11th History Lesson 1 Notes in English

1. Early India: From the Beginnings to the Indus Civilisation

Introduction

- India experienced an early development of cultures and civilisations. Since the Old Stone Age, several groups in India had migrated multiple times and made cultural adaptations to diverse eco-zones.
- Each group evolved its own culture responding to their living experiences in each place, which eventually led to pluralistic beliefs and systems.
- From a life of **foraging through nomadic pastoralism**, the settlers in Indus region reached a matured stage of living in the Bronze Age.
- This chapter focuses on the history of India from the **first settlement of humans in the Stone Age**, up to the decline of the Indus Civilisation. It dwells on the Neolithic cultures as well.

Sources

- Archaeological sources form the bedrock of information for us to understand this long span
 of time in Indian history.
- They include archaeological sites, geological sediments, animal bones and fossils, stone tools, bone tools, rock paintings and artefacts. There is no written evidence for this period. Although the Harappans used a script, it is yet to be deciphered.
- The faunal (animal) and floral (plant) sources are important for understanding the relationship of the Stone Age people with their environment. Floral evidence found in the form of charred seeds, **pollens and phytoliths (plant stones)** helps us to gain knowledge of farming practiced by Stone Age people.
- The human genes also constitute an important source for understanding prehistoric migrations. The mitochondrial DNA (mt-DNA) studies provide information on pre-historic migrations.
- Scientists are trying to extract ancient DNA from the bones of the pre-historic era to understand human dispersals.
- Language is another important source of history. Indo-Aryan, Dravidian, Austro-Asiatic and Tibeto-Burman language families have flourished in India. These languages developed and evolved during the various phases of migrations in Indian history.

Pre-historic India

• The period before the development of script is called the pre-historic times. It is also referred to as the Stone Age.

- When we talk about the Stone Age, we include the entire South Asia, the region covering
 India, Pakistan, Sri Lanka, Nepal and Bangladesh, as a whole. Human ancestors are likely to
 have first evolved in Africa and later migrated to different parts of the world.
- The earliest human ancestor species to migrate out of **Africa was the Homo erectus**. Till the end of the 20th century, the pre-history of India was considered to have begun within the time span of **one million years (MYR) ago**.
- But, recent investigations have produced evidence for the presence of human ancestors in India between two million and one million years ago.
- Generally, the period before the invention of script is broadly divided into **Stone Age, Bronze Age and Iron Age**.
- Hence, the names of materials that they used (for example, painted grey ware culture or Iron Age culture) or the geographical region (Indus) or the first site to be identified (for example, Acheulian or Harappan) are used to name the cultures.
- The earliest age in history is called Old Stone Age or Palaeolithic. This period is divided into
 - 1. Lower Palaeolithic culture
 - 2. Middle Palaeolithic culture
 - 3. Upper Palaeolithic culture.
- The period after the Old Stone Age (Palaeolithic) is called the Mesolithic Age. The period that followed the Mesolithic is called the Neolithic Age.
- This is the age in which animal and plant domestication developed, leading to food production. The classification of these cultures is done on the basis of stratigraphic, chronological and lithic (stone tool) evidence.

Lower Palaeolithic Culture

- The earliest lithic artefacts come from different parts of the Indian subcontinent. During the Lower Palaeolithic cultural phase, human ancestor species of Homo erectus is believed to have lived in India.
- The first Palaeolithic tools were identified at the site of **Pallavaram near Chennai by Robert Bruce Foote in 1863**. He found many prehistoric sites when he extensively surveyed different parts of South India.
- Since then, numerous Palaeolithic sites have been identified and excavated all over India.

Lithic Tools

- The study of pre-history mainly depends upon lithic tools. Pre-historic sites are identifiable based on the presence of stone tools. Human ancestors made large stone blocks and pebbles and chipped tools out of them, using another strong stone.
- Hand axes, cleavers, choppers and the like were designed in this way by flaking off the chips.

- The tools show well thought-out design and physical symmetry, and convey highquality cognitive (perception) skills and capabilities of pre-historic humans.
- They used the tools for hunting, butchering and skinning the animals, breaking the bones for bone marrow and to recover tubers and plant foods, and for processing food.
- The industries of Palaeolithic cultures are divided into the Early, Middle and Late Acheulian Industries. The early Acheulian tools include polyhedrons, spheroids, hand axes, cleavers and flake tools.
- The Acheulian tradition is absent in the Western Ghats, coastal areas and north-eastern India. Heavy rainfall is attributed to its absence. Uncongenial conditions and lack of raw materials might have prevented the occupation of these areas.
- Perhaps there was no necessity for the pre-historic people to move into these areas. These sites are found more in Central India and in **south-eastern part of India (near Chennai)**.
- These areas receive high rainfall and are therefore endowed with thick green cover and rich resources.

