



GOVERNMENT OF TAMILNADU

STANDARD NINE

TERM - I
VOLUME - 4

SOCIAL SCIENCE

Untouchability is Inhuman and a Crime

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Department Of School Education

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E - book



Assessment



DIGI links

HOW TO USE THE BOOK**Learning Objectives**

The scope of the lesson is presented

Introduction

The subject to be discussed in the lesson is Introduced

**QR Code**

Leads the students to animated audio, video aids for getting experiential learning

Do You Know?

Provides additional information related to the subject in boxes to stir up the curiosity of students

**Infographs**

Visual representations intended to make the complex simple and make the students grasp difficult concepts easily

Fun with History

Activities for 'learning by doing' individually or in groups

Summary

Describes the main points briefly in bullets for recapitulation

Exercise

For self-study and self evaluation

**Glossary**

Key words and technical terms explained at the end of the lesson for clarity

**Reference**

List of books and net sources for further reading

**ICT Corner**

Using technology for learning activities, which enables the students to access digital sources relevant to their lessons.



UNIT

1

Evolution of Humans and Society - Prehistoric Period



Learning Objectives

- To trace the world's early history.
- To understand human evolution.
- To know prehistoric Tamilagam up to the Iron Age.



Introduction

We live in the age of Information Technology. The mobile phones have literally put the world on our finger tips. The all-encompassing knowledge that we possess now, which has helped in the development of powerful technology, did not emerge all of a sudden. The foundation for our modern life was facilitated by the development of the process of cognition among the human ancestors in the prehistoric age.

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.

Artefact is an object or tool made or modified by humans.

Cognition refers to the act of mind in which knowledge and understanding are acquired through thoughts, experiences and senses. Cognition is related to development of human thought.

1.1

Origin of the Earth and the Geological Ages

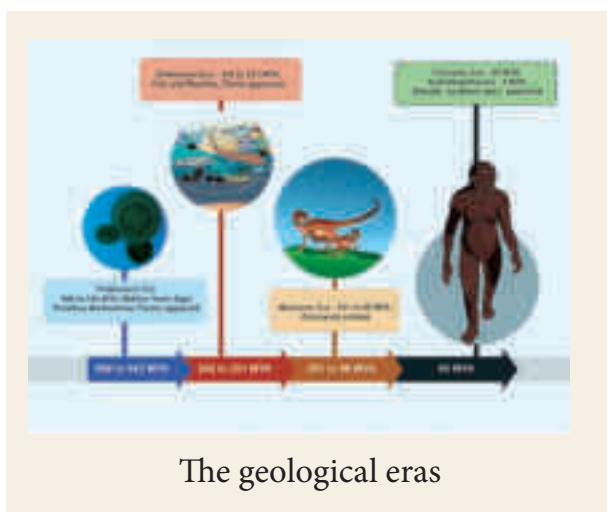
The history of humans is closely related to the history of the earth. The earth contains geological, archaeological and biological records of historical times in its upper layers. They are important for reconstructing the history of the earth and various living organisms. The fossil bones of the human 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 earth's history is divided into eras, periods and epochs by the geologists



The earliest trace of life in the form of microorganisms emerged 3.5 billion years ago. The primitive multi-cellular form of life first appeared in the Proterozoic era, about 600 to 542 million years ago. In the Palaeozoic era (542 to 251 million years ago), fish and reptiles along with various plants appeared. Dinosaurs existed in the Mesozoic Era (251 to 66 million years ago). Australopithecines (literally 'southern ape') appeared in the Cenozoic era, which commenced about 66 million years ago.

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

1 billion = 100 crore

1 million = 10 lakh

1.2 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.

BCE – Before Common Era

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 BCE) is considered the Father of History, because the history he wrote was humanistic and rationalistic. In the Middle Ages, people were preoccupied with religion; but the real scientific enquiries became stronger only around the 15th and 16th centuries CE, with the Renaissance movement in Europe playing an influential role in rational thinking. Scientific enquiry was undertaken and scientific foundations for geology, biology, anthropology and archaeology were laid. Numerous ideas were articulated by various learned men in these fields during this period. Through their enquiry and observation, scholars believed that the evidence for the origin of the earth



and the organisms lay in the upper layers of the earth.

The rise of scientific enquiry into the origin of humans was possible because of

- the interest in collection of archaeological remains and the opening of museums after the Renaissance Movement;
- the development of ideas of stratigraphy and geology;
- Darwin's theory of biological evolution;
- the discovery of human and animal fossils, stone tools, and artefacts of early civilizations; and
- 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 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 CE) at present. Ashmolean Museum at Oxford University is the oldest university museum in the world. It was established in 1677 CE.

Herbert Spencer's (1820–1903 CE) and Charles Darwin's (1809–1882 CE) theory on biological evolution, 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 processes 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.

The idea of the Three Age System proposed by C.J. Thomsen became the basis for understanding early human history. He classified the artefacts in the Danish National Museum, Copenhagen, into Stone Age, Bronze Age and Iron Age.

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 and 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.



1.3

Prehistory: From Australopithecus through Homo erectus to Homo sapiens

The introduction of writing system is a hallmark of the human civilisation. The period before the introduction of writing is called **prehistory**. Prehistoric societies

are treated as pre-literate. But pre-literate should not be taken to mean primitive. The prehistoric people developed language, made beautiful paintings and artefacts, and they were highly skilful.

Who are we? What is the name of our species?

We are *Homo sapiens sapiens*

Human Evolution and Migration

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 to 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.

