Ancient India

TEST 10

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6th Term I

Unit -1 - What is history?

History is the study of past events in chronological order

· We understand the period and lifestyles of people of Old Stone Age from used stone tools, like what you understand about your grandpa and his time from his diary writing.

· What are the other sources that help us understand the lifestyles of Stone Age people?

· We came to know their hunting style through their paintings on the rocks and the walls of the caves Rock paintings? It sounds really surprising. Why did they draw these paintings?

Numismatics – The study of Coins
Epigraphy- The study of inscription

· Some would have stayed back, without joining the hunting team. So for their benefit, these pictures could have been drawn. They might have done it as a part of their passtime.

· The period between the use of first stone tools and the invention of writing systems is pre-history. Stone tools, excavated materials and rock paintings are the major sources of pre-history.

Indus Civilization

· Initially, people lived in groups. Then they formed communities out of these groups. Then evolved the societies which in due course become civilisations.

Mighty Emperor Ashoka

The most famous ruler of ancient India was Emperor Ashoka. It was during his period that Buddhism spread to different parts of Asia. Ashoka gave up war after seeing many people grieving death after the Kalinga war. He embraced Buddhism and then devoted his life to spread the message of peace and dharma. His service for the cause of public good was exemplary. He was the first ruler to give up war after victory. He was the first to build hospitals for animals. He was the first to lay roads. Dharma Chakra with 24 spokes in our national flag was taken from the Saranath Pillar of Ashoka.

Even though Emperor Ashoka was great, his greatness had been unknown until 20th century.The material evidence provided by William Jones, James Prinsep and Alexander Cunningham revealed the greatness of Emperor Ashoka. Based on these accounts, Charles Allen wrote a book titled The Search for the India's Lost Emperor, which provided a comprehensive account of Ashoka. Many researches made thereafter brought Ashoka's glorious rule to light. These inscriptions were observed on the rocks, SanchiStupa and Saranath Pillar and helped to understand the greatness of Ashoka to the world.

· Now one can understand the importance of historical research. But for the efforts of scholars, the greatness of Emperor Ashoka would not have come to light. That is the period between pre history and history

· The period for which records in writing are available but not yet deciphered is called proto history. Today, we are leading a safe life with all modern equipment. But our ancestors did not live in such a safe environment. There might have been chances of wild animals entering their caves. But, they realised that dogs could help them prevent the entry of such dangerous animals by its sniffing skill. Hence they started domesticating dogs for their protection and hunting activities.

· We also know how inscriptions, monuments, copper plates, accounts of foreigners or foreign travellers and folk tales play a vital role in constructing and reconstructing history.

'Dhamma' is the prakrit word for the sanskrit term 'dharma', which means religious duty.

6th term I
Unit -2 Human Evolution

The story of human evolution can be scientifically studied with the help of archaeology and anthropology

· They pushed the button to 1950 CE. They saw mostly people walking, a few riding bicycles and buses appearing rarely on the roads. Slowly they moved back to 1850. There were no buses or cycles. Carts pulled by mules and bullocks were seen on the roads. Horse-drawn cart was a rare occurrence.

· Then turned the button to 8,000 years back. People were engaged in raising crops and livestock. She pushed the button to get a picture of life 18,000 years ago. She saw the humans living in caves. They were using tools made of stones and bones for hunting was frightened by the hunting scene and pushed the button forward to return to the present.

· Anthropologists have unearthed the footprints of humans in a country called Tanzania, which is in eastern Africa. They were found in rock beds submerged under the sand.

Archaeology is the study of pre historic humans remained materials used by pre historic humans. Excavated material remains are the main source for archaeological studies

Anthropology is the study of humans and evolutionary history.
The word anthropology is derived from two Greek words: anthropos meaning "man" or "human"; and logos, meaning "thought" or "reason." Anthropologists attempt, by investigating the whole range of human development and behavior, to achieve a total description of cultural and social phenomena.

· Radio carbon dating was used to ascertain the period. It was found out that the foot prints of humans they had discovered were about 3.5 millions years old. When there is sudden change in nature, the living beings adapt themselves to the changes and survive. Humans have thus evolved over millions of years adapting themselves to the changing times.

People and their Habitat
Australopithecus - East Africa
Homohabilis-South Africa
Homoerectus - Africa and Asia
Neanderthal - Eurasia (Europe and Asia)
Cro-Magnons - France
Peking -China

Homo sapiens - Africa Heidelbergs- London

Cromagnons learned to live in caves.Lascaus caves in France is the evidence for cave living of Cromagnons. They habitude to bury the dead

· Human evolution means the process through which the humankind changes and develops towards an advanced stage of life.

· `Homo sapiens who migrated out of eastern Africa settled in different parts of the world. Their lifestyle also evolved and they made it suitable to the environs in which they lived. So humans in different places adopted different forms of lifestyle. Based on the weather, climate and nature of the living place, their physique and complexion also differed. This resulted in the formation of different races. Human procreation resulted in an increase in the population.

Hunting and Food Gathering

· Millions of years ago, our ancestors led a nomadic life. They lived in groups in a cave or a mountain range. Each group consisted of 30 to 40 people. They kept on moving in search of food. They hunted pig, deer, bison, rhino, elephant and bear for food. They also scavenged the animals killed by other wild animals like tiger. They learnt the art of fishing. They collected honey frombeehives, plucked fruits from the trees and dug out tubers from the ground. They also collected grains from the forest. Once the food resource got exhausted in one area, they moved to another place in search of food. They wore hides of animals and barks of trees and leaves for protecting their bodies during winter. So humans began hunting to satisfy their need for food.

· Hunting was the main occupation of humans in the past. It was difficult for humans to kill a big animal with a stick or a stone. So they decided to use sharpened weapons.

· The best stone for the making weapons was chikki – mukkikal (flint). It is known for its strength and durability. Humans spent many hours in search of a flint stone. They made sharp weapons and tools with the help of the stones and fitted them with wood to grip them. Humans created tools like axes with big stones.

· The axes were made to cut trees, remove barks, dig pits, hunt animals and remove the skin of animals.

· Humans discovered the use of fire.

Even today in the villages of Nilgiris district in Tamil Nadu, people have the habit of making fire without use of match box.

· At first, humans were afraid of fire and lightning. Probably fire caused by lightning had killed many wild animals. Humans tasted the flesh of the killed animals, which was soft and tasty. This made humans aware of the effect of fire. They used flint stone to make fire and used it to protect them from predators, for cooking food and for creating light during night. Thus fire became important for man in olden times.

· The next human invention was the wheel. This was the first scientific invention of humans using their brain and cognitive skills

Invention of the Wheel

· The invention of wheel by humans is considered to be the foremost invention. When humans saw the stones rolling down from the mountains, probably they would have got the idea of making the wheel.

Pot Making

· Humans learned to make pot with clay. The invention of wheel made pot making easier, and the pots made were burnt to make it stronger. They decorated pots with lot of colours. The colour dyes were made from the extracts of roots, leaves or barks. These natural dyes were used in rock paintings.

Hunting scene in which men and women are taking part

· In fact, it is the first art of humanity. Before the use of language, humans expressed their feelings through actions and also recorded it in rock paintings.

Ancient Rock Paintings

· In India, we can see many paintings in rocks and caves. The rock paintings give some information about the past. Approximately there are 750 caves, in which 500 caves have paintings. There are many more undiscovered caves. The rock paintings depict hunting pictures of the male and the female, dancing pictures and pictures of children playing.

· We are able to gain some knowledge about the past lifestyle through these paintings.

· These rock and cave paintings tell us many stories about our ancestors.

· There were many dangers involved in hunting. Due to large-scale hunting in the mountain areas and in the forests, many animals became extinct. Non availability of meat forced the humans to look for fruits and vegetables for food.

· The seed of fruits and the nuts they ate were thrown into the soil. During rains, the soil gave it life. Some days later, the saplings sprouted from the soil. By observation and logic, they learn that:

Ø a plant grows from a single seed and yields lots of fruits and vegetables.

Ø seeds that fall in the river beds sprout easily.

Ø plants grow faster in water fed areas.

Ø alluvial soil is more suitable for plant growth than any other.

· With the above knowledge they gained, they realised that with proper sowing and nurturing, they could increase the number of plants more than the ones that grew naturally. Thus agriculture and farming came into existence. They domesticated theanimals and used them in their farming.

· Breeding of animals now became an important part of their life. Oxen were used for ploughing. Oxen made the practice of agriculture easier. Life was becoming organised than it was, when they were hunting. It enabled them to settle down in a place. Now with settlement came the problem of utensils and vessels for cooking and storage. The potter's wheel and fire solved this problem.

· The invention of plough helped the farming practices. Farming started with the clearing of land and burning the left-over shrubs. They ploughed the land, sowed seeds in them and harvested the produce. Once the fertility of the soil decreased, they moved to a new place. Initially agriculture was done for immediate food requirement. Later when they found out ways to increase production, they started storing the produce. The food products stored were used during the lean harvest periods. By their experience, they understood that land close to the river side was suitable for farming. So they decided to stay there permanently.