Distribution

- Lower Palaeolithic tools are found in most parts of India, except in a few regions of the Ganges valley, southern Tamil Nadu and in the hilly areas of the Western Ghats.
- Athirampakkam, Pallavaram and Gudiyam near Chennai, Hunsgi valley and Isampur in Karnataka, and Bhimbetka in Madhya Pradesh are some important Palaeolithic sites where the Acheulian tools are found.

Chronology

Recent research places the beginning of lower Palaeolithic around two million years ago. This culture continued upto 60,000 years ago.

Hominin and Animal Fossils

- Unlike Africa, evidence of **hominin [immediate ancestor of Homo Sapiens]** fossil is rare in India.
- There is a report of a fossil fragment discovered by Robert Bruce Foote from Athirampakkam. Its whereabouts are not known now.
- The only well-known hominin fossil of India was found at Hathnora near Hoshangabad in Madhya Pradesh. The cranium is named Narmada human. A partly preserved hominid skull cap was found in a basal conglomerate deposit in 1982.
- It is considered to represent the Archaic Homo sapiens. It is the only existing fossil find of human ancestors in India.
- Animal fossils are useful to understand the palaeo-environmental context in which people lived.

- In the Narmada valley, animal fossils of Elephas namadicus (giant tusked pre-historic elephant), Stegodon ganesa (a giant pre-historic elephant), Bos namadicus (wild cattle) and Equus namadicus (extinct great horse like animal) have been recovered.
- Teeth of Equus, evidence of water buffalo and nilgai as well as 17 animal hoof prints have been uncovered at Attirampakkam They suggest an open, wet landscape near the Chennai region in the pre-historic period.

Way of Life

- The people of Lower Palaeolithic culture hunted animals and gathered roots, nuts and fruits.
 They fed on the flesh and bones of animals killed by predators.
- They lived in open air, river valleys, caves and rock shelters, as seen from evidence in **Bhimbetka in Madhya Pradesh** and Gudiyam near Chennai.
- The pre-historic human ancestors, who belonged to the species of Homo erectus, did not have a complex language culture like us, the Homo sapiens.
- They may have expressed a few sounds or words and used a sign language.
- They were intelligent enough to select stones as raw material and used the hammer stones to carefully flake the rocks and design tools.



Hathnora archaic Homo sapiens fossil skull fragment



Elephas namadicus



Bos Namadicus

Middle Palaeolithic Culture

- After about 4,00,000 years BP (Before Present), changes took place in the lithic technology and the species of human ancestors diverged. The species of Homo erectus existed in this period.
- Some of the Middle Palaeolithic tools are attributed to behavioural modernity. Anatomically modern humans are said to have emerged around 3,00,000 years ago.
- In India, the Middle Palaeolithic phase was first identified by H.D. Sankalia on the Pravara River at Nevasa.
- After this discovery, several sites of this period have been identified. Recently, the Middle Palaeolithic of Athirampakkam is dated to be around 3.85-1.72 lakh years BP. Indian Middle Palaeolithics probably may be as old as the African Middle Palaeolithic culture.

Industries and Tool Types

- The tool types of the Middle Palaeolithic period are hand axes, cleavers, choppers, chopping tools, scrapers, borers and points, projectile points or shouldered points, and knives on flakes.
- Flake industry was predominant in the Middle Palaeolithic period and tools such as scrapers, points and borers were made. Scrapers were used for wood and skin working.

Chronology

The Middle Palaeolithic culture in India is dated between **3,85,000 and 40,000 BCE**. While the African Middle Stone Age is associated with the Homo sapiens, it is associated with the Neanderthals in Europe. No hominin fossil bones of this species have been found in India.

Distribution

The Middle Palaeolithic sites are found in Narmada, Godavari, Krishna, Yamuna and other river valleys.

Ways of Life and Main Characteristics

The Middle Palaeolithic people occupied open-air, cave and rock shelter sites. They were huntergatherers. The main features of the Indian Middle Palaeolithic period include the following:

- The tools became smaller
- The decrease in the use of hand axes in relation to other tools
- Use of core preparation techniques in stone tool production
- Use of chert, jasper, chalcedony and quartz as raw materials.

Upper Palaeolithic Culture

- The cultural phase that followed the Middle Palaeolithic is called Upper Palaeolithic. This period is marked by innovation in tool technology and increased cognitive capability of humans.
- The modern humans, who first evolved in sub-Saharan Africa, sometime before **300,000 years ago**, migrated to and occupied various parts of Asia around **60,000 years ago**.
- They probably replaced the earlier populations. There is a possibility that these new groups were responsible for the Upper Palaeolithic culture of India.

Lithic Tools and Industries

- The lithic industry of the Upper Palaeolithic period is based on blade and bone tool technologies.
- **Microliths (tiny stone tools)** were introduced in the Upper Palaeolithic Period and these tools were made using different varieties of silica-rich raw materials.
- Bone tools and faunal remains have been found in Kurnool caves in Andhra Pradesh.

Chronology

The Upper Palaeolithic culture is represented in India at several sites. A time bracket of c. **40,000** years to 10,000 years BP is suggested for this period.

