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## UNIT 10 CULTURAL CHRONOLOGY\*

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### Learning Objectives

Once you have studied this unit, you should be able to:

- List prehistoric cultures belonging to different periods;
- State the main characteristics of each prehistoric cultures; and
- Discuss how the gradual change in cultures took place in the Old World.

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## 10.0 INTRODUCTION

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In this unit we will be discussing the different prehistoric cultures as they evolved. Let us begin by understanding the term prehistory. The term refers to that period when human beings first emerged from their animal ancestry and became erect walking bipedalists until the time when writing began. Therefore, it refers to the vast time period before written records were available or before the recorded history or the invention of writing systems.

The term “prehistory” was first coined by archaeologist Paul Tournal when he used the term *anté-historique* in describing the finds he made in the caves of southern France. Thus, the term came into use in France in the 1830s to describe the time before writing, and the word “prehistoric” was later introduced into English by archaeologist Daniel

Wilson in 1851. Later John Lubbock freely used the term in his book *Prehistoric Times* in 1865.

But what is the relevance of studying prehistoric human experiences chronologically? We do this in order to understand the cultural processes, human behaviours, and ultimately discuss human evolution. Human history encompasses the whole story of biological, cultural and behavioural development of humans from the time they ceased to be non-human primates and made the first move in the direction of humanity. The present man is the product of evolutionary processes and similarly culture is the outcome of the cultural processes operating through time in constant interaction with environmental and biological factors.

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## 10.1 PERIODISING PREHISTORIC CULTURES

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In dividing human prehistory, prehistorians typically use the Three-Age System. This system is the periodisation of human prehistory into three successive time periods, named for their respective predominant tool-making technologies and the type of raw materials used for making the tools. These are: the Stone Age, Bronze Age, and Iron Age.

Since the very beginning, measurement of time and placing prehistoric cultures in chronological sequences has been one of the main pre-occupations of archaeologists. How does one classify the past and measure the age of great events in prehistory? Time dimension becomes important in the description and interpretation of prehistory.

Since the very beginning there was free speculation about what happened in the past, and classification of the past was a major problem. In the 16th century, some antiquarians were writing about prehistoric ages of stone, bronze and iron. This concept was refined by Scandinavian archaeologists in the 19th century. Prof. R. Nyerup and others set up the Danish National Museum that housed a confusing collection of artifacts from bogs, burial chambers and shell middens. The first curator of the museum C. J. Thomsen was appointed in 1816. Thomsen put the museum collections in order by classifying them into three groups, representing ages of stone, bronze and iron, using finds in previously undisturbed graves as a basis of his classification. He claimed that his Three Ages were chronologically ranked.

Thomsen's classification was taken up by J. J. A. Worsaae, who proved the system's basic stratigraphic validity. By studying archaeological finds from all over the world, Worsaae demonstrated the widespread validity of the method that became known as the Three Age system. This system was a technological subdivision of the prehistoric past based on types of raw materials used for making tools..

In 1863, Lubbock made an effort to designate the Stone Age into two distinct periods, viz., the Palaeolithic and the Neolithic. The definitions of the two periods were mainly based on typo-technological features of the stone tools. Nearly seven years after Lubbock's attempt it was felt that the Neolithic, though a Stone Age culture, occupied a comparatively recent past in man's cultural history. As such Lartet in 1870 tried to divide the larger part of the Stone Age into three more periods, viz., Lower, Middle and Upper Palaeolithic. These divisions were mainly based on the change in fauna observed with different Palaeolithic industries. However, de Mortillet in 1930 advocated that traditions within the Palaeolithic Age are more meaningful and hence the terms should refer to traditions alone.

**Check Your Progress**

1) On what basis has human prehistory been periodised into three successive time periods?

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## 10.2 THE STONE AGE

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As the word suggests, Stone Age would refer to a period during which stone was widely used to make artifacts for different needs of early humans. This period lasted roughly 3.4 million years, and ended between 4500 BCE and 2000 BCE with the advent of metalworking. Stone Age artifacts include tools used by humans and by their predecessors in the genus *Homo*, as well as the earlier hominids *Australopithecus* and *Paranthropus*. Besides stone, bone tools were also used during this period as well, but are rarely preserved in the archaeological record.

The Stone Age can be divided into the Palaeolithic, Mesolithic and the Neolithic based on chronology and techno-technology and other general features which are discussed below.

### 10.2.1 Palaeolithic

The word “Palaeolithic” comes from the Greek words *palaeos* meaning old and *lithos* meaning stone; therefore it refers to the Old Stone Age. This is a period that placed itself in the Pleistocene geological epoch. The Palaeolithic marks the beginning of the use of stone tools.