· Humans thought of ways to better their skills at hunting. They found out that the dogs could sniff other animals and chase them away. So humans found them useful for hunting. Thus dogs became the first animal to be domesticated by humans. Following the dogs, they started domesticating hen, goat and cow.

· Humans stayed on the plains for a long time. During this period, they have not only learnt agriculture, but slowly developed skills of handicraft. Permanent settlement in a place increased the yield of crops. Now they had grains in excess of what they consumed. The surplus grains were exchanged with other groups for the other things they were in need of. This is called the barter system. Thus trade and commerce developed and towns and cities emerged.

6th term 1
Unit - 3 Indus Civilization

Why did people settle near rivers?

People preferred to settle near the rivers for the reasons given below.

- Ø The soil is fertile.
- Ø Fresh water is available for drinking, watering livestock and irrigation.
- Ø Easy movement of people and goods is possible.

Discovery of a lost city – Harappa

The ruins of Harappa were first described by the British East India Company soldier and explorer Charles Masson in his book. When he visited the North-West Frontier Province which is now in Pakistan, he came across some mysterious brick mounds. He wrote that he saw a "ruined brick castle with very high walls and towers built on a hill". This was the earliest historical record of the existence of Harappa.

In 1856 when engineers laid a railway line connecting Lahore to Karachi, they discovered more burnt bricks. Without understanding their significance, they used the bricks for laying the rail road.

In the 1920s archaeologists began to excavate the cities of Harappa and Mohenjo-Daro. They unearthed the remains of these long-forgotten cities. In 1924 the Director General of ASI, Sir John Marshall, found many common features between Harappa and Mohenjo-Daro. He concluded that they were part of a large civilization.

Some slight differences are found in the earthenwares of Harappa and Mohenjo-Daro. This made the researchers conclude that Harappa was older than Mohenjo-Daro.

The Archaeological Survey of India (ASI) was started in 1861 with Alexander Cunningham as Surveyor. Its headquarters is located in New Delhi.

How do archaeologists explore a lost city?

- ü Archaeologists study the physical objects such as bricks, stones or bits of broken pottery (sherds) to ascertain the location of the city and time that it belong to.
- ü They search the ancient literary sources for references about the place.
- ü They look at aerial photographs of the excavation sites or cities to understand the

topography.

- ü To see under the ground, they may use a magnetic scanner
- ü The presence and absence of archeological remains can be detected by RADAR and Remote Sensing Methods.

Sites in Indian borders

Archaeologists found major Harappan sites within Indian borders

Time Span of Indus Civilisation

Geographical range: South Asia
Period: Bronze Age
Time: 3300 to1900 BCE (determined using the radiocarbon dating method)
Area: 13 lakh sq.km
Cities: 6 big cities
Villages: More than 200

Urban Civilisation

Harappan civilisation is said to be urban because of the following reasons

- Ø Well-conceived town planning
- Ø Astonishing masonry and architecture
- Ø Priority for hygiene and public health
- Ø Standardised weights and measures
- Ø Solid agricultural and artisanal base.

Unique Features of Harappan Civilisation

· Town planning is a unique feature of the Indus Civilisation. The Harappan city had two planned areas.

Mehergarh – the Precursor to Indus Civilisation
Mehergarh is a Neolithic site. It is located near the Bolan Basin of Balochistan in Pakistan. It is one of the earliest sites known. It shows evidence of farming and herding done by man in very early times. Archaeological evidence suggests that Neolithic culture existed in Mehergarh as early as 7000 BCE

Streets and Houses

- Ø The streets are observed to have a grid pattern. They were straight running from north to south and east to west and intersected each other at right angles

- Ø The roads were wide with rounded corners

- Houses were built on both sides of the street. The houses were either one or two storeys

- Most of the houses had many rooms, a courtyard and a well. Each house had toilets and bathrooms

- The houses were built using baked bricks and mortar. Sun-dried bricks were also used. Most of the bricks were of uniform size. Roofs were flat

- There is no conclusive evidence of the presense of palaces or places of worship.

why burnt bricks are used in construction?
They are strong, hard, durable, resistant to fire and will not dissolve in water or rain.

Bronze Age
It is a historical period characterised by the use of articles made of bronze

Drainage System

- Many of these cities had covered drains. The drains were covered with slabs or bricks.

- Each drain had a gentle slope so that water could flow.

- Holes were provided at regular intervals to clear the drains.

- House drains passed below many lanes before finally emptying into the main drains.

- Every house had its own soak pit, which collected all the sediments and allowed only the water to flow into the street drain.

The Great Bath

- The great bath was a large, rectangular tank in a courtyard. It may be the earliest example of a water-proof structure

- The bath was lined with bricks, coated with plaster and made water-tight using layers of natural bitumen

- There were steps on the north and south leading into the tank. There were rooms on three sides

Ø Water was drawn from the well located in the courtyard and drained out after use.

The Great Granary

Ø The granary was a massive building with a solid brick foundation
Ø Granaries were used to store food grain
Ø The remains of wheat, barley, millets, sesame and pulses have been found there.

A granary with walls made of mud bricks, which are still in a good condition, has been discovered in Rakhigarhi, a village in Haryana, belonging to Mature Harappan Phase

The Assembly Hall

· The Assembly Hall was another huge public building at Mohenjo-Daro. It was a multi-pillared hall (20 pillars in 4 rows to support the roof).

Trade and Transport

Ø Harappans were great traders.

Ø Standardised weights and measures were used by them. They used sticks with marks to measure length

Ø They used carts with spokeless solid wheels

Ø There is evidence for extensive maritime trade with Mesopotamia. Indus Seals have been found as far as Mesopotamia (Sumer) which are modern-day Iraq, Kuwait and parts of Syria

Ø King Naram-Sin of Akkadian Empire (Sumerian) has written about buying jewellery from the land of Melukha (a region of the Indus Valley)

Ø Cylindrical seals similar to those found in Persian Gulf and Mesopotamia have also been found in the Indus area. This shows the trade links between these two areas.

A naval dockyard has been discovered in Lothal in Gujarat. It shows the maritime activities of the Indus people.

Dockyard at Lothal

Lothal is situated on the banks of a tributary of Sabarmati river in Gujarat.

Leader in Mohenjo-Daro

- Ø A sculpture of a seated male has been unearthed in a building, with a head band on the forehead and a smaller ornament on the right upper arm.
- Ø His hair is carefully combed, and beard finely trimmed.
- Ø Two holes beneath the ears suggest that the head ornament might have been attached till the ear.
- Ø The left shoulder is covered with a shawl-like garment decorated with designs of flowers and rings.
- Ø This shawl pattern is used by people even today in those areas

Technology

- Ø Indus people had developed a system of standardised weights and measures.
- Ø Ivory scale found in Lothal in Gujarat is 1704mm (the smallest division ever recorded on a scale of other contemporary civilisations).

The word 'civilisation' comes from the ancient Latin word civis, which means 'city'.

This little statue was found at Mohenjo-Daro. When Sir John Marshall saw the statuette known as the dancing girl, he said, "When I first saw them I found it difficult to believe that they were pre-historic modeling. Such as this was unknown in the ancient worlds up to the age of Greece. I thought that these figures had found their way into levels some 3000 years old to which they properly belonged".

KVT Complex (Korkai-Vanji-Thondi) spread over Afghanistan and Pakistan has many places, names of those were mentioned in sangam literature.
Korkai, Vanji, Tondi, Matrai, Urai and Kudalgarh are the names of places in Pakistan.
Gurkay and Pumpuhar in Afghanistan are related to the cities and ports mentioned in the Sangam Age. The names of the rivers Kawri and Poruns in Afghanistan and the rivers KaweriWala and Phornai in Pakistan also occur in the Sangam literature.

Do you know The hidden treasures of the Indus civilisation

- · Inscriptions (written in a script of those times) can provide us information about customs, practices and other aspects of any place or time. So far, the Indus script has not been deciphered. Therefore, we must look for other clues to know about the Indus people and their lifestyle

Apparel

- Cotton fabrics were in common use.
- Clay spindles unearthed suggest that yarn was spun.
- Wool was also used.

Love and peace

- Settlements were built on giant platforms and elevated grounds
- The Indus Civilisation seems to have been a peaceful one. Few weapons were found and there is no evidence of an army
- They displayed their status with garments and precious jewellery
- They had an advanced civic sense.

Ornaments

- Ornaments were popular among men and women
- They adorned themselves with necklaces, armlets, bangles, finger rings, ear studs and anklets.
- The ornaments were made of gold, silver, ivory, shell, copper, terracotta and precious stones.

Iron was unknown to people of Indus

Copper was the first metal discovered and used by humans

Indus people used the red quartz stone called Carnelian to design jewellery.

Who Governed them?

· Historians believe that there existed a central authority that controlled planning of towns and overseas trade, maintenance of drainage and peace in the city.

Occupation

- The main occupation of the Indus Civilisation people is not known.
- However, agriculture, handicrafts, pottery making, jewellery making, weaving, carpentry and trading were practiced
- There were merchants, traders and artisans.
- Rearing of cattle was another occupation.
- People of those times knew how to use the potter's wheel

Ø They reared domesticated animals.