DO YOU KNOW?

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

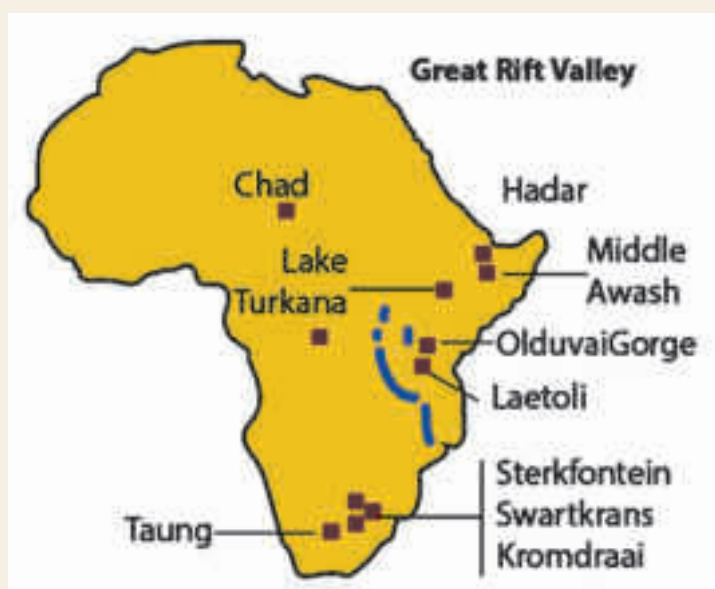
The Great Rift Valley in Africa has many sites that have evidence for the prehistoric period.

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*



Prehistoric sites of human ancestors in Africa.



Fossils of Lucy (Australopithecus)



(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.



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

Prehistoric Cultures

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 Palaeolithic and Mesolithic cultures.

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.



Stone tools from Kenya about 2.3 million year old.



An Olduvai chopper.

Lower Palaeolithic Culture

The Lower Palaeolithic 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



Hand axe - London Museum.



Flint biface from Saint-Acheul, France.

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 Palaeolithic 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 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 Palaeolithic Culture

After about 398000 years 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.



A cleaver.



Omo Kibish point.

Middle Palaeolithic flakes and tools
India.

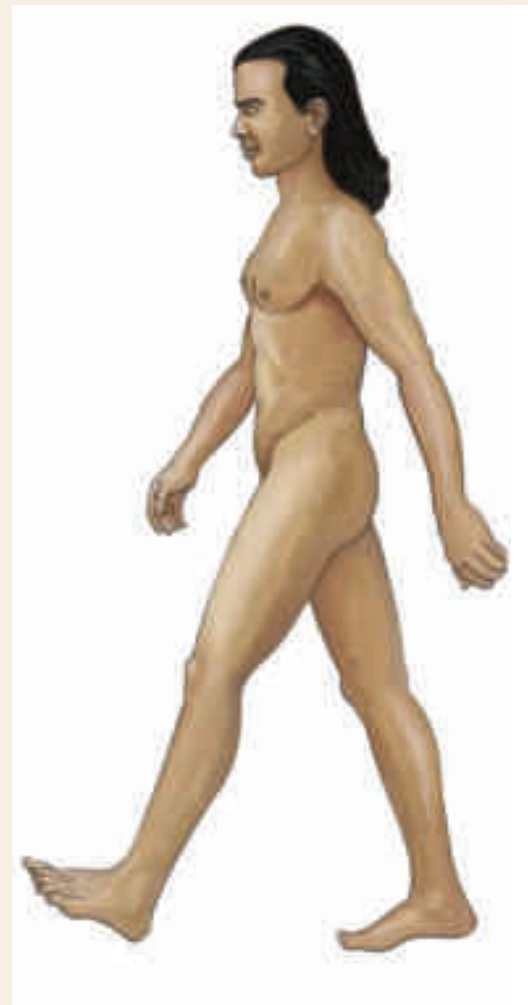
Lithic Technology: 'Lith' means stone. The methods and techniques involved in the production of stone tools are called lithic technology.

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 Palaeolithic Culture appeared between 3,85,000 and 1,98,000 years 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 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.



Neanderthal Man. Neanderthals did not have needles, sewn clothes and warm houses essential for survival in colder climates.



Upper Palaeolithic Culture

The cultural phase that succeeded the Middle Palaeolithic is called the Upper Palaeolithic 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 on stone and bone called **Venus** Statues were produced in Europe and in some parts of Asia.

The Upper Palaeolithic Culture appeared about 60,000 years ago. It continued till about the beginning of the Holocene about 12,000 years ago, when the Ice Age ended. Some of the rock paintings of India are also dated to this period.



Lascaux – Rock painting from west France – 17000 years old

Ice Age – the period before 8,000 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 Palaeolithic 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.

The dating of the Mesolithic Culture varies across different parts of the world. It was pre-agricultural in certain areas. In northwest Europe, the people of this culture appeared between 8,000 and 3,000 years ago. In India, Mesolithic



Microlithic tools



Rock paintings from Bhimbetka

Culture emerged around 10,000 BCE and in Tamil Nadu it continued up to 1000 BCE, till the beginning of the Iron Age. Some of the rock paintings of India date to the Mesolithic Period.

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 BCE to

**DO
YOU
KNOW?**

Wheat, barley and peas were domesticated around 10,000 years ago.

Fruit and nut trees were domesticated around 4,000 BCE. They comprised olives, figs, dates, pomegranates and grapes.

5000 BCE, agriculture had come to be practised in these regions.

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.