Distribution

- The people of this period used caves as well as the open air space for living. Meralbhavi in Karnataka, Kurnool caves and Godavarikhani in Telangana, Baghor I and Baghor III of Son Valley in Madhya Pradesh and Patne in Maharashtra are some of the Upper Palaeolithic sites of India.
- Sri Lanka has evidence of microliths and hominin fossils. Incised ostrich eggshell, and shell and stone beads have been found at Jwalapuram in Andhra Pradesh, Patne in Maharashtra and Batadomba-Lena and Fa Hien Cave in Sri Lanka.

Ways of Life and Main Characteristics

- Evidence of art in the Upper Palaeolithic period appears in the form of paintings. Beads and ornaments of this period have also been found.
- The lithic blade industry advanced in this period. Some of the green colour paintings of Bhimbetka are dated to Upper Palaeolithic period based on style and archaeological evidence.

Mesolithic Culture

- Mesolithic sites are found in most parts of India. They occur in all eco-zones from the coasts to the hills: sand dunes, rock shelters, deltaic regions, lake areas, forested territories, hilly and mountainous areas, rocky terrains and coastal environments.
- Mesolithic sites in India are found in Paisra (Bihar), Langhnaj (Gujarat), Baghor II, Chopani Mando, Sarai Nahar Rai, Mahadaha and Damdama (all in Uttar Pradesh), Sankanakallu and Kibbanahalli (Karnataka).
- Rock shelter sites are found in Lekhakia, Baghai Khor, Adamgarh and Bhimbetka. Coastal sites are seen at Mumbai, teri sites of Thoothukudy in Tamil Nadu and Vishakapatnam, which have microlithic evidence.

Climate

- After the Ice Age, with the advent of global warming, human groups became highly mobile and began to occupy various ecozones.
- The monsoon pattern had already emerged. Some regions witnessed higher rainfall. At Didwana in western Rajasthan, fresh water lakes were known to exist between 10,000 and 3500 BP.

 The animal bones from this period suggest a dry deciduous type of forest during the Mesolithic period.

Chronology

- The date of the Mesolithic culture varies in different parts of the world. This culture is assigned to pre-agricultural times in certain areas. In Levant (Eastern Mediterranean), they are dated between 20,000 and 9500 BCE.
- In India, Mesolithic cultures appeared around 10,000 BCE. In certain parts of India including Kerala and Tamil Nadu, it continued up to 1000 BCE, till the beginning of the Iron Age.
- In Sri Lanka, the microliths appeared about 28,500 years BP.

Economy

- Hunting wild animals and gathering plant food and fishing were people's main occupation during this age.
- Agriculture was not practised in the early stages. At the end of the Mesolithic period, humans domesticated animals and paved the way for the Neolithic way of life. The rock paintings of Central India depict hunting, trapping, fishing and plant food collection.
- The faunal evidence from this period shows that people belonging to this **period hunted** cattle, gaur, buffalo, barasingha, porcupines, sambar, chital, gazelle, hog deer, nilgai, jackal, turtle, fish, wild hare, lizard fox and monitor lizard.
- Bones of rhinoceros and elephant have also been found. They used spears, bow and arrow and traps. The paintings of Bhimbetka show that various animals were hunted and for this men and women went together.
- The people used fire and perhaps roasted food. Domestic animal bones of cattle, sheep, goats, pig and dog have been found at Kanewal, Loteshwar and Ratanpur, and from Adamgarh and Bhimbetka in Madhya Pradesh sites. Camel bones have been found from Kanewal.

Camps and Houses

- The Mesolithic people were highly mobile. They moved in search of animals and plant foods. They made temporary huts and also used caves and rock shelters.
- Circular huts with postholes and burnt clay lumps bearing reed impressions have been found. Many of caves and shelters feature paintings. Circular huts are seen in rock paintings.
- The temporary huts were built using perishable materials. Traces of oval and circular huts and possible wattle daub are found in **Chopani Mando and Damdama in Uttar Pradesh and Bagor and Tilwara in Rajasthan**.

Burials

The Mesolithic people buried the dead, which suggests their beliefs and humane relationships. Human skeletons have been found in **Mahadaha**, **Damdama and Sarai Nahar Rai in Uttar Pradesh**. At Mahadaha, a man and a woman were buried together. One burial had an ivory pendant as the grave good.

Art

- Art is an integral part of human existence. While evidence of art is found in Europe in large volume, they are found only at a few sites in India.
- A chert stone used as a core had geometric engravings from Chandravati in Rajasthan, bone objects from Bhimbetka and human tooth engraved with geometric design. Rock paintings are found in the rock shelters of Madhya Pradesh and Central India.
- They show people hunting, trapping animals and fishing and dancing. Bhimbetka near Bhopal, Raisen and Pachmarhi in Madhya Pradesh and South Mirzapur in Uttar Pradesh are some of the sites.
- Haematite, an iron-rich stone with traces of rubbing, has been found. These people might have decorated themselves with flowers and leaves.