Pottery

Ø Pottery was practiced using the potter's wheel. It was well fired. Potteries were red in colour with beautiful designs in black.

Ø The broken pieces of pottery have animal figures and geometric designs on it.

Religious Belief

· We don't have any evidence pointing to specific deities or their religious practices. There might have been worship of Mother Goddess (which symbolized fertility), which is concluded based upon the excavation of several female figurines.

Toy Culture
Toys like carts, cows with movable heads and limbs, clay balls, tiny doll, a small clay monkey, terracotta squirrels eating a nut, clay dogs and male dancer have been found.
They made various types of toys using terracotta, which show that they enjoyed playing

The earliest form of writing was developed by Sumerians

What happened to Harappans?

· By 1900 BCE, the Harappan culture had started declining. It is assumed that the civilisation met with

Ø repeated floods

Ø ecological changes

Ø invasions

Ø natural calamity

Ø climatic changes

Ø deforestation

Ø an epidemic

Archaeological site at Mohenjo-Daro has been declared as a World Heritage Site by UNESCO

Radiocarbon Dating Method: A Standard Tool for Archaeologists
Also known as C14 method, the radiocarbon method uses the radioactive isotope of carbon called carbon14 to determine the age of an object.

General Facts about Indus Civilisation

- Ø It is among the oldest in the world.
- Ø It is also the largest among four ancient civilisations
- Ø The world's first planned cities are found in this civilisation
- Ø The Indus also had advanced sanitation and drainage system
- Ø There was a high sense of awareness on public health.

9th Book

Evolution of Humans and Society – Pre Historic Period

· Prehistoric people were the pioneers of creative knowledge. From the artefacts and the languages they developed, we are able to understand how intelligent they were.

Origin of the Earth and the Geological Ages

· The history of humans is closely related to the history of the earth. The earth contains geological, archaeological and biological records of historical times in its upper layers. They are important for reconstructing the history of the earth and various living organisms. The fossil bones of the human ancestors are embedded in the earth's layers.

· Palaeoanthropologists and archaeologists excavate the soil and rock layers on the earth and extract evidence about human ancestors. These layers and the fossils are scientifically dated to study the various stages in human evolution and prehistory. Through the gathered evidence, they attempt to understand the evolution of human history and developments in a chronological order.

· Archaeology is the study of human past through the analysis and interpretation of material remains.

· Palaeoanthropology is the study of the human ancestors and their evolution by the study of the fossil remains.

· The earth was formed approximately 4.54 billion years ago. Gradually, conditions emerged for the growth of organisms. Then plants and animals came into being, and thereby foundation was laid for the evolution of humans. The long span of time in the history of earth is divided into eras, periods and epochs by the geologists

1 billion = 100 crore
1 million = 10 lakh

· Australopithecines were the apes from which modern humans evolved. Now they are extinct, but they are considered to be the close relatives of humans.

Human Enquiries into the Past and Origin of the World

The Age of Speculation

· Humans are the only species on earth concerned with understanding as well as explaining the world and the universe. In the course of evolution, humans became conscious and knowledgeable. They turned curious and began to think and ask questions about nature, organisms and the world around them. At first, they considered nature as God. They worshipped sun, moon and various natural forces about which they developed their own understanding, some of which is not scientific. The lack of scientific knowledge on the creation of the world is reflected in the ancient writings and religious literature.

BC (BCE) – Before Common Era
AD (CE) - Common Era

Scientific Foundations of Geology, Biology and Archaeology

· The beginning of history writing can be traced to the ancient Greeks. Herodotus (484–425 BC (BCE)) is considered the Father of History, because the history he wrote was humanistic and rationalistic.The rise of scientific enquiry into the origin of humans was possible because of

Ø The interest in collection of archaeological remains and the opening of museums after the Renaissance Movement;
Ø The development of ideas of stratigraphy and geology;
Ø Darwin's theory of biological evolution;
Ø The discovery of human and animal fossils, stone tools, and artefacts of early civilizations; and
Ø The ability to decipher early scripts

· Stratigraphy – The study of origin, nature and relationships of rock and soil layers that were formed due to natural and cultural activities.

· Oldest Museum – The museum of Ennigaldi- Nanna in Mesopotamia was established in 530 BC (BCE). The Princess Ennigaldi was the daughter of the neo-Babylonian king Nabonidus.The Capitoline Museum in Italy is perhaps the oldest surviving museum (1471 AD (CE)) at present. Ashmolean Museum at Oxford University is the oldest university museum in the world. It was established in 1677 AD (CE)

· Herbert Spencer's (1820–1903 AD (CE)) biological evolution, and Charles Darwin's (1809–1882 AD (CE)) theory on concepts of natural selection and survival of the fittest contributed to the scientific understanding of human origins. Charles Darwin published the books On the Origin of Species in 1859 and The Descent of Man in 1871.

Natural selection – The process by which organisms that are better adapted to their environment would survive and produce more offspring.

Survival of the fittest means "survival of the form that will leave the most copies of itself in successive generations."

Fossil – Prehistoric animal or plant that turns into stone over a period of time (millions of years) because of chemical and physical processes. Animal bones are preserved due to mineralization. Palaeontology is the study of fossils.

Stone Age – the period when stone was mainly used for making implements.

Bronze Age – the period when bronze metallurgy (extraction of metal from ores) developed.

Iron Age – the period when iron was smelted to produce implements.

· Since the 19th century, scholars have used advanced scientific techniques. They undertook systematic studies to contribute to the current state of knowledge on prehistory,human origins and the early civilisations. Now the theory of human evolution is widely accepted.

Prehistory: From Australopithecus through Homo erectus to Homo sapiens

· The chimpanzee, gorillas and orangutans, along with humans, are collectively called the Great Apes. Among them, the chimpanzee is genetically the closest to humans.

· The ancestors to humans were called Hominins, and their origins have been traced in Africa. They evolved from those origins and then began to move to other parts of the world in due course of time. The Hominins emerged around 7 to 5 million years ago. Skeletons of Australopithecus, one of the early species of this tribe, have been found in Africa.

· The Great Rift Valley in Africa has many sites that have evidence for the prehistoric period.

The DNA of a chimpanzee is 98% identical to that of a human being

· The Great Rift Valley is a valley-like formation that runs for about 6,400 km from the northern part of Syria to Central Mozambique in East Africa. This geographical feature is visible even from the space, and many prehistoric sites are found in eastern Africa.

· Human ancestors are divided into various species according to their physical features.

Hominid refers to all the species of the modern and extinct great apes, which also includes humans.

Hominins (a zoological tribe) refers to the close relatives of human ancestors and their sister species including Homo sapiens (the modern humans) and the extinct members of Homo neanderthalensis, Homo erectus, Homo habilis and various species of Australopithecines. Humans are the only living species of this 'tribe'. They stand erect, walk with two legs and have large brains. They can use tools and a few of them can communicate. It excludes the gorillas.

· Homo habilis (handy human) was the earliest known human ancestors to make tools in Africa about 2.6 million years ago. Around 2 million years ago, the species of Homo erectus/ergaster emerged. This species made hand axes between 2 and 1 million years ago. They began to spread into various parts of Asia and Africa in time.

· Anatomically, modern humans, called Homo sapiens (wise man), first appeared around 3,00,000 years ago in Africa. It is believed that these modern humans eventually migrated and dispersed into various parts of the world from around 60,000 years ago.

Prehistoric Cultures

· Prehistoric period does not have evidence of writing. While the fossil bones are classified as various species such as Homo habilis, Homo erectus and Neanderthalensis, based on the lithic tools, cultures are assigned names such as Earliest Lithic Assemblages, Oldowan Technology, Lower, Middle and Upper Paleolithic and Mesolithic cultures.

The chimpanzee and the pygmy chimpanzee (also known as bonbo) are our closest living relatives.

Earliest Lithic Assemblages of Human Ancestors

· The earliest tools made by human ancestors are found in Lomekwi in Kenya. They are dated to 3.3 million years. Oldowan tools occur in the Olduvai gorge in Africa. They are 2 to 2.6 million years old. The human ancestors (Australopithecines) used hammer stones and produced sharp-edged flakes. The tools were used for cutting, slicing and processing food.

Lower Paleolithic Culture

· The Lower Paleolithic Culture is marked by the human ancestors belonging to the species Homo habilis and Homo erectus. The human ancestors flaked large stone blocks and designed various tools including hand axes. These tools, which are found in Africa, Asia, and Europe, are dated the earliest to about 1.8 million years ago. They made various tools such as hand axes and cleavers to meet their subsistence needs. These tools are also known as bifaces. These tools have physical

symmetry and convey the humans' cognitive (perception) skills. This culture is called the Lower Paleolithic Culture. The hand axe tools are also known as Acheulian. This tool-making tradition continued till 250,000 years to 60,000 years ago in India.

Acheulian – They were first hand axes recognized at a place called St. Acheul in France. Hence they are called Acheulian tools.

Bifaces are tools that have flaking on both sides (bi = two, face = side).

· Subsistence necessities of prehistoric humans were mainly food and water.