The early part of the Palaeolithic is called the Lower Palaeolithic, which predates *Homo sapiens*, beginning with *Homo habilis* (and related species), the *Homo erectus* and with the earliest stone tools, dated to around 2.5 million years ago. Early *Homo sapiens* originated some 200,000 years ago, ushering in the Middle Palaeolithic. In the same period, anatomic changes took place indicating modern language capacity. The systematic burial of the dead with rituals, and the use of increasingly sophisticated tools are highlights of the middle Palaeolithic. Modern man, *Homo sapiens sapiens*, emerged around 50,000 years ago and developed new tool making technologies in the form of blade and burin. Throughout the Palaeolithic period, humans generally lived as nomadic hunter-gatherers. During this period, man was a food gatherer depending on the collection of wild fruits, tubers and nuts, hunting of wild animals and birds, and fishing in lakes, rivers and seas. So humans did not produce anything and were completely dependent on natural resources.

The Palaeolithic can be divided into three main cultural periods which are chronologically ranked and thus called lower, middle and upper.

#### 10.2.1.1 Lower Palaeolithic

The lower Palaeolithic covers approximately 3/4<sup>th</sup> of the Pleistocene epoch. The lower Palaeolithic began in Africa, and toward the end of its African phase it spread to Eurasia, where it remained long after it ended in Africa.

a) **Oldowan Culture:** The earliest stone tools were found in East Africa, however

the authors are unknown. They belonged to an industry referred to as Oldowan, named after the type site of Olduvai Gorge in Tanzania; however, sites in Ethiopia were later found to be older. The tools were formed by breaking pieces off a pebble with a hammer stone to obtain one or more sharp edges. The original stone is called a *core*, and the resultant pieces are called *flakes*. The resultant tools are pebble tools like choppers, large scrapers etc.

These tools in Africa were manufactured and used predominantly by *Homo habilis*. Besides, Olduvai gorge (Tanzania), Oldowan tools have been found in Afar and Omo river basin in Ethiopia, East Turkana, Kenya, Sterkfontein in South Africa; parts of Eurasia such as Georgia, Russia, Spain as well as in East Asia and the Indian subcontinent.

- b) **Acheulean Culture:** In Africa, Europe and some parts of Asia, *Homo erectus* is associated with a distinctive tool kit that includes a variety of choppers, hand axes, cleavers, scrapers and some flake tools. These assemblages of handaxes are grouped under the Acheulean culture. The culture is named after the site St. Acheul in France, where this kind of handaxes were found for the first time.. The Acheulean handaxe was an artifact with converging lateral edges that met at a point. The maker had to envisage the shape of the artifact which they had to produce from a lump of stone and then fashion it, not with opportunistic blows but with carefully directed hammer blows. Makers were *Homo erectus*.

Tool types found in Acheulean assemblages include various types of handaxes, namely, pointed, cordate, ovate, peariform and lanceolate hand-axes. Cleavers, retouched flakes, scrapers, and chopping tools are also included in the assemblage.. Materials used were locally available stone types. Flint is most often associated with the tools but its use is concentrated in Western Europe. In Africa sedimentary and igneous rocks such as mudstone and altered basalt and quartzite were most widely used. In India, quartzite was most frequently used, though quartz is also found to have been used as rawmaterial.

- c) **Clactonian Culture:** The Clactonian is the name of an industry that dates to the early part of the interglacial period known as the Mindel-Riss (c. 400,000 years ago). Clactonian tools were made by *Homo erectus* rather than by modern humans. The term is sometimes applied to early, crude stone flake tools from other regions that were made using similar methods. The term Clactonian in other continents refer more to the flake technique than to a culture.

The culture is named after 400,000 year old finds made by H. Warren in an old channel at Clacton-on-Sea in the English county of Essex in 1911. The Clactonian industry involved striking thick, irregular flakes from a core of flint, which was then employed as a chopper. The flakes would have been used as crude knives or scrapers.

### 10.2.1.2 Middle Palaeolithic

This is the period in which the Neanderthals (*Homo sapiens neanderthalensis*) lived in Europe and the Near East (c. 300,000–28,000 years ago). Their technology is mainly based on what came to be known as the Mousterian, named after the site Le Moustier in France discovered by Gabriel de Mortillet. The typical Mousterian industries include small discoidal cores (disc-shaped cores) and two main types of flake tools – the side scraper, and the triangular point. The Mousterian differs from earlier industries in that it is based on flakes produced from carefully prepared cores using Levallois technique. In France a few regional traditions of Mousterian culture are found.