Hunter and gatherers of the Historical Period

- The hunter and gatherers using microlithic tools continued to live in the later period, even after the development of Neolithic, Iron Age and historical periods.
- Perhaps they became part of the marginalised communities, when the people who lived in the cities acquired more wealth.
- Some of the people who live in the forests even today in some remote areas and also in the Andaman region could be considered as those people who prefer to live by hunting and gathering.
- Many such groups lived in the 19th and 20th century, as recorded in the Edgar Thurston's Castes and Tribes of Southern India. Describing them as primitive is incorrect.
- They should be considered as people who preferred to live by hunting and gathering. When the Indus Civilisation was in its peak, Tamil Nadu had microlithic hunter-gatherers.
- The Andhra–Karnataka region had the agro-pastoralists of the Neolithic period.

Characteristics of the Mesolithic Cultures

- The Mesolithic people lived in semipermanent and temporary settlements
- They occupied caves and open grounds
- They buried the dead
- They had artistic skill
- They were spread over wider geographical regions
- Cultural continuity is noticed in many parts of India from this period
- Their microlithic tools enabled them to hunt smaller animals and birds.

Early Neolithic Cultures and the Beginning of Agriculture



Neolithic sites of India.

- The Neolithic period marked the beginning of agriculture and animal domestication. It is an important phase in Indian history.
- Early evidence of Neolithic culture is found in the Fertile Crescent region of Egypt and Mesopotamia, the Indus region, the Ganges valley of India and also in China.
- Between 10,000 BCE to 5000 BCE, agriculture emerged in these regions, which led to several cultural developments.
- The introduction of domestication of animals and plants resulted in the production and supply of a large quantity of grains and animal food. The fertile soil deposited by the rivers

- enhanced the growth of agriculture, generating a surplus of grains. Surplus food production played a major role in the rise of early civilisations.
- Large villages came to exist and pottery developed. Permanent residences were built. Hence, the cultural developments of this period are called Neolithic revolution.
- The Neolithic cultures of India are divided into various regional cultures and they flourished in different time periods.
- In the north-western part of India and Pakistan, it began at a very early date. In north-eastern India, Neolithic cultures appeared at a very late date, around the early historic time.

The Neolithic Culture of North-Western India

- The Neolithic culture of north-western India is the earliest to have evidence of plant and animal domestication in India. Mehrgarh, Rana Ghundai, Sarai Kala and Jalilpur are some of the Neolithic sites.
- These sites are now situated in Pakistan. The site of Mehrgarh has produced evidence of early Neolithic times, dating to c. 7000 BCE. Wheat and barley were cultivated and sheep, goat and cattle were domesticated. This culture preceded the Indus Civilisation.
- The first cultural period (I) of the Neolithic age at Mehrgarh dates from c. 7000 to 5500 BCE.
- The people belonging to this age did not use pottery, but cultivated six-row barley, emmer and einkorn wheat, jujube, ilanthai and dates, and also domesticated sheep, goat and cattle. They were semi-nomadic, pastoral groups.
- They built their houses with mud and buried the dead. They used ornaments of sea shell, limestone, turquoise, lapis lazuli and sandstone. The period II at Mehrgarh dates from c. 5500 to 4800 BCE and the period III from 4800 to 3500 BCE.
- There is evidence for pottery during these periods. Terracotta figurines and glazed faience beads have been found.
- Evidence for ornaments on women has been uncovered. Longdistance trade was practiced, as revealed by **Lapis Lazuli**, which is available only in Badakshan.
- The town was abandoned after the rise of mature phase of the Indus Civilisation.

The Neolithic Culture of Kashmir

- Neolithic culture in Kashmir region was contemporary to the Harappan civilisation. Burzahom, an important site of this culture, provides evidence for the Megalithic and Early Historic Periods.
- In this place, people lived in pit houses (about four metres in depth) in order to escape the cold weather. The houses were oval in shape, wide at the bottom and narrow on the top.
- Postholes used for constructing a thatched structure were found around the pit houses. The Neolithic period of Kashmir had domestic sheep, goat and cultivated plants.

- The Neolithic people of Burzahom traded with the people of the Harappan Civilisation. They used handmade pottery. They used tools such as stone axes, chisels, adzes, pounders, maceheads, points and picks.
- Awls were used for stitching skins into clothes to beat the weather. Scrapers were used for working the skins.
- Two phases of Neolithic culture have been identified. They are termed aceramic and ceramic phases. Aceramic phase did not have evidence of ceramics. Ceramic phase shows evidence for the existence of pottery.
- In the ceramic phase, people built mud houses. They used copper arrowheads. They also used black ware pottery, beads of agate and carnelian and painted pottery. A burial at this site produced wild dog bone and antler horn.
- An engraving of a hunting scene is depicted on a stone here with dog and sun. Seeds of
 wheat, barley, common pea and lentil have been recovered from the excavations. people
 domesticated animals include cattle, sheep, goat, pig, dog and fowl. Bones of wild animals
 such as red deer, Kashmir stag, ibex, bear and wolf suggest that they hunted animals.
- There is evidence of menhirs and the use of redware pottery and metal objects in the megalithic culture.
- The use of lentil suggests that contacts had been established with Central Asia. These people had interactions with Harappan Civilisation.