· The human ancestors perhaps did not possess complex language skills as we have now. They might have voiced a few sounds or words and possibly used 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 for their needs. They hunted animals, fed on the meat of the animals killed by predators and gathered plant foods such as roots, nuts and fruits. In India, the Acheulian tools have been found near Chennai and many other sites such as Isampur in Karnataka and Bhimbetka in Madhya Pradesh.

· Raw material is the naturally available stone block or pebbles selected by humans for making tools. Since these stones produced flakes with sharp edges, they were selected for making stone tools.

· Core is the main block of stone from which small chips are flaked by using a hammer stone.

· Flake is a small chip removed from a large stone block called the core.

Middle Paleolithic Culture

· After about 3,98,000 years BC (BCE), further changes took place in the lithic technology in Africa. The Homo erectus species existed during this period. Anatomically modern humans are said to have emerged around 3 lakh years ago.

Lithic Technology: 'Lith' means stone. The methods and techniques involved in the production of stone tools are called Lithic technology.

· The hand axes turned out to be much attractive in design and many smaller tools were also produced. The core was prepared and then tools were made. Points and scrapers were used. Short blades were also produced. The lithic tool-making tradition of the Levalloisian belonged to this period. The tools made during this time are found in Europe and Central and western Asia.

· Levalloisian tools are the implements made after preparing the core. It was named after the town of Levallois in France.

· The Middle Paleolithic Culture appeared between 3,85,000 and 1,98,000 years BC (BCE) ago in Europe and parts of western and South Asia. The tools that were made during this period were in use till about 28,000 BC (BCE).

· The people of this period were called Neanderthals. They buried the dead people systematically. Perhaps they were the first human ancestors to mourn death properly and bury the dead.

Upper Paleolithic Culture

The cultural phase that succeeded the Middle Paleolithic is called the Upper Paleolithic phase. This period was marked by innovation in tool technology. Long blades and burins were produced during this time. People used different varieties of silica- rich raw materials in this phase. Numerous paintings and art objects were made. The diversity of artefacts suggests the improvement in cognitive skills and the development of languages. Microliths appeared in this phase.

Burin is a stone-made chisel with a sharp cutting edge

· The modern humans, who first appeared as a result of human evolution in the sub- Saharan Africa 300,000 years ago, began to move to various parts of Asia around 60,000 years ago. They probably replaced the earlier populations. In Europe, humans known as Cro-Magnons lived in this period.

· Horns and ivory were used for making tools and art works. Bone needles, fishhooks, harpoons and spears were also employed creatively. The humans of this time wore clothes and cooked food. The dead were placed in the burials with folded hands placed over their chest. Pendants and richly carved tools were also seen in use. Evidences from paintings, clay model sculptures and carvings are available. Images of Goddess Venus made up of stones and bones in Europe and in some parts of Asia.

Ice Age – the period before 8,000 BC (BCE) when many parts of the world remained covered by ice sheets and snow

Mesolithic Culture

· Mesolithic period is known as the Middle Stone Age, as it is placed between the Paleolithic and Neolithic periods. People mainly used microlithic (small stone) tools during this period. These people were hunter- gatherers. With the global warming occurring after the Ice Age, they became highly mobile and occupied various eco-zones.

· People of Mesolithic period widely employed microlithic technology. They made tiny artefacts that were less than 5 cm in size. They produced points, scrapers

and arrowheads. They also used geometric tools such as lunates, triangles and trapezes. These tools were hafted onto wooden or bone handles and used.

Microliths are stone artefacts of small size.

Neolithic Culture and the Beginning of Agriculture

· The period called Neolithic marks the beginning of agriculture and animal domestication. It is an important phase in history. Early evidence of the Neolithic period is found in the fertile crescent region of Egypt and Mesopotamia, the Indus region, the Gangetic valley and in China. By about 10,000 BC (BCE) to 5000 BC (BCE), agriculture had come to be practised in these regions.

Wheat, barley and peas were cultivated around 10,000 years ago. Fruit and nut trees were cultivated around 4,000 BC (BCE). They comprised olives, figs, dates, pomegranates and grapes.

· Fertile Crescent Region refers to the area covering Egypt, Israel-Palestine and Iraq, which is in the shape of crescent moon.

· Neolithic Age is called the 'new age', because of the new grinding and polishing techniques used for the tools. The Neolithic people also used the flaked stone tools. Until the Mesolithic period, people mainly hunted and gathered food for their subsistence. By hunting and gathering people obtained very limited food as a result of which only a small number of people could exist in a particular region.

· The introduction of domestication of animals and cultivating plants at home led to production and supply of large quantities of grains and animal food. The fertile soil deposited by the river on its banks helped the growth of agriculture. People preferred to live on river banks as it was better for adaptation. As a result of domestication and cultivating plants, there was an excess food production. The surplus food production was a main factor for the development of early civilisations. Permanent residences were built and large villages emerged as a result. Hence, the development of this period is called Neolithic Revolution.

Prehistoric Tamilagam

Lower Paleolithic Culture in Tamil Nadu

· One of the oldest Stone Age tools in the world made by human ancestors, calledhominins, had been produced in Tamil Nadu. These stone tools are found near the Chennai region at several sites, especially at Athirampakkam. The archaeological excavations at this site and cosmic-ray exposure dating of the artefacts suggest that people lived here about 1.5 to 2 million years ago. The Kosasthalaiyarriver is one of the major cradles of human ancestors in the world. The people who lived here belonged to the species of Homo erectus.

Archaeological excavation refers to digging undertaken to recover archaeological evidence such as stone tools, pottery, animal bones and pollens, in order to understand the past lifestyle of humans.

Cosmic-ray exposure dating – A method in which exposure to cosmogenic rays is done for dating the samples.

· In 1863, Sir Robert Bruce Foote, a geologist from England, first discovered Paleolithic tools at Pallavaram near Chennai. They are the earliest finds of such tools in India. Hence, the hand axe assemblages were considered the Madras Stone Tool Industry. The tools that he discovered are now housed in the Chennai Museum.

· The Paleolithic people hunted wild animals and gathered the naturally available fruits, roots, nuts and leaves. They did not have knowledge of iron and pottery making, which developed much later in history.

· Hand axes and cleavers are the important tool types of the Lower Paleolithic period. These tools fitted with a wooden and bone handle were used for cutting, piercing and digging. The people of this time also used hammer stones and spheroids. The quartzite pebbles and cobbles were chosen as raw materials. The tools are found in the soil deposits and also in the exposed river side. They occur at Pallavaram, Gudiyam cave, Athirampakkam, Vadamadurai, Erumaivettipalayam and Parikulam.

· The Lower Paleolithic tools are also found in the North Arcot and Dharmapuri districts. The people belonging to this period used basalt rocks for manufacturing artefacts. However, the southern part of Tamil Nadu and Sri Lanka do not have evidence of Lower Paleolithic Culture.

Basalt rocks are igneous rocks: Igneous rocks are those formed from the molten lava from the earth.

· The Lower Paleolithic Culture is datable to about 2 - 1.5 million years at Athirampakkam. This cultural phase continued in other parts of India up to 300,000 years ago.

Middle Paleolithic Culture in Tamil Nadu

· In the course of time, the Middle Paleolithic Culture emerged during 3,85,000 - 1,72,000 years ago. The tool types of this period underwent a change and smaller artefacts were used. Cores, flakes, scrapers, knives, borers, Levalloisian flakes, hand axes and cleavers are the artefact types of this period. Compared to the previous phase, these tool types became smaller in size.

· Evidence for the Middle Paleolithic Culture can be observed in some parts of Tamil Nadu. In the southern part of Tamil Nadu, at T. Pudupatti and Sivarakkottai, artefacts of the Middle Paleolithic tools have been collected. Also near Thanjavur and Ariyalur, similar artefacts have been found.

Mesolithic Culture in Tamil Nadu

· In many parts of the world, and in some parts of India, the Upper Paleolithic Culture succeeded the Middle Paleolithic Culture. There is no evidence for the Upper Paleolithic Culture in Tamil Nadu. But the people who used microliths or small-stone artefacts lived in many parts of TamilNadu. Athirampakkam and Gudiyam Cave yielded both Early and Middle Paleolithic artefacts. Since this cultural period occurs between Paleolithic and Neolithic Culture, it is known as Mesolithic Culture or Middle Stone Age.

· Evidence for the existence of Mesolithic hunter-gatherers is found at Chennai, North Arcot, Dharmapuri, Salem, Coimbatore, Ariyalur, Tiruchirappalli, Pudukkottai, Madurai, Sivagangai, Tirunelveli and Kanyakumari. The teri sites near Thoothukudi have evidence of microlithic artefacts. These sites have red sand dunes called teris.

· The people of this period used small artefacts made of chert and quartz. The tool types are scrapers, lunates and triangles. These people hunted wild animals and gathered fruits, nuts and roots for their subsistence.

Scrapers are tools used for scraping the surfaces. Scrapers are similar to the tools used in the kitchen for removing skin of vegetables.

Triangles are tools in the shape of triangles

Lunates are tools in the shape of a crescent.