In the following table (Table 1), different traditions of Mousterian culture are given.

**Table 1: Mousterian Traditions**

Sl. No.	Name of tradition	Tool types and features
1	Mousterian of Acheulean Tradition	Handaxe, side scraper, backed knives, notched tools
2	Typical Mousterian	Handaxe and knives reduced; Levalloisean flakes predominate
3	Denticulated Mousterian	Over 80% of denticulates* and notched* tools
4	Charentian Mousterian	Few or no handaxe and backed knives; abundance of side scrapers

\* When one or more edges are worked into multiple notched shape, it is called a denticulate. When instead of multiple notches, there is only one such notch along an edge, it is called a notch. Denticulates are so named because the working edges of the tools look like teeth of a saw.

**Check Your Progress**

2) Describe the four Mousterian traditions.

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**10.2.1.3 Upper Palaeolithic**

This culture existed from 50,000 to 10,000 years ago in Europe, and ended with the end of the Pleistocene and onset of the Holocene era with the end of the last ice age. Approximately 40,000 years ago, *homo sapiens sapiens* or most modern man appeared. They still lived in caves and rock shelters in Europe but there were a few new inventions. They made diversified and specialised tools on blades. In addition to stone bone, ivory and antler were extensively used for making tools. Palaeolithic art was introduced, and this could have been evidence of practice of magic.

There are mainly three successive cultures prevailing in the upper Palaeolithic period in Europe as shown in Table 2. No other country yielded such divisions other than Europe.

**Table 2: Upper Palaeolithic Cultures (Europe)**

Sl. No.	Name of Culture	Sub-Culture	Tool types and features
1	Aurignacian	Audi Stage	Handaxe, disc, side scraper, Mousterian point, end scraper, graver. <i>Characteristic tool:</i> Audi knife blade & graver
		Chatelperronean/ Lower Aurignacian	<i>Characteristic tool:</i> knife blade with one edge straight and sharp, the other curved to a point and blunted by trimming.

		True Arignacian/ Middle Aurignacian	Bone tools like polished awl and point with a cleft base; stone tools like scrapers, end scrapers, edge trimmed blades, burins and fluted core etc. Also, paintings of animals and engravings
		Gravettian/ Upper Aurignacian	Both home art and cave art. <i>Characteristic tool:</i> narrow pointed blade like a penknife.
2	Solutrean		Bone tools like needles of bone and ivory, dart throwers, needle with an eye; stone tools like single shouldered point. <i>Characteristic tool:</i> laurel and willow leaf point by pressure flaking.
3	Magdalenian		Bone tools like spearheads, arrowheads, needles, arrow straighteners, spear throwers and fish hooks; Remarkable cave art, as well as home art <i>Characteristic tool:</i> parrot beak graver

### 10.2.2 Mesolithic

The Term Mesolithic literally means middle stone age derived from the Greek *mesos*, middle, and *lithos*, stone. It was the period lying between the Palaeolithic and Neolithic periods of the Stone Age. The Mesolithic period began at the end of the Pleistocene epoch, some 10,000 years BP, and ended with the introduction of agriculture, the date of which varied by geographic regions. In some areas, such as the Near East, agriculture already started by the end of the Pleistocene, and there the Mesolithic is short and poorly defined. In areas with limited glacial impact, the term Epipaleolithic is sometimes preferred.

Regions that experienced greater environmental effects during the so called ice age, with end of the Pleistocene, Mesolithic phase was much more evident, lasting several thousand years. In Northern Europe human beings were able to live well on rich food supplies from the marsh lands fostered by the warmer climate. Such conditions produced distinctive human behaviours that are preserved in the material record. These conditions also delayed the coming of the Neolithic until as late as 4000 BCE in northern Europe. Remains from this period are few and far between, and often limited to middens, which are like modern day garbage heaps.

The Mesolithic is characterised in most areas by small flint tools known as microliths. These were hafted on wooden or bone shafts in rows and made into composite tools. Microburins are quite common. Fishing tackle, stone adzes and wooden objects, like canoes and bows, have been found at some sites.