The Neolithic Culture of Ganges Valley and Central India

- In the Ganges Valley, and in Central India Neolithic sites are found at Lehuradeva, and Chopani Munda. The site of Lehuradeva has produced early evidence of rice cultivation dated to c. 6500 BCE.
- These sites are characterised by cord-marked pottery. Koldiwa, Chirand, Senuwar and Mahagara are important Neolithic sites in this region. These sites also have evidence of pottery and plant and animal domestication.
- Evidence for the cultivation of hulled and six-rowed barley, several types of wheat, rice, pea, green gram, and gram/chicken pea, mustard, flax/linseed and jackfruit have been found at the sites of Central India.
- Sheep, goat and cattle bones have been found besides bones of wild animals. The Neolithic people used a type of pottery with cord impression on the surfaces.
- They used microliths, bone and antler tools and terracotta objects. These sites perhaps flourished till about the middle of the **second millennium BCE**.

The Neolithic Culture of Eastern India

• The Neolithic sites are found at many sites in Bihar and West Bengal. Birbhanpur and Chirand are some of the prominent Neolithic sites in this region along with **Kuchai**, **Golbaisasan and Sankarjang**.

These cultures show similarities with the Neolithic complexes of east and Southeast Asia.
 Pointed butt celts, chisel and shouldered axes have been found in the region from the Neolithic era.

Neolithic Culture of South India

- The Neolithic cultures of South India have been found mainly in Andhra Pradesh and Karnataka and the north-western part of Tamil Nadu.
- These sites have ash mounds in the centre with settlements around them. More than 200 Neolithic sites have been identified as part of the Neolithic complex.
- These sites are found near the granite hills with water sources. These sites have been spotted in the river valleys of Godavari, Krishna, Pennaru, Tungabhadra and Kaveri. Sanganakallu, Tekkalakota, Brahmagiri, Maski, Piklihal, Watkal, Hemmige and Hallur in Karnataka, Nagarjunakonda, Ramapuram and Veerapuram in Andhra Pradesh and Paiyyampalli in Tamil Nadu are the major Neolithic sites in South India.
- Some early Neolithic sites have ash mounds. Utnur and Palvoy in Andhra Pradesh and Kodekal, Kupgal and Budihal in Karnataka feature ash mound sites. Soft ash and decomposed cow dung layers are also found at this site.
- The evidence of habitation in the form of houses and burials are found around the ash mounds.

Neolithic Culture of North-eastern India

- In north-eastern India, Neolithic culture appears at to a very late period. The Neolithic cultures of north-eastern India generally date from 2500-1500 BCE or even later.
- Shouldered axes and splayed celts have been found at the sites in Assam, Meghalaya, Nagaland and Arunachal Pradesh. Daojali Hading and Sarutaru are the Neolithic sites in the Assam region.
- This region bears evidence for shifting cultivation. Cultivation of yams and taro, building stone and wooden memorials for the dead, and the presence of Austro-Asiatic languages are the marked features of this region, which shows cultural similarities with South-east Asia.

The Indus Civilisation

- The Indus Civilisation represents the first phase of urbanisation in India.
- While the civilisation was in its peak, several cultures, namely, Mesolithic and Neolithic cultures that we discussed earlier in the chapter, prevailed in other parts of India.

Nomenclature, Phases and Chronology

• The civilisation that appeared in the northwestern part of India and Pakistan in third millennium BCE is collectively called the Indus Civilisation.

- Since Harappa was the first site to be identified in this civilisation, it is also known as Harappan Civilisation. This civilisation did not appear all of a sudden.
- The beginnings of the Neolithic villages in this region go back to about **7000 BCE at the**Neolithic site of Mehrgarh. Harappan culture is divided into various phases:
- 1. Early Harappan 3000-2600 BCE
- 2. Mature Harappan 2600-1900 BCE
- 3. Late Harappan 1900-1700 BCE
- The urban phase was prevalent in the mature Harappan period and began to decline afterwards. The Indus valley site of Harappa was first visited by Charles Mason in 1826, and Amri by Alexander Burnes in 1831. The site of Harappa was destroyed for laying the railway line from Lahore to Multan.
- The seal from this site reached Alexander Cunningham, the first surveyor of the Archaeological Survey of India (ASI).
- Alexander Cunningham visited the site in 1853, 1856 and 1875. But the importance of the site
 and the associated civilisation were not realised until Sir John Marshal took over as the
 Director General of ASI and initiated research at the site.
- Sir John Marshal played an important role in the development of archaeology in India. Later
 in the 1940s, Mortimer Wheeler excavated the Harappan sites. After the partition of the
 Indian subcontinent, many of the Harappan sites went to Pakistan and thus archaeologists
 were keen to trace the Harappan sites on the Indian side.
- Kalibangan, Lothal, Rakhi Garhi and Dholavira are the Indian sites that have been since excavated. The explorations and excavations conducted after the 1950s have helped to understand the Harappan Civilisation and its nature.