Neolithic Culture in Tamil Nadu

· The culture that domesticated animals and cultivated crops is called Neolithic. It is known as the New Stone Age. The Neolithic people used polished stone axes called celts. Cattle rearing was their main occupation. They lived in small villages with houses made of thatched roof and walls plastered with

Timeline: The Course of Cultures in Ancient Tamilagam

Culture	Time Period	Cultural Traits
Paleolithic Period	Circa. 20,00,000 years to circa. 8,000 BC (BCE)	Hand axes, cleavers Hunting and gathering

Mesolithic Period	Circa. 8,000 years to circa. 1,300 BC (BCE)	Microlithic tools No knowledge of metal Hunting of animals and birds Gathering of plant food
Neolithic Period	Circa. 2,000 BC (BCE) to 1,000 BC (BCE)	Polished Stone Axes Microliths Domestication of animals Cultivation of crops Multiplicity of groups Co-existence of hunter-gatherers and pastoral groups
Iron Age	Circa. 1,300 BC (BCE) to 500 BC (BCE)	Megalithic burial custom Co-existence of hunter-gatherers and pastoral groups Development of chiefdom Knowledge of iron, black and red ware, black ware ceramics Craft specialisation, specialised groups: potters, blacksmiths
Early Historic and Sangam Age	300 BC (BCE) to 300 AD (CE)	Cultural traits of Iron age Monarchies of Chera, Chola and Pandya Development of hero worship Poetic traditions and literature Trade and exchange by sea

clay. Evidence of Neolithic village is found at Payyampalli in Vellore district and a few sites in the Dharmapuri region.

Neolithic people perhaps devised the first pottery. They made pottery, using a slow wheel called turn-table or made pottery out of hand. Before firing, the pottery was polished with pebbles. This process is known as burnishing.

· Payyampalli is a village in Vellore district of Tamil Nadu. The earliest evidence for the domestication of animals and cultivation of plants is found at this site, which was excavated by the Archaeological Survey of India. Evidence for

pottery making and cultivation of horse gram and green gram has been found in this village.

Iron Age/Megalithic period

· The cultural period that succeeded the Neolithic is called the Iron Age. As the name suggests, people used iron technology. It preceded the Sangam Age. The Iron Age was a formative period and the foundation for the Sangam Age was laid in this time. During the Iron Age, many parts of Tamil Nadu were occupied by people. An exchange relationship developed among the people.

The people of this age had knowledge of metallurgy and pottery making. They used iron and bronze objects and gold ornaments.

Lemuria and the Tamils

Some researchers relate the origin of the Tamils to the submerged continent of Lemuria. This theory of Lemuria continent was proposed in the 19th century. In the wake of advancements in plate tectonics theory, differing views are put forth by scholars.

The available literary references point to the submergence of areas around Kanyakumari. Some parts of Sri Lanka and Tamil Nadu were connected by land about 5000 years BC (BCE). It is possible that some land might have submerged near Kanyakumari and around the coast of India, because of the rising sea levels. Underwater surveys are necessary in this area.

Archaeological research reveals that at least a section of people may have been living continuously in South India, including Tamil Nadu, from the Mesolithic and Neolithic times.

· They used shell ornaments and beads made of carnelian and quartz. The evidence for Iron Age is found at many sites including Adhichanallur in Thoothukudi district, Sanur near Madhuranthakam and Sithannavasal near Pudukkottai. Megalithic burial sites are found in the whole of Tamil Nadu.

Megalithic Burial Types

· The Iron Age is also known as megalithic, since people created burials with large stones for the dead people. Within these burials, the skeletons or a few bones of the dead persons were placed along with grave goods including iron objects, carnelian beads and bronze objects. Some of the burials do not have human bones and they have only the grave goods. They may be called memorial burials.

· Grave goods are the objects placed in the burials along with the physical remains (bones) of the dead. People may have believed that these would be useful in the after-life. Egyptian pyramids also have similar artefacts.

· Similar burials were also built in the early historic period or the Sangam Age. The Sangam literature mentions the various burial practices of the people. The megalithic burials are classified as dolmens, cists, menhirs, rock-cut caves, urn burials and sarcophagus. The burial types of Kodakkal (umbrella stone), Toppikkal (hatstone) and Paththikal (hoodstone) are found in Kerala.

· Dolmens, table-like stone structures, were erected as funerary monuments. Cists are stone enclosures buried under the earth. They were created by placing four stone slabs on the sides, one on top of each other. The cists and dolmens have openings called portholes. Urns are pottery jars and were used for burying the dead. Sarcophagi are burial receptacles made of terracotta. They sometimes had multiple legs. Menhirs are pillar-like stones erected as part of the burials or memorials.

· Portholes are holes found in the cists and dolmens on one side. They may have acted as the entrance to the burials. There is a view that they were meant for the movement of the soul or spirit.

· The menhirs may have been erected for the heroes in the Iron Age. The tradition of hero stones might have begun in the Iron Age or even before.

Agriculture and Pastoralism

· The people in the Iron Age practiced agriculture, domesticated cattle and sheep, and some of the groups were still hunting and gathering. Millets and rice were cultivated. Irrigation management developed in this period, since many of the megalithic sites are found nearby rivers and tanks. In the deltaic regions, irrigation as a technology had developed. Evidence of rice is seen in the megalithic sites like Adhichanallur in Thoothukudi district and Porunthal near Palani.

Iron Age Society and Polity

· The Iron Age society had farming communities, pastoralists and hunter gatherers. Craft specialists, potters and blacksmiths were the professionals during this period. The society had several groups of peoples (tribes). The size of the burials and the variations found in the burial goods suggests the existence of numerous social groups and their diverse practices. Some of them seem to have had organised chiefdoms. Cattle lifting leading to wars and encroachment and expansion of territories had also started taking place in this period.

Pottery

· Pottery is an important evidence found in the archaeological sites. The Iron Age and Sangam age people used the black and red colours to make black ware and red ware pottery. Potteries were used for cooking, storage and dining purposes. The black and red ware pottery has a black inside and a red outside, with lustrous surfaces.

Iron Technology and Metal Tools

· The megalithic burials have abundant iron objects placed in the burials as grave goods. Weapons such as swords and daggers, axes, chisels, lamps and tripod stands are also found. Some of these objects were hafted to wooden or bone or horn handles and used. The iron tools were used for agriculture, hunting, gathering and in battles. Bronze bowls, vessels with stylish finials decorated with animals and birds, bronze mirrors and bells have also been found.

9th book

Unit – 2 Ancient Civilizations

Introduction

· Societies that adopted complex ways of life were more organised than the early hunter-gatherer and Neolithic farming societies. Urban societies had social stratification and well-planned cities. They practised crafts, engaged in trade and exchange, adopted science and technology and formed political organisation (early form of state). Hence the term 'civilisation' is used to distinguish them from the early forms of societies. However, they should not be considered superior to other forms of societies, since each culture or civilisation had its own unique features.

Ancient Civilisations

· Civilisation is seen as an advanced, organised way of life. It instilled a way of life that could be considered as an adaptation to particular environmental and cultural contexts. When it became necessary for large numbers of people to live in close proximity, they brought in planning, organisation and specialisation. Settlements were planned and laid out, a polity emerged, society became organised and food production and craft production were regulated. As civilisations began to take shape, huge buildings were built, the art of writing developed and science and technology contributed to the betterment of society.

· The Egyptian, the Mesopotamian, the Chinese and the Indus were the important early civilisations. While these civilisations flourished in certain regions, people in other parts of the world lived as hunters-gatherers and pastoralists. The hunters-gatherers and pastoralists maintained their relationships with these civilisations through interactions. Their history is also equally important. During the time of these civilisations, South India witnessed theemergence of Neolithic agro-pastoral communities and Microlithic form of life by hunter-gatherers.

The Egyptian Civilisation

As one of the oldest civilisations, the Egyptian civilisation is known for its monumental architecture, agriculture, arts, sciences and crafts at a very early age.

Geography

· Egypt lies in the north-eastern corner of the African continent. It is bounded by the Red Sea on the east and Mediterranean Sea in the north. Egypt is irrigated by the River Nile,which originates in Lake Victoria in the south and flows into the Mediterranean Sea in the north. Deserts are seen on both sides of the Nile River. The Egyptian civilisation depended solely upon the flow of Nile River, and hence Egypt was called the Gift of Nile by the Greek historian Herodotus. The Nile also served as a means of transport. The Nile valley is very rich and fertile as the river

deposits fresh alluvium every year. This alluvium nurtured agriculture and helped to produce surplus of food grains, leading to the development of Egyptian civilisation. The dry regions on both the sides of the Niles, however remained deserts.

· Egypt became intimately connected with the Sangam Age Tamilagam by the sea route.

· The Hyksos were the rulers of the 15th dynasty of Egypt and they were probably from West Asia.

· Persians are the people from the region of Persia, the ancient Iran.

· Greek refers to the language and people of modern-day State of Greece in Europe.

· Rome refers to the ancient Roman Empire, which had as its capital the city of Rome in Italy.