The Mesolithic people were nomadic similar to those in the Palaeolithic period. During this time people became species specific hunters and gatherers. They developed highly specialized hunting gathering mechanism. Environment in Europe during early Holocene was diverse. There were forested lands interspersed with bogs in Northern Europe. Expansive coastal area was open for habitation. In Mediterranean region typical

vegetation of the area grew. Central Europe had vast tracts of sandy, rocky and grass land. Mesolithic people living in diverse environment adapted themselves to the environment in which they lived. The artifacts from different environmental zones show that they formed a kind of ecological niche. Those who lived near the sea especially in Europe, led a life of hunting and fishing by using stone and bone tools and had a sort of semi sedentary life style. . The Mesolithic phases in Europe are divided into the following:

- a) **Azilian:** This culture is named after the site Mas d Azil in France discovered in 1890. During this time the reindeers became extinct in Eastern Europe and red deer and beavers became predominant. The stone industry consisted of small disc-shaped scrapers, back blunted knives etc. Flat harpoons made on stag horns with perforated base were also found. Some painted pebbles with red Ochre were found. The people of this period lived in the mouth of caves and rock shelters.
- b) **Tardenoisean:** This culture is named after the site Fere-an-Tardenoise . It represents a microlithic industry which becomes dominant and comprises various geometrical types such as triangles, trapezes, lozenges, lunates or crescents. They were perhaps employed as knife blades. These tools were not found in stratified layers but in sandy open sites. Some of these were found mixed with Neolithic ground axes, arrow heads and potsherds.
- c) **Maglemosean:** It derives its name from Maglemose, meaning big bog. Most of the cultural remains are recovered from bogs in Northern Europe.. Remains of this culture have been found in swampy areas near lakes and streams. Maglemoseans had different devices for catching fish, such as spears or harpoons. The typical bone implements were the harpoons with barbs on one side. Dugout canoes were invented at this time. Stone axes and adges were the main tools. They lived in forest zone.
- d) **Asturian:** It has taken its name after the site at Asturias in Spain. The remains of this culture are found in kitchen midden and are composed of sea shells carried in to the caves. Both stone and bone implements were found. Pick axe is a typical stone implement, while bone borers were also found.
- e) **Campignian:** Named after the site at Campigny, France, the stone industry includes campignian axe, rough awls, picks, transverse edged arrow heads, scrapers etc. There is evidence of crude pottery and land habitation in the form of pits.

<p><b>Check Your Progress</b></p> <p>3) Describe the Mesolithic phases in Europe.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
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### 10.2.3 Neolithic

The term comes from the Greek *neos* meaning new, and *lithos* meaning stone literally meaning New Stone Age. The term was coined by John Lubbock in 1865 as a refinement of the Three Age system. This period developed in the Holocene epoch, which is preceded by Mesolithic. This period was characterized by the development of agriculture,

and shift from food gathering to producing. This shift is said to be one of the most revolutionary changes to have occurred in human history. The first Neolithic culture is said to have started in the Fertile Crescent in the Near East.

Referred to as a “Revolution”, by V. Gordon Childe, this period witnessed the development of pottery, polished stone tools and permanent settlements. Childe called the Neolithic a revolution because it opened an entirely new way of life and sowed the seeds of civilization. He describes it as occurring about 10,000 BCE in some places with the adoption of agriculture and domestication of plants and animals. In Europe it developed as late as 4000 BCE.

The impact of agriculture and domestication of animals on human life was rather profound. Neolithic was food producing self sufficing economy. The main changes that came about include the following:

- i) More or less settled communities near agricultural fields as opposed to small nomadic bands in search of games. Development of village.
- ii) There was regular food supply
- iii) Development of community life
- iv) Increase in population size
- v) Growth in specialization of craft and division of labour
- vi) Concept of property develops
- vii) System of ownership possibly led to wars
- viii) Utilization of hides, wool and manure
- ix) Animals for transportation.

Other important features of the Neolithic include new technology leading to widespread changes in lifestyle. Here, handmade pottery appeared and their use became regular. Neolithic pottery at its early stage was made by hand and not on wheel, and was built up of coils or strips of clay. Wheel made pottery came in the later phase of Neolithic. Besides pottery, the identifying technology is the use of polished or ground stone tools in contrast to the flaked stone tools used in the Palaeolithic period. The Neolithic people were skilled farmers manufacturing a range of tools necessary for tending, harvesting and processing crops such as sickle blades and grinding stones for processing grains. During this period, the naturalistic art found in the preceding period became rare. Here engraving and painting with various stylized designs on the earthen pots were made. Another new invention was weaving. Weaving was a byproduct of agriculture and stock breeding and was done by using the fibers of flax and sheep wool. Along with garments made from skins of animals Neolithic people resorted to spinning and weaving in simple looms. The discovery of spindle whorl is a testimony to the practice of spinning.

