

**BASUDEV GODABARI DEGREE COLLEGE,  
KESAIBAHAL**




**BLENDED LEARNING  
STUDY MATERIALS UNIT – II**

**DEPARTMENT OF HISTORY**

**1<sup>ST</sup> SEMESTER PAPER - II**

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# BASUDEV GODABARI DEGREE COLLAGE, KESAIBAHAL

Self Study Modull details

Class – I Sem

Subject – History

Paper Name – Social formations and cultural patterns of ancient world History.

Paper - II

Unit -2

## Syllabus Plan Unit - II

Neolithic Culture.

- 1) Food Production
- 2) Development of Agriculture
- 3) Animal Husbandry.

1- <http://youtu.be//xboeWlQNMpdU>

2- <http://youtu.be/1fWx837rEAg>

## Learning objectives

After learning this unit you should be able to

1. What do you mean by Neolithic age?
2. Write few sentence on Neolithic tools?
3. What do you mean by fertile crescent?
4. Write the short note on beginning of agriculture?
5. Write few lines on domestication of plants?
6. Describe in brief on domestication of Animals?
7. What do you mean by Animal Husbandry?
8. What is the different between old stone age and new stone age?
9. Write a short note on Invention of Poultry.
10. Write a few sentence on food and accupation of Neolithic People?
11. How man was changed from hunter and food gather to food producer?
12. What are the main features of Neolithic Period?
13. Write a description note on Neolithic Culture?
14. What are the advance made by Neolithic man over man?
15. Discuss the details about life of the people being Neolithic age?

## Food Production

### Beginning of Agriculture & Animal Husbandry

Man made significant advances in the Middle Stone, or Mesolithic Age which separated the Upper Palaeolithic times from the Neolithic (New Stone) Age. In this age, the glaciers were shrinking and the areas formerly covered by ice were gradually becoming thickly forested. Big animals moved away, but the dog was domesticated by man and helped him in hunting game. The Mesolithic Age is marked by the wide use of small tools known as microliths, some of which were used as spearheads and arrow heads. The Mesolithic people also used the sledge as a means of transport over snow and ice. They harvested the foodgrains which grew wild in some regions. It is possible that the Mesolithic people of Palestine also practiced cultivation to some extent.

### The Beginning of Farming

The change from food –gathering to food –producing did not come about suddenly; it grew gradually out of the practices of the Mesolithic people. We know that plants grow from seed, but this was not so obvious to man in those days. He saw plants growing around him fertilized naturally year by year. Ancient man took these things for granted and harvested ripened grain, not knowing yet that grain could be planted. When fertility was exhausted and the soil gave little or no crops, he would move on to new lands that bore grain.

Perhaps, one day someone observed that the grain swept from the threshing and deposited on the dung heap sprouted and in time produced golden grain. It

required close observation to see how the plant grew from a seed. The man who first tried to grow plants from a seed may be considered the first scientist. His first successes led to bigger experiments and, thus, a dependable supply of foodgrains was ensured through regular cultivation.

The transition to agriculture had very significant and long-term impact on early human societies. The beginning was made at the end of the Pleistocene epoch about 12,000 years before the present (henceforth BP) when the temperatures fell and the climate grew extremely cold. At this time the hunter-gatherers adapted their subsistence strategy to suit the changes in climate as well as in animal and plant life. Hunting and gathering activities now became more well regulated and specialised and demanded an intimate knowledge of plants and animals. The economy increasingly came to be based on farming and stock raising. A better understanding of the available wild plants and animals was therefore a precondition for the beginning of agriculture. The use of more efficient tools and other evidence indicates that in many parts of the world people were exploring newer ways of acquiring food. Generally speaking archaeologists have associated the beginning of agriculture with a relatively new stage of cultural evolution - the Neolithic period. By about 8000 BP substantial sections of the world's population had given up hunting gathering and were pursuing farming and pastoral activities.

It is believed that the transformation from hunting -gathering to agriculture occurred gradually after a long period of time. The early development of agriculture may have involved first the management of wild grains and other useful plants by removing adjacent weeds. It is also possible later that a primitive tribe may have discovered a vigorous plant; the seeds were harvesting for food, but some were deliberately sown to ensure supply for the next season.

Several theories were advanced to shed light on the history of agriculture, particularly how it started. These include the oasis, hilly flanks, feasting model, demographic, evolutionary or intentionality, and domestication theories. These are briefly described below:

#### **Oasis Theory :**

One of the early explanations, called the 'Oasis Theory', was propounded as early as 1908. It was popularised by Gordon Childe who pioneered the study of

pre-history and provided the term 'Neolithic Revolution' to convey the overall significance of the transition. The main thrust of the theory was on the suggestion that farming began in some parts of the Fertile Crescent (Southwest Asia) due to severe climatic changes. The dramatic reversals were due to the northward movement of the rain-bearing clouds from this region. These changes caused the formation of oasis — small patches of green where men, plants and animals got concentrated, separated by large tracts of deserts. Scarcity of food in the surrounding areas attracted the starving to the oasis. Such close habitation encouraged the process of 'domestication'. The 'oasis theory' was based on the idea that socio-economic events like the beginning of agriculture do not take place on a worldwide scale. They take place in restricted blocks of area measuring a few hundred miles.

#### **Hilly Flanks Theory :**

The Hilly Flanks hypothesis, proposed by Robert Braidwood in 1948, suggests that agriculture began in the hilly flanks of the Taurus and Zagros mountains, where the climate was not drier as Childe had believed, and fertile land supported a variety of plants and animals amenable to domestication.