Pharaohs, Society and Administration

· The Egyptian king was known as the Pharaoh. The people treated pharaoh as a divineform. Under the pharaoh, there was a hierarchy of officials including viziers, the governors of provinces, local mayors and tax collectors. The entire social system was supported by the work and production of artisans including stone cutters, masons, potters, carpenters, coppersmiths and goldsmiths, peasants and workers. Land belonged to the king and was assigned to the officials. Slavery was not common, but captives were used as slaves.

· Viziers were the high officials who administered territories under the direction of the Pharaohs.

· The Egyptians believed in life after death. Therefore, they preserved the dead body. The art of preserving the dead body is known as mummification. Pyramids and tombs were built to preserve the body of pharaohs.

· The famous Egyptian pharaoh Tutankhamen's (who ruled from 1332 to 1322 BC (BCE)) tomb with a rich variety of offerings is located near Luxor in Egypt. The mask of his mummy made of gold and decorated with precious stones is an important artefact of the Egyptian civilisation.

Agriculture and Trade

· The Egyptians cultivated wheat, barley, millets, vegetables, fruits, papyrus and cotton.

· Papyrus was used for making rope mats sandals and later for producing paper. They domesticated cattle, sheep, goat and pigs, and hunted wild animals. They had pets such as dogs, cats and monkeys. The Egyptians had trade relations with Lebanon, Crete, Phoenicia, Palestine and Syria. Gold, silver and ivory were imported, and they acquired the Lapis Lazuli, a precious stone of bluish colour, from Afghanistan.

Mummies of Egypt

The preserved dead body is called the mummy. The Egyptians had the tradition of preserving the dead bodies using Natron salt, a combination of sodium carbonate and sodium bicarbonate. The preservation process is called mummification. After 40 days, when the salt absorbed all the moisture, the body was filled with sawdust and wrapped with strips of linen cloth and covered with a fabric. The body was stored in a stone coffin called sarcophagus

Art and Architecture

· The Egyptians excelled in art and architecture. Their writing is also a form of art. Numerous sculptures, painting and carvings attest to the artistic skills of the Egyptians.

· The pyramids are massive monuments built as tombs of mourning to the Pharaohs. The great pyramids near Cairo are known as the Giza Pyramids.

· The Great Sphinx of Giza is a massive limestone image of a lion with a human head. It is dated to the time of Pharaoh Khafre. It is one of the largest sculptures of the world and measures seventy three metres in length and twenty metres in height.

Religion

· The Egyptians practiced polytheism. Amon, Re, Seth, Thoth, Horus and Anubis are some of the Gods of Egyptians. They worshipped many Gods, but the Sun God, Re, was the predominant one. Later on, the Sun God was called Amon.

Philosophy, Science and Literature

· The Egyptian civilisation excelled in science, literature, philosophy, astronomy, mathematics and the measurement system. Sundial, water clock and glass were developed by the Egyptians. They devised a solar calendar that consisted of twelve months of thirty days each, with five days added to the end of a year. This calendar was introduced as early as 4200 BC (BCE). Literary works included treatises on mathematics, astronomy, medicine, magic and religion. The Egyptians also distinguished themselves in painting, art, sculpture, pottery, music and weaving.

Writing System

· The Egyptians are well known for their writing system. Their form of writing is known as hieroglyphic. Hieroglyphic was used in the inscriptions on seals and other objects. The heretic, an another form of writing, was used for common purposes. This form of writing used a pictogram-based system. It was developed around 3000 BC (BCE) and many texts and books were written using this script. Now this inscription is on display in the British Museum, London.

Characteristics and Contributions of the Egyptian Civilisation

Ø The Egyptians developed a solar calendar system.

Ø The pyramids and their designs show their mathematical and surveying skills.

Ø Hieroglyphic writing system attests to their skills in handling symbols.

Ø Preservation of human body in the form of Mummies.

Ø They applied innovation in the use of science and technology.

The word 'paper' comes from 'Papyrus'. The Egyptians wrote on the leaves of a plant called papyrus, a kind of reed, which grew on the banks of Nile

The Mesopotamian Civilisations

· Mesopotamia refers to the region of Iraq and Kuwait in West Asia. Several kingdoms emerged around the city states of this region from the early third millennium BC (BCE). The Sumerian, Akkadian, Babylonian and Assyrian civilisations flourished in Mesopotamia.

Geography

· In the Greek language, meso means 'in between' and potamus means river. The Euphrates and Tigris flow here and drain into the Persian Gulf is since this area is in between two rivers it is known as Mesopotamia. The northern part of Mesopotamia is known as Assyria, and the southern part is called Babylonia.

The Sumerians

· The oldest civilisation in Mesopotamia belonged to the Sumerians. The Sumerians were the contemporaries of the people of Indus and the Egyptian civilisations. These civilisations hadtrade connections. The Sumerians settled in the Lower Tigris valley around 5,000 to 4,000 BC (BCE). They were believed to have originated from Central Asia. They founded many cities and Nippur was one of the important cities. They developed the cuneiform writing system. During the early

phase of the Sumerian civilisation, Kings acted as the chief priests. Their political domination came to an end by 2,450 BC (BCE).

The Akkadians

· The Akkadians dominated Sumeria briefly from 2450 to 2250 BC (BCE). The Sargon of Akkad was a famous ruler. The Sargon and his descendants (ca.2334–2218 BC (BCE)) ruled Mesopotamia for more than hundred years. In the cuneiform records of Akkadians, mention is made about the Indus civilisation. The documents of the Sargon of Akkad (2334–2279 BC (BCE)) refer to the ships from Meluhha, Magan and Dilmun in the quay of Akkad.

The city of Akkad later became the city of Babylon, a commercial and cultural centre of West Asia.

The Babylonians

· The Semitic people called Amorites from the Arabian desert moved into Mesopotamia. They were known as the Babylonians as they established a kingdom and made Babylon its capital. By the time of the king Hammurabi, they extended their domination to the western part of Mesopotamia. The powerful states of Ur (2112 to 2004 BC (BCE)) and Babylon (1792 to 1712 BC (BCE)) controlled this region. The hero Gilgamesh referred to in the first ever epic on the earth may have been a king of Sumeria. Hammurabi, the sixth king of Babylon belonging to the first Amorite dynasty (1792–1750 BC (BCE)), attained fame as a great law-maker.

The Assyrians

· The Assyrian Empire was politically active in Mesopotamia around 1000 BC (BCE). The Assyrian kings were the priests of Ashur, the chief deity of Assyria. The Assyrian government was controlled by the emperor and provincial governors were appointed by the emperor to administer provinces. Assur was the capital city of Assyria. Ashurbanipal was a popular ruler of the late or neo-Assyrian empire (ca. 668 to 627 BC (BCE)). He maintained a famous library of cuneiform records. The Assyrians worshipped the deity of Lamassu for protection.

Society, State and Administration

· The Sumerian civilisation had many city states. A typical Sumerian city was surrounded by cultivable lands. The fortified Sumerian cities had the temples called Ziggurats at its centre. The temple was controlled by the priests. Priests, scribes and nobles were part of the government. The rulers and priests occupied the top of the social hierarchy. The ruler performed the role of the chief priest. The scribes, merchants and artisans were placed next in the hierarchy. The scribes maintained the account of the taxes and the priests collected the taxes. The temples acted as storehouses of the taxed commodities. Assemblies were created for the

administration of the state. Cultivable lands were owned by the kings and the higher classes of people in the hierarchy. The peasants who remained to the temples in the earlier phase of Mesopotamian civilisation, became free from that association in the later period. Not all people were allowed to live in the cities.

The Assyrian Empire was the first military State in history. They emerged militarily powerful because they were the earliest to use iron technology effectively

Food and Agriculture

· Agriculture was the main occupation of the Mesopotamians. They had developed irrigation systems for ensuring the availability of water for agriculture and cultivated wheat, barley, onions, turnips, grapes, apples and dates. They domesticated cattle, sheep and goats. Fish was part of their diet.

Trade and Exchange

· Trade was an important economic activity of the Mesopotamian society. Traders assisted in the exchange of goods procured from the potters and artisans. They traded with Syria and Asia Minor in the West, and in Iran and the Indus Valley civilisation in the east. They travelled in ships across the seas for trade. Their temples acted as banks and lent credit on their own account. The Mesopotamian documents have references to loan and repayment, with or without interest. Perhaps this is the first written evidence of charging an interest on borrowed money.

Cities and Town Planning

· The Mesopotamian cities featured mud or baked brick walls with gates. Some people lived in reed huts outside the cities. The Ziggurats were at the city centre on a platform and appeared like steep pyramids, with staircases leading to the top. Around this temple were complexes of ceremonial courtyards, shrines, burial chambers for the priests and priestesses, ceremonial banquet halls, along with workshops, granaries, storehouses and administrative buildings.