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### **10.3 CHALCOLITHIC AND BRONZE AGE**

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The term Chalcolithic comes from the Greek *chalkos* meaning copper, and *lithos* meaning stone. This Age refers to a transitional period where early copper metallurgy appeared alongside the widespread use of stone tools. This period is a transitional one outside of the traditional three age system and occurs between Neolithic and Bronze Age. This cultural stage is more common in India. Bronze Age, on the other hand refers to the use of bronze an alloy of copper and tin, generally marking early civilizations in



different parts of the world. The term Bronze Age refers to a period in human cultural development when the most advanced metalworking (at least in systematic and widespread use) included techniques for smelting copper and tin from naturally occurring outcrops of ores, and then combining them to cast bronze. The Bronze Age is the earliest period for which we have direct written accounts, since the invention of writing coincides with its early beginnings.

### 10.3.1 Chalcolithic Cultures in India

In India, Chalcolithic cultures are rather widespread. They show a common economy and technology, however distinguished by distinct painted ceramic industry from one geographical zone to the other.. The area of diffusion is marked by black cotton soil, semi-arid climate and an economy based on agriculture, stock raising, hunting and fishing. Harappan culture where copper and stone were used can also be placed in this category.

In India, the chief Chalcolithic cultures include:

- a) Salvada Culture in Tapti and Pravara valley (c.2000-1700BC)
- b) Kayatha Culture in Central Malwa (c.2100-1800BC)
- c) Ahar Culture (Banas) in Southeast Rajasthan (c.3600-1500BC)
- d) Malwa Culture in Central and Western India (c.1700-1450 BC)
- e) OCP (Ochre colored pottery) Culture in Ganga-Yamuna Doab (c.1800-1400BC)
- f) Jorwe Culture in Western Maharashtra (c. 1500-900BC).

The common features of Chalcolithic cultures irrespective of different pottery fabrics and forms include the following:

- i) The houses were generally made of wattle-and-daub as represented by postholes, burnt lumps of clay with bamboo and reed impressions, and compact mud floors. They were usually of rectangular shape. At several sites the houses contained hearths and kitchen equipment like querns and mullers.
- ii) All potteries were made on wheel from well-levigated clay. The shapes comprise bowls of various sizes, including pedestalled and channel spouted pots, flat platters, dishes, basins, perforated vessels, jars and vases.
- iii) The artefacts of the Chalcolithic people comprised tools and weapons of copper, stone, bone and antler. Copper objects include knives, spearheads and arrowheads. Bone and antler tools comprise awls, points, tanged arrowheads and barbed arrowheads with socketed base. Microliths and blade tools have been found at almost all the sites.
- iv) The ornaments of these people comprise beads, pendants, bangles, rings and ear studs. Beads are made of semiprecious stones, terracotta, bone, shell, faience (a manmade substance used for making beads, seals etc.), steatite, copper and occasionally gold. Bangles are made of copper, terracotta and bone.
- v) The economy of the people was based on a combination of plant cultivation, animal domestication and hunting and gathering. Cultivated plants include wheat, barley, rice, jowar, green gram, gram, lentil, sesame, linseed and pea. Domesticated

animals include buffalo, sheep/goat, pig and dog, and wild animals include several species of deer and antelopes, and boar.

- vi) Evidence of disposal of the dead in the form of burial comes only from three sites, Kakoria and Magha in the Vindhya and Sonpur in the Ganga valley.

**Check Your Progress**

- 4) Discuss the salient features of Chalcolithic in India.

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**10.3.2 Indus Valley Civilization**

One of the oldest and largest civilizations in the world is the Indus valley Civilization (IVC) of the Indian subcontinent, so called since it developed in and around the river Indus. The area covered is larger than any other contemporary civilizations. The known eastern and western limits cover a distance of 1550 km between Alamgirpur in Uttar Pradesh and Suktagendor in Afghanistan. From north to south it expands over 1200 km between Rupar-Manda in Punjab to Daimabad-Bhagatrap in Gujarat.

IVC can be studied in different developmental stages as given under:

- 1) *Pre-Harappan Phase (7000-3300BC)*

This is seen in Mehrgarh, where an Aceramic and Ceramic Neolithic phase existed. The Aceramic phase was earliest and there was no pottery. The Ceramic stage yielded pottery.

- 2) *Early Harappan Phase (3300-2600BC)*

Emergence of several urban features like town planning, scripts and metal technology developed in this phase. Important sites include Kot Diji, Amri, Kalibangan, Dholavira.

- 3) *Mature/ Urban Harappan Phase (2600-1900BC)*

There was full growth of urban economy and society. Important sites include Mohenjodaro, Harappa, Lothal, Kalibangan, Dholavira, Ganweriwala, Rakhigarhi etc.