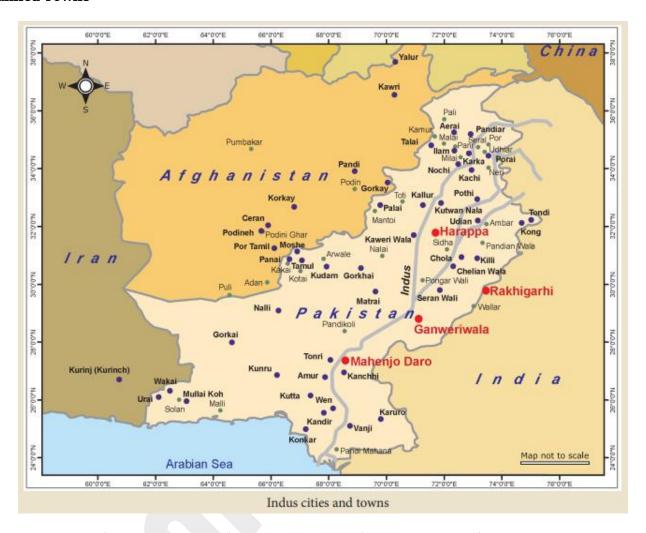
Geographical Area and the Settlements

- The Indus Civilisation and the contemporary cultures covered nearly 1.5 million sq. km area in India and Pakistan.
- The settlements of Sutkagen-dor in the west on the Pakistan- Iran border; Shortugai (Afghanistan) in the north; Alamgirpur (Uttar Pradesh, India) in the east and Daimabad (Maharashtra, India) in the south are the boundaries of this civilisation. Its core area was in the regions of Pakistan, Gujarat, Rajasthan and Haryana.

The Early Beginnings

- The Indus region (Mehrgarh) is one of the areas of the world where agriculture and animal domestication began very early.
- We do not know if there is any continuity between the Neolithic cultures of the Indus region and the later urban civilisation.
- The early Harappan phase saw the development of villages and towns in the entire region. In the Mature Harappan phase, urban centres developed.

Planned Towns



- Harappa (Punjab, Pakistan), Mohenjo-Daro (Sindh, Pakistan), Dholavira, Lothal, and Surkotada (Gujarat, India), Kalibangan and Banawali (Rajasthan, India), and Rakhigarhi (Haryana, India) are the major cities in the Harappan period.
- Fortification, wellplanned streets and lanes and drainages are noticed in the Harappan towns. A civic authority perhaps controlled the planning of the towns.
- The Harappans used baked and unbaked bricks, and stones for construction. The towns had a grid pattern and drainages were systematically built.
- The houses were built of mud bricks while the drainages were built with burnt bricks. Houses had more than one floor.
- The site of **Mohenjo-Daro had a planned town, built on a platform**. It has two distinct areas. One is identified as a citadel and another as the lower town. The houses had bathrooms paved with burnt bricks and proper drains.
- Some houses had stairs indicating the existence of an upper floor. The houses had multiple rooms. Many of the houses had a central courtyard with rooms all around.

- The citadel area had important residential structures that were either used by the public or select residents. In Mohenjo-Daro, a building has been identified as a warehouse.
- The **Great Bath is a tank situated within a courtyard**. The corridors were present on all four sides and stairs are seen on the northern and southern sides. It was well paved with several adjacent rooms.
- Some structures are identified as granary. The bricks were laid watertight with gypsum mortar. It had drainage. It is associated with a ritual bath.
- The structures identified as granary or Great Bath should be seen as archaeologists' interpretations.

Subsistence and Economic Production

- Agriculture was an important source of subsistence for the Harappans.
- The Harappans cultivated diverse crops such as wheat, barley, lentil, chickpea, sesame and various millets.
- Agricultural surplus was an important stimulus for a number of developments. They adopted a double cropping system. The Harappans used ploughs.
- They perhaps ploughed the land and then sowed the seeds. **Ploughed fields have been found** at Kalibangan. They used both canal and well irrigation.

Animal Domestication

- Pastoralism was also practised by the Harappans. They domesticated sheep, goat and fowl. They had knowledge of various other animals including **buffalo**, **pig and elephant**. But horse was not known to them.
- The Harappan cattle are called Zebu. It is a large breed, often represented in their seals. They also ate fish and birds. Evidence of boar, deer and gharial has been found at the Harappan sites.