Religion

· The Sumerian religion was polytheistic. They worshipped several Gods and Goddesses. The Sumerians prayed to Enlil, the God of sky and wind. The city of Nippur was centre of Enlil's worship. Ninlil was the Sumerian Goddess of grain. The Babylonians worshipped Marduk, and Ashur was the supreme God of the Assyrians. Ishtar was Goddess of love and fertility, Tiamat the God of the sea and chaos, and Sin, the moon God. The kings were seen as representatives of the Gods on earth. The Mesopotamians developed a rich collection of myths and legends. The most famous of these is the epic of Gilgamesh, which is written in the cuneiform

text. It contains a legend of the flood and has similarities with the account of Noah's Ark mentioned in the Bible and other myths in the Hindu puranas.

The Hammurabi's Law Code

· The Hammurabi Code is an important legal document that specifies the laws related to various crimes. It has 282 provisions specifying cases related to family rights, trade, slavery, taxes and wages. It is carved on a stone, which portrays Hammurabi as receiving the code from the Sun God Shamash. It was a compilation of old laws based on retributive principles. 'An eye for an eye' and ' a tooth for a tooth' form of justice is used in the Hammurabi Code.

Cuneiform: The Sumerian Writing System

· Cuneiform is the Sumerian writing system. The shape of the letter is in the form of wedge and hence it is called cuneiform. Evolving around 3000 BC (BCE), it is one of the earliest scripts of the world. They used this script for commercial transactions and writing letters and stories. The clay tablets contain loads of information on the Sumerian civilisation.

Art

· The Mesopotamian art included sculptures in stone and clay. A few paintings and sculptures from the Mesopotamian times have survived today. Mesopotamian sculptures portray animals, such as goats, rams, bulls and lions. Some mythological figures like lions and bulls with human head have also been found in their art. Massive sculptures were created at the time of the Assyrian and the Babylonian empires.

Development of Script
Development of script is an important milestone in human history. Writing system began to emerge in Sumeria in the later part of fourth millennium BC (BCE). Hieroglyphic, the Egyptian system of writing, developed in early third millennium BC (BCE). The Harappans also had a system of writing around the same time, but it has not yet been deciphered. The Chinese civilisation too developed a writing system from a very early period.

Science

· The Mesopotamians excelled in mathematics, astronomy and medicine. They developed the concepts of multiplication, division and cubic equation. The numerical system based on 60 was conceived by them. They were the ones to formulate the 60-minute hour, the 24-hour day and the 360° circle. The Sumerian calendar had seven days in a week. Their numerical system had place values. They created the water clock and the lunar calendar based on the movement of the moon.

They developed methods for measuring areas and solids. They also developed advanced weightand measurement systems.

· They introduced the twelve month calendar system based on lunar months. Their ideas influenced Greek astronomy. They had developed a medicinal system as well. A text called the Diagnostic Handbook, dated to the 11th century BC (BCE) Babylon, lists symptoms and prognoses. This indicates their scientific understanding of herbs and minerals.

Contributions of the Mesopotamian Civilisation

Ø The invention of the potter's wheel is credited to the Sumerians

Ø They developed the calendar system of 360 days and divided a circle into 360 units

Ø The cuneiform system of writing was their contribution

Ø The Hammurabi's law code was another legacy of the Mesopotamians.

The Chinese Civilisation

· China has two major rivers. One is known as Huang He (Yellow River) and the other is called Yangtze River. The Yellow River is known as the Sorrow of China, since it changed its course and caused frequent floods.

· Evidence for the prehistoric Peking man (700,000 BP and 200,000 BP) and Yuanmou Man exists in China. Neolithic communities lived in China between 4,500 and 3,750 BC (BCE). The Henan province in the Yellow and Yangtze river valley contain evidence for Neolithic villages. China had many city states and gradually these states became part of an empire.

Polity and Emperors

· Shi Huangdi (Qin Shi Huang, which means the first emperor) founded the Qin (Chin) dynasty. The emperor had the title 'son of heaven'. He is considered to be the first emperor of China. The period between 221 and 206 BC (BCE) is known as the imperial era in China. He conquered other principalities in 221 BC (BCE) and remained the emperor till 212 BC (BCE). He defeated the feudal lords and established a strong empire. He is credited with unifying China. Shi Huangdi destroyed the walled fortifications of different States and constructed the Great Wall of China to protect the empire from the invading nomadic people. He also built roads to integrate the empire.

The Han Empire (206–220 AD (CE))

· During this period, a written history of this empire was made available in China. The greatest of the Han emperors, Wu Ti (Han Wu the Great, 141 to 87 BC (BCE)), expanded the empire and built many public amenities, including irrigation tanks. He sent Zhang Qian as emissary to the West in 138 BC (BCE) and thereby paved the way for the opening of the Silk Road in 130 BC (BCE) to encourage trade activities.

· Because of the Silk Road and the resultant trade connections, China benefitted immensely during the rule of Emperor Zhang (75–88 AD (CE)). Chinese silk was much sought after by the Romans during the time of the Roman emperor Marcus Aurelius in 166 AD (CE). Some of the Chinese silk might have reached Rome through the ports of Tamilagam.

The Terracotta Army
The Terracotta Army refers to the large collection of terracotta warrior images found in China. They depict the armies of the king Qin Shi Huang, the first emperor of China. They were buried with the king in 210–209 BC (BCE). They are found at the northern foot of the Lishan Mountain, thirty five kilometres northeast of Xi'an, Shaanxi Province, as part of the mausoleum of the king.

Philosophy and Literature

· Chinese poets and philosophers such as Lao Tze, Confucius, Mencius, Mo Ti (Mot Zu) and Tao Chien (365-427 AD (CE)) contributed to the development of Chinese civilisation. Sun-Tzu, a military strategist, wrote the work called Art of War. The Spring and Autumn Annals is the official chronicle of the state at the time. The Yellow Emperor's Canon of Medicine is considered China's earliest written book on medicine. It was codified during the time of Han Dynasty.

· Lao Tze (c. 604– 521 BC (BCE)) was the master archive keeper of Chou state. He was the founder of Taoism. He argued that desire is the root cause of all evils

· Confucius (551–497 BC (BCE)) was famous among the Chinese philosophers. He was a political reformer. His name means Kung, the master. He insisted on cultivation of one's own personal life. He said, "If personal life is cultivated, family life is regulated; and once family life is regulated, national life is regulated."

· Mencius (372–289 BC (BCE)) was another well-known Chinese philosopher. He travelled throughout China and offered his counsel to the rulers.

Chinese Script

· Chinese developed a writing system from an early time. Initially it was a pictographic system and later it was converted into a symbol form.

Contribution of the Chinese Civilisation

- Ø Writing system was improved
- Ø Invention of paper
- Ø Opening of the Silk Road
- Ø Invention of gun powder.

Indus Civilisation

· The Indus civilisation, also known as the Harappan civilisation, covers an area of over 1.5 million square kilometres in India and Pakistan. Sutkagen-Dor in the west on the Pakistan– Iran border Shortugai (Afghanistan) in the north Alamgirpur (Uttar Pradesh in India) in the east and Daimabad (Maharashtra in India) in the south are the boundaries with in which the Harappan culture has been found. Its main concentration is in the regions of Gujarat, Pakistan, Rajasthan and Haryana.

Planned Towns

· Harappa (Punjab, Pakistan), Mohenjo-Daro (Sindh, Pakistan), Dholavira (Gujarat, India), Kalibangan (Rajasthan, India), Lothal (Gujarat, India), Banawali (Rajasthan, India.,) Rakhigarhi (Haryana, India) and Surkotada (Gujarat, India) are the major cities of the Indus civilisation. Fortification, well-planned streets and lanes and drainages can be observed in the Harappan towns. The Harappans used baked and unbaked bricks and stones for construction. A civic authority perhaps controlled the planning of the towns. A few of the houses had more than one floor. The tank called the Great Bath at Mohenjo-Daro was an important structure, well paved with several adjacent rooms. Some unearthed structures have been identified as the granary. We do not knowabout the nature of the state or political organisation of the Harappans. But they must have had a political organisation at the level of an early form of state. A male image from Mohenjo-Daro has been identified as 'priest king', but we do not know about the accuracy of this interpretation.

The Indus Valley civilisation is also known as the Harappancivilisation, since Harappa was the first site to be discovered. This civilisation is known as Harappancivilisation rather than Indus Valley civilisation, since it extended beyond the Indus river valley.

The structure identified as granary should be considered archaeologists' interpretation.

Agriculture and Animal Domestication

· The Harappans practiced agriculture. They cultivated wheat, barley and various types of millets. They adopted a double cropping system. Pastoralism was also known to them. They reared cattle, sheep and goats. They had knowledge of various animals including elephants but did not use horses. The Harappan cattle are called Zebu, and it is a large breed, often represented in their seals.

Pottery

· The Harappans used painted pottery. Their potteries have a deep red slip and black paintings. The pottery has shapes 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, depict pipal tree leaves, fish-scale designs, intersecting circles, zigzag lines, horizontal bands, and geometrical motifs, and floral and faunal patterns.

Metal Tools and Weapons

· The Harappans used chert blades, copper objects and bone and ivory tools. They did not possess knowledge about iron. The tools and equipments such as points, chisels, needles, fishhooks, razors, weighing pans, mirror and antimony rods were made of bronze. The chisels made out of Rohrichert were used by the Harappans. Their weapons included arrows, spears, a chisel-bladed tool and axe. The bronze image of dancing girl from Mohenjo-Daro is suggestive of the use of lost-wax process.