- 4) *Late Harappan Phase (1900-1300BC)*

There was a gradual collapse of urban character, and towards the end of this phase, IVC disappeared.

The characteristic features of IVC include the following:

- 1) *Twin dwelling and urban character:* Throughout the civilization, a twin dwelling structure is witnessed where there is a citadel area where administrative and religious activities took place; and a lower town area where the local people lived. Fortified townships with underground drains, individual houses separated from each other etc. are also seen. All these structures are made of bricks of uniform dimensions.

- 2) *Writing*: This is mostly known from seals, which often have impressions of cloth or cords on the back, suggesting that the seals marked bundles of some kind. Unlike Mesopotamia and Egypt, few tablets with writing on them, and very few painted symbols are found. This suggests that the writing might have had a different primary purpose. This has not been deciphered yet.
- 3) *Extensive trade*: Both internal and external trade had taken place. External trade had taken place with Sumerian Civilization, which has records of trading with Meluhha (probably the ancient name for Indus). The presence of a dockyard at Lothal supports the view of large volume external trade over sea.
- 4) *Weights and Measures*: Standardized units of weights and measures were used throughout. The basic length unit was a cubit of 52 cms. or a foot of 33.5 cms. The basic weight unit was 13.6 gms and thereafter multiples. Terracotta cakes, weights, measures, have been found.
- 5) *Identical pottery, shape & decoration*: The characteristic pottery is black and red ware with black painted designs. The most popular design is a series of intersecting circles. The other common types are plain ware and plain red ware, both glazed and unglazed.

By 1200 BC, IVC was no longer seen. But why did this civilization disappear? Sites in Baluchistan and Mohenjodaro show evidence of burnt-down houses and sprawled skeletons: Did it indicate warfare? However, invasion by foreigners is no longer accepted. There is no evidence of anyone else appearing. Perhaps then the people died and with it the civilization due to internal conflict or plague. The population seems to have dispersed as volume of long-distance trade declined dramatically because of tectonic movement, which raised the bed of River Saraswati. It was no longer navigable. Desert encroached upon fertile land. Reasons for this change are coming out with new discoveries. However, it may be said that this change could have occurred due to one or more of the following reasons: (a) Flooding along the Indus, (b) Shifts in patterns of Mesopotamian trade, (c) Change in subsistence farming, and (d) Geological disturbances near the Saraswati river, which caused it to dry up, and tributaries diverted to new courses, catastrophically disturbing farming life along its bank., (e) encroachment of desert.

By the end of the Late Harappan Stage, the cities were permanently abandoned. Sumerian records ceased to mention trade with Meluhha. IVC tradition largely disappeared leaving only echoes in myths and general cultural traits. Unlike the Sumerian and Egyptian early civilizations, which were known from historical sources, the Harappan civilization was truly lost and forgotten until archaeologists rediscovered it.

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## 10.4 IRON AGE

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This age refers to the advent of iron technology. This is the stage in the development of a people where the use of iron implements as tools and weapons is prominent. The adoption of this material coincided with other changes in some past societies often including differing agricultural practices, religious beliefs and artistic styles, although this was not always the case. The Iron Age is the last principal period in the Three-Age system for classifying prehistoric societies. Its date and context varies depending on the geographical region. Classically, the Iron Age is taken to begin in the 12th century BCE in ancient Near East, ancient Greece, and ancient India. In other regions, it started much later.

Iron's hardness, high melting point and the abundance of iron ore sources made iron more desirable and cheaper than bronze and contributed greatly to its adoption as the

most commonly used metal. Once iron technology was mastered, tools, weapons and vessels of this metal became available to common people and slowly stone tools went out of use. The effective end of Stone Age came only after the introduction of iron technology.

Iron technology in South Asia including India is primarily associated with late prehistoric or early historic cultural periods. Archaeologically, Painted Grey Ware culture of Northern India is considered as iron using group in the sub-continent. Although not conclusive, but earliest iron tools in the sub-continent are found from different South Afghanistan sites, such as Deh Morio Ghundai, Mundi Gak, and Said Quala Tepe. All Chalcolithic cultures in India, except the Harappans, were village cultures with copper technology, and with copper technology only semi-arid alluvial plains of Indus and Saraswati were urbanised. With iron, the monsoonal forests of Bihar and Uttar Pradesh were cleared and colonized. This led to the second urbanization in India and this time in the Gangetic plains.

In Northern India, Painted Grey Ware and Northern Black Polish were the earliest Iron Age cultures; at some sites, a pre-Painted Grey Ware known as Black and Red ware is said to mark the beginning of Iron Age. In South India, iron technology is marked by megalithic cultures.