Craft Production

- Craft production was an important part of the Harappan economy. **Bead and ornament** making, shell bangle making and metalworking were the major crafts.
- They made beads and ornaments out of carnelian, jasper, crystal, and steatite, metals like copper, bronze and gold and shell, faience and terracotta or burnt clay.
- The beads were made in innumerable designs and decorations. They were exported to Mesopotamia and the evidence for such exported artefacts have been found from the excavations in Mesopotamian sites.
- Certain Harappan sites specialised in the production of certain craft materials. The following table presents the major centres of craft production.

Pottery

Material	Site or Source
Shell	Nageshwar and Balakot
Lapis lazuli	Shortughai
Carnelian	Lothal
Steatite	South Rajasthan
Copper	Rajasthan and Oman

- The Harappans used diverse varieties of pottery for daily use. They use well-fired pottery. Their potteries have a deep red slip and black paintings.
- The pottery are shaped like dish-on-stands, storage jars, perforated jars, goblets, S-shaped jars, plates, dishes, bowls and pots.
- The painted motifs, generally noticed on the pottery, are pipal leaves, fish-scale design, intersecting circles, zigzag lines, horizontal bands and geometrical motifs with floral and faunal patterns.
- The Harappan pottery is wellbaked and fine in decorations.

Metal, Tools and Weapons

- The Harappan civilisation belongs to the Bronze Age civilisation and Harappans knew how to make copper bronze tools.
- Although they produced bronze implements, they needed various kinds of tools for agriculture and craft production.
- The Harappans used chert blades, copper objects, and bone and ivory tools. The tools of points, chisels, needles, fishhooks, razors, weighing pans, mirror and antimony rods were made of copper.
- The chert blades made out of Rohrichert was used by the Harappans. Their weapons include arrowheads, spearhead, celt and axe. They did not have the knowledge of iron.

Textiles and Ornaments

- The Harappans wore clothes and used metal and stone ornaments. They had knowledge of cotton and silk. The image identified as a priest is depicted wearing a shawl-like cloth with flower decorations.
- The terracotta images of women are shown wearing different types of ornaments. The image of dancing girl found at MohenjoDaro is shown wearing bangles in large numbers up to the upper arm.
- They made carnelian, copper and gold ornaments. Some of them had etched designs and they exported them to the Mesopotamian world. Faience, stoneware and shell bangles were also used.

The ornaments produced were either sold or exchanged as part of the trade activities.

Trade and Exchange

- One of the sources of Harappan economy was trade and exchange activities. Harappans had close trade contacts with the Mesopotamians and also with various cultures of India.
- The Harappan seals and materials have been found in the Sumerian sites in Oman, Bahrain, and Iraq and Iran. The cuneiform inscriptions mention the trade contacts between Mesopotamia and Harappans.
- The mention of "Meluhha" in the cuneiform inscriptions refers to the Indus region. A Harappan jar has been found in Oman. Harappan seals, weights, dice and beads are found in Mesopotamia.
- Carnelian, lapis lazuli, copper, gold and varieties of wood were exported to Mesopotamia.
 Harappans also interacted with various regions of India and acquired raw materials and processed them.

Weights and Measures

- Harappans had developed proper weights and measures. Since they were involved in commercial transactions, they needed standard measures. Cubical chert weights have been unearthed from Harappan sites.
- The weights exhibit a binary system. The ratio of weight is doubled as 1:2:4:8:16:32. The small weight measure of 16th ratio weighs 13.63 grams. They also used a measuring scale in which one inch was around 1.75 cm.
- Weights made of chert were cubical. They used binary numbering system (1, 2, 4, 8, 16, 32, etc.). They might have been used for weighing jewellery and metal.

Seals, Sealings and Scripts

- The seals from various media such as steatite, copper, terracotta and ivory are frequently found in the Harappan sites.
- The Harappan script has not yet been convincingly deciphered. About **5,000 texts** have been documented from the Harappan sites.
- The longest text has about **twenty six signs**. Some scholars are of the view that it is Dravidian.
- Seals might have been used as an identity marker on the materials that were transported. They might have indicated the ownership.

Arts and Amusement

• The terracotta figurines, the paintings on the pottery, and the bronze images from the Harappan sites suggest the artistic nature of the Harappans.

- "Priest king" of steatite, dancing girl of copper (both from MohenjoDaro), and stone sculptures from Harappa, Mohenjo-Daro and Dholavira are the important objects of art.
- Toy carts, rattles, wheels, tops, marbles and hop scotches exhibit the amusement of the Harappan people.

Faith and Belief System

- The Indus people worshipped nature. They worshipped the **pipal tree**. Some of the terracotta figures appear to be mother goddess.
- Fire altars have been identified at Kalibangan. They buried the dead. Burials were made elaborately and evidence of cremation is also reported.
- The Harappan burials have pottery, ornaments, jewellery, copper mirrors and beads. These suggest their belief in an afterlife.

Polity

- Uniformity in pottery, seals, weights and bricks reveals the existence of a polity. Labour mobilisation may also suggest the existence of a political system.
- Harappa and Mohenjo-Daro might have had a citystate like polity.
- The uniformity in the cultural materials and measurement units point to a central authority during the Harappan times.