Rohrichert refers to the chert raw material collected from Rohri in Pakistan. It was used by the Harappans for making blades.TheHarappans used both stone and bronze tools.

Textiles and Ornaments

The Harappans used metal and stone ornaments. They had knowledge of cotton and silk textiles. They made carnelian, copper and gold ornaments. Faience, stoneware and shell bangles were also used. Some of them had etched designs, and the Harappans exported them to the Mesopotamia.

Trade and Exchange

· The Harappans had close trade links with the Mesopotamians. Harappan seals have been found in the West Asian sites namely Oman, Bahrain, Iraq and Iran. The cuneiform inscriptions mention the trade contacts between Mesopotamia and the Harappans. The mention of ‘Meluhha’ in the cuneiform inscriptions is considered to refer to the Indus region.

Weights and Measures

· The Harappans developed a system of proper weights and measures. Since they engaged in commercial transactions, they needed standard measures. The cubical chert weights are found at the Harappan sites. The copper plates for weighing balances have also been found.The weights point to their knowledge of the binary system. The ratio of weighing is doubled as 1:2:4:8:16:32.

Seals, Sealings and Scripts

· The seals from various media such as steatite, copper, terracotta and ivory are found in the Harappan sites. They were probably used in the trade activities. The Harappan script is not yet deciphered. About5,000 texts have been documented from the Harappan sites. Some scholars are of the view that the script is in Dravidian language.

Arts and Amusement

· The terracotta figurines, paintings on the pottery and the bronze images from the Harappan sites suggest the artistic skills of the Harappans. 'Priest king' made of steatite and dancing girl made of bronze (both from Mohenjo-Daro) as well as stone sculptures from Harappa, Mohenjo-Daro and Dholavira are the important objects of art. Toy carts, rattles, wheels, tops, marbles and hop scotches made in terracotta suggest the amusement of the Harappan people.

Religion

· The Indus people had a close relationship with nature. They worshipped pipal trees. Some of the terracotta figures resemble the mother Goddess. Fire altars have been identified at Kalibangan. The Indus people buried the dead. Burials were done elaborately and evidence for cremation has also been found.

Original Inhabitants and their Culture

· The authors of the Harappan civilisation are not known, since the script has not been deciphered. One school of thought argues that they spoke the Dravidian language. The archaeological evidence shows movement of the Harappans to the east and south after the decline of the Indus civilisation. It is probable that some of the Harappan people moved into different parts of India. Only the decipherment of the script can give a definite answer.

· Indus civilisation had more than one group of people. Several groups including farmers, pastoralists and hunter-gatherers lived in the Indus region. The Indus region had villages and large towns. The population was mixed.

· The period of the civilisation has been divided into Early Harappan, starting around 3300 BC (BCE) and continuing to 2600 BC (BCE) and mature Harappan, are the last phase civilisation from 2600 to 1900 BC (BCE). The later Harappan existed upto 1700 BC (BCE).

Decline of Indus Culture

· The Indus civilisation and its urban features started declining from about 1900 BC (BCE). Changes in climate, decline of the trade with Mesopotamia and drying up or flooding of the river Indus, foreign invasion were some of the reasons attributed to the collapse of this civilisation and for the migration of people in the southern and eastern directions. It did not completely disappear. It continued as rural culture.

Indus Script

Cracking The Indus Script

Harappans knew the art of writing. The script is found on seals, in moulded terracotta and on pottery. It has not been deciphered till now. Because the Indus texts are very short, the average length of the inscription is less than five signs. It has no bilingual text (like a Rosetta stone written in Egyptian and Greek).

It was written generally from right to left.

- Based on computer analysis, the Russian scholar Yuri Knorozov suggested that the Indus inscriptions have a Dravidian-like word order.
- Scholar and researcher IravathamMahadevan, who has done extensive research on Indus civilisation, says, "We may hopefully find that the proto Dravidian roots of Harappa language and South Indian Dravidian languages are similar."
- According to Mahadevan, a stone Celt discovered in Mayiladuthurai (Tamil Nadu) has same marking as that of the symbol of the Indus script.
- In May 2007, the TamilNadu Archaeology Department found pots with arrow head symbols at Melaperumpallam near Poompuhar, which resembled the seals in Mohenjo-Daro.

According to Parpola, the sign of the Indus script is likely to represent Dravidian mono-syllabic roots.

11th Book

Unit - 1

Early India from the Beginnings to the Indus civilization

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.

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 includethe 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 migratedto 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.

- Ø The earliest age in history is called Old Stone Age or Palaeolithic. This period is divided into
- Ø Lower Palaeolithic culture
- Ø Middle Palaeolithic culture
- Ø 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 agein 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

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

· 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 LateAcheulian 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 isattributed to its absence. Uncongenial conditions and lack of raw materials might have prevented the occupation of these areas. Perhaps there was no necessityfor 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.

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.

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 Isampurin 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 ofhuman ancestors in India.

· Animal fossils are useful to understand the palaeo-environmental context in whichpeople lived. In the Narmada valley, animal fossils of Elephasnamadicus (giant tusked pre-historic elephant), Stegodonganesa (a giant pre-historic elephant), Bosnamadicus (wild cattle) and Equusnamadicus (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.

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

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.

Middle Palaeolithic Culture

· After about 4,00,000 years BP (Before Present), changes took place in the lithictechnology and the species of human ancestors diverged. The species of Homoerectus 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 MainCharacteristics

- Ø The Middle Palaeolithic people occupied open-air, cave and rock shelter sites. They were hunter-gatherers. The main features of the Indian Middle Palaeolithic period include the following:
- Ø The tools became smaller.The decrease in the use of hand axes in relation to other tools.
- Ø Use of core preparation techniques in stone tool production.
- Ø 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.

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.

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, BaghorI 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 FaHien Cave in Sri Lanka.

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

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 thecoasts 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, ChopaniMando, SaraiNaharRai, Mahadaha and Damdama (all in Uttar Pradesh), Sankanakallu and Kibbanahalli (Karnataka). Rock shelter sites are found in Lekhakia, BaghaiKhor, Adamgarh and Bhimbetka.

· Coastal sites are seen at Mumbai, teri sites of Thoothukudy in Tamil Nadu and Vishakapatnam, which have microlithic evidence.

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

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 isassigned 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 beginningof 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 animalsand 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 ChopaniMando and Damdama in Uttar Pradesh and Bagor and Tilwara in Rajasthan.

Burials

· The Mesolithic people buried the dead, which suggests their beliefs and humanerelationships. Human skeletons have been found in Mahadaha, Damdama and SaraiNaharRai 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 thelater period, even after the development of Neolithic, Iron Age and historicalperiods. Perhaps they became part of the marginalised communities, when thepeople who lived in the cities acquired more wealth. Some of the people wholive in the forests even today in some remote areas and also in the Andamanregion could be

considered as those people who prefer to live by hunting andgathering. Many such groups lived in the 19th and 20th century, as recorded inthe Edgar Thurston's Castes and Tribes of Southern India. Describing them asprimitive is incorrect. They should be considered as people who preferred tolive 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

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

Early Neolithic Cultures and the Beginning of Agriculture

· 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 andMesopotamia, the Indus region, the Gangesvalley 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 productionand 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, RanaGhundai, 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

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.

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, pastoralgroups. They built their houses with mud and buried the dead. They used ornamentsof 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. Postholesused 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, mace-heads, 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 aceramicand 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 theexcavations. 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 objectsin 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 ChopaniMunda. The site of Lehuradeva has produced early evidence of rice cultivation dated to c. 6500 BCE.

· These sites are characterised bycord-marked pottery. Koldiwa, Chirand, Senuwar and Mahagara are important Neolithic sites in this region. These sites also have evidence of pottery and plantand 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. Birbhanpurand 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 andshouldered 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.

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· 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 AndhraPradesh 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. DaojaliHading 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

HarappanCivilisation. 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:

Early Harappan 3000–2600 BCE
Mature Harappan 2600–1900 BCE
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 in1826, 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 realized 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 inIndia. 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, RakhiGarhi 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 agricultureand 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.

Subsistence and Economic Production

· Agriculture was an important source of subsistence for the Harappans. TheHarappans 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.

Archaeobotanists study ancient agriculture, and human and environmental relationships.

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 specialized in the production of certain craft materials. The following table presents the major centres of craft production.

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

Pottery

· 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 Harappansknew 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.

Rohrichert
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

Textiles and Ornaments

· The Harappans wore clothes and used metal and stone ornaments. They hadknowledge 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 Mohenjo- Daro 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 involvedin commercial transactions, they needed standard measures. Cubical chert weightshave 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 arefrequently 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. "Priestking" of steatite, dancing girl of copper (both from Mohenjo- Daro), and stonesculptures 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 ofthe 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 city-state 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 ofIndia, several cultures were developing in different parts of India. In the southern part of the subcontinent, Kerala and Sri Lanka were given to hunting 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 inclimate, decline of the trade with the Mesopotamia, and the drying of the riverand 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.

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.