#### **10.4.1 Painted Grey Ware (PGW) and Northern Black Polish Ware (NBPW)**

PGW is a very fine ware, fired under reducing condition, which gives it a grey colour. On the other hand, NBP is made on a fast wheel from well-levigated clay, and it is well-baked. The quality of NBP is quite remarkable. Its distinctive feature is the glossy surface with mirror effect. NBP is an evolved version of PGW, but it is rarely decorated with painted designs. PGW is usually associated with cultures of rural areas and NBP with cities.

These cultures developed in the upper Gangetic basin in association with iron technology and marked the first large-scale exploitation of the region by settled population. Main concentration is Southern Punjab, Northern Rajasthan and Western Uttar Pradesh. PGW was first discovered in Ahichchatra in 1944, and its full cultural and historical significance realized only after B. B. Lal's excavation of Hastinapur in 1954-55. Over 400 sites have been discovered in Ravi-Sutlej basin, Ghaggar basin and Ganga-Jamuna Doab. Important excavated sites of PGW are Hastinapur, Ahichchatra, Alamgirpur, Atranjikere, Noh, Jodhpur, Bhagwanpur, Indraprastha, Kurukshetra, Panipat and Tilpat.

PGW people were agriculturists with cattle breeding as their principle occupation. They domesticated the cow, buffalo, pig, goat, sheep and horse. Their houses were of mud-bricks; walls occasionally made of reeds plastered with mud. Their diet consisted of rice, lentil, beef, pork, mutton, venison, horse flesh - attested by bones with definite cut marks from Hastinapur. Food was also supplemented by hunting with bows and arrows.

Iron technology accelerated colonization of middle and lower Ganga valley around 7<sup>th</sup> century BCE, when the NBP appeared. NBP saw emergence of cities and the first political entities known as Mahajanapadas in the Ganga plains in the 6<sup>th</sup> century BCE. This was the location of the second major Hindu epic, Ramayana and the rise of Buddhism and Jainism. This period witnessed the second urbanisation. NBP is seen throughout Northern India but its main occurrence is in the Ganges plains in Uttar Pradesh and Bihar. It is found in small quantities in Central, Southern and Eastern India, as well as Bangladesh and Sri Lanka. This pottery was probably carried off to far places by Buddhist monks and high officials.

By 6<sup>th</sup> century, a number of these Mahajanapads assimilated into the first Indian empire known as the Magadhan Empire with its capital at Pataliputra. After a long gap of 1500 yrs. (after the first urbanization of IVC), writing appeared in the form of the Brahmi script.

C-14 dates place PGW between 1000 – 600 BC, and NBP to 600 – 100 BC.

### 10.4.2 Megalithic Culture

The term Megalithic comes from the Greek word *megas* meaning “large” and *lithos* meaning “stone”. Therefore, this is a culture distinguished by the presence of monuments built by large stone structures used for funeral or other ceremonies. In Peninsular India, pottery associated with megaliths is black and red ware of various types. Associated iron objects include flat celts with two fastening rings; socketed and barbed arrowheads, long swords, lances, spearheads, wedges, sickles and hoes.

Black and red ware of megalithic association is found between 1000-700 BC, but C-14 dates place megalithic culture of South India within 1000BC-1BC, although among a large number of tribal groups in the Northeast, East and South India, megaliths are still erected.

In 1949 V. D. Krishnaswamy systematically classified the South Indian megaliths after an extensive survey. He found more than 40 types and sub-types, with the main concentration in Karnataka, Andhra Pradesh, Kerala, Tamil Nadu and Maharashtra.

In the following some of the types of megaliths are given.

#### 10.4.2.1 Chambered Grave

These megaliths are meant for burial purposes, and constitute a stone chamber or ossuary. The sub-types of this include:

- a) Passage chamber tomb – These are irregular on plan, and consists of a passage leading to the main chamber where the burial has been made. This type is found in sites like Terdal, Halingali and Hunnar in Karnataka.
- b) Port hole chamber – These chambers have a port hole, on one wall of the chamber through which the bones would be kept or some other offerings of grave goods.. These megaliths are found in several sites in Karnataka, Andhra Pradesh and Kerala.
- c) Port hole cist – This is similar to the port hole chamber, however the chambered grave is completely underground. There exist rubble packing on top, and placed around a cist made of erect stone slabs in a coursed manner. These are also found in several sites in Karnataka, Andhra Pradesh and Kerala.
- d) Cist with slab circle – Here, the stone circle is made of slabs, and the top is alternatively rounded and flat. This structure is seen in Irulabanda and Bopanatham in Chittoor district, Andhra Pradesh.
- e) Rock-cut monuments – These are underground chambers scooped out of soft laterite bed rock. Each had an approach cut vertically in the rock, and provided with steps. The entrance is square or rectangular opening leading to a circular/semicircular/rectangular chamber with a vaulted roof with opening at the top. This is seen in Piklihal in Mallapuram district in Karnataka.
- f) Topikal – Here, the capstone rests on 3 or 4 clinostats, and the capstone is convex/circular looking like a hat, hence locally called “*topical*” (hatstone). An urn burial