Authorship and the Making of Indian Culture

- One school of thought argues that the authors of Harappan Civilisation were speakers of the Dravidian languages.
- The archaeological evidence shows movement of the Harappans to the east and the south after the decline of their civilisation.
- Some of the Harappan people could have moved into different parts of India. However, only the decipherment of the script would give us a definite answer.

Contemporary Cultures of the Indus Civilisation

- Several groups including pastoral people, farmers and hunter-gatherers lived in the Indus region. The Indus region had villages and large towns.
- The population of that time was mixed. Innumerable communities of hunters-gatherers, pastoral people and farmers, from Kanyakumari to Kashmir and Gujarat to Arunachal Pradesh could have existed during this period. Their history is also equally important, as cultural and ecological knowledge of all these groups contributed to Indian culture.
- While the Indus Civilisation was flourishing in the north-western part of India, several cultures were developing in different parts of India. In the southern part of the subcontinent, Kerala and Sri Lanka were given to hunting and gathering.

- The Harappans who had knowledge of water crafts might have had connections and interactions with South India, but no clear archaeological evidence on this is available.
- The northern part of South India, i.e. the Karnataka and Andhra region, had Neolithic cultures, engaged in pastoralism and plough agriculture.
- Similarly, the Chalcolithic cultures were prevalent in Deccan and western India, while Neolithic cultures permeated northern India including Kashmir, Ganges valley and central and eastern India. Thus India was a cultural mosaic during the time of the Harappans.

Decline

- The Indus Valley Civilisation declined from about 1900 BCE. Changes in climate, decline of
 the trade with the Mesopotamia, and the drying of the river and water resources due to
 continuous drought are some of the reasons attributed by historians for the decline.
 Invasions, floods and shifting of the river course are also cited as reasons for the ruin of
 Indus civilisation.
- In course of time, the people shifted to the southern and eastern directions from the Indus region.

More to Know:

1. Indus Civilisation and Tamil Civilisation

- The Indus Civilisation represents the first urbanisation of Indian history. The origin and authorship of the Indus Civilisation are keenly debated historical questions.
- The Indus script has not yet been conclusively deciphered and hence the authorship is not certain. The graffiti found on the megalithic burial pots of South India and the place names presented are cited to establish the relationship between Indus and Tamil cultures.
- The archaeological evidence points to several groups of people living in Tamil Nadu and South India continuously from the Mesolithic period. One cannot rule out the migration of a few groups from the Indus region.
- More research is necessary before arriving at any definite conclusion. The towns of ancient
 Tamizhagam such as Arikamedu, Keezhadi and Uraiyur that flourished are part of the
 second urbanisation of India and these towns are quite different from the Indus cities.

2. Rohri chert

The chert, a fine grained sedimentary rock, was found in the region of **Rohri in Pakistan**. It was used by the Harappans for making stone blades and tools.

3. Archaeobotanists study ancient agriculture, and human and environmental relationships

4. Early Dentistry in the Neolithic Mehrgarh

- The human ancestors had knowledge of medicinal herbs and were capable of taking care of health for survival from the pre-historic times.
- As their ways of life changed, new diseases appeared and they had to find remedies. From the Neolithic period, people began to eat ground grain and cooked food, which caused dental and other health problems.
- The earliest evidence for drilling human tooth (of a living person) has been found at Mehrgarh. It is seen as a prelude to dentistry.

5. Teri

A costal landscape caused by **sand dunes**. These soils may have originated in the **Pleistocene epoch** of the Quaternary period.

6. Ostrich Egg Shells

Evidence of ostrich has been found in some pre-historic sites of India. The egg shell of this bird had been used as beads and those from **Patne have been dated to 25,000 BP**. They are found in **Bhimbetka and Patne**.

7. An Upper Palaeolithic Shrine

An interesting find is of a possible shrine, indicated by a block of sandstone surrounded by a rubble circle, similar to the contemporary shrines. Found at **Baghor in Uttar Pradesh**, it is the earliest known evidence of a shrine in India.

8. Equus refers to the genus of animals including horses, asses and zebras.

9. Acheulian and Sohanian

- Based on research, two independent cultural traditions of hand axe (Acheulian) and pebble-flake (Sohanian) industries were confirmed in India. Acheulian industry mainly had hand axes and cleavers.
- The Sohan industry is considered to have used only chopper and chopping tools. The Sohan industry gets its name from the Sohan river valley of Pakistan. These two cultural traditions are not considered distinct any longer.
- Recent studies argue that there was no independent Sohan tradition as Acheulian tools are found in the Sohan industry as well.

10. Wild and Domestic

Wild plants and animals grow naturally and independently. When they are domesticated, their lifestyle and physical characteristics (such as self-propagation) change. Consequently, the seeds of domestic plants become smaller in size. In the case of domesticated animals, they lose their ferociousness.