is placed in a pit below the structure . This is a common type in the Malabar region of Kerala.

- g) Kudaikal – This is a variation of the Topikal where the capstone is plano-convex and looks like an “umbrella stone”. These occur near Topikal.
- i) Multiple hood stone – This is a rare type of Topikal found in Cheramanangad, Kerala. Here, instead of 4, there are 5-12 clinostats fixed and support multiple hood stones.

#### **10.4.2.2 Unchambered Grave**

- a) Pit burial – These are 2 to 4m pits where a burial is placed. These are simple, oblong/ oval/ cylindrical pits dug into the ground containing skeletal remains, black and red pottery, and iron objects. These are found all over south India.
- b) Menhirs or Nadukal – These are single standing monoliths between 1 to 3m in height. They usually mark the presence of an urn burial nearby. They are commonly seen in Palka and Trichur in Ernakulam district of Kerala, and Murradoddi in Andhra Pradesh.
- c) Cairn circles – This consists of a pit burial with heavy cairn circles at considerable depth. This is a thin spread of rubble bounded by stone circle. In Karnataka and Andhra Pradesh, the cairns are heavy; while in Tamil Nadu, they are thin.
- d) Terracotta Sarcophagus Burial – These are boat-shaped terracotta troughs with two rows of hollow legs and two lids to cover. These contain pottery and iron objects along with skeletal remains. These have been discovered in Jadigenahalli and Pallavaram in Tamil Nadu, and Gajjalakunda and Sankhavaram in Andhra Pradesh.

#### **10.4.2.3 Non-Sepulchral**

These megaliths have no sepulchral or burial functions. They were probably put up by Iron Age people for ceremonial purposes.

- a) Menhirs – single dressed or undressed standing stone with base driven into the ground. These are still raised among the Khasi communities of Meghalaya state commemorating a grand feast or an event.
- b) Stone Alignments – number of stones or menhirs placed in a line. These are found in Karnataka, Andhra Pradesh and Kerala.

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### **10.5 SUMMARY**

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The prehistoric period is a vast period when the development of culture of human beings took place. This belongs to a time before the discovery of writing and recorded history. This vast time span, for convenience’s sake, is divided by archaeologists and prehistorians into different phases. The classification that is generally followed is the one based on tool making raw material and typo-technology. Accordingly, the Three Age system initially suggested by Thomsen and later modified by Lubbock is widely used.

The Stone Age is thus the first phase in human history in which stone was widely used to make different implements. This is a period which is of interest to prehistorians and anthropologists alike since the first cultural and anatomical changes can be witnessed during this period. In this period several cultures on the basis of their unique technology or economy can be differentiated.

The Stone Age is followed by the Chalcolithic, Bronze and Iron Ages. In these succeeding phases, the use of metals which likely began with the smelting of copper, subsequent preparation of bronze, an alloy of copper and tin, followed by iron, were witnessed. It was iron technology which ushered in a dramatic change since with iron tools wooded and forested areas could be cleared up and colonized. Iron heads for hoe and plough enabled for better and extensive tilling of soil, which yielded surplus food, thereby leading to social stratification and state formation.

However one point to be noted is that these prehistoric cultures and their succession are not uniform throughout, and they played out differently in varying degrees in different parts of the world.

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## **10.7 ANSWERS TO CHECK YOUR PROGRESS**

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- 1) Human prehistory has been periodised into three consecutive time periods based on the respective predominant tool-making raw material and technologies, namely, the Stone Age, Bronze Age and Iron Age.
- 2) The four Mousterian traditions are Mousterian of Acheulean tradition, Typical Mousterian, Denticulated Mousterian and Charentian Mousterian. For more details please refer to the sub-section 3.3.1.2.
- 3) The Mesolithic phases in Europe are Azilian, Tardenoisean, Maglemosean, Asturian and Campignian. For further details please refer to the sub-section 3.3.2.
- 4) Please refer to the sub-section 10.4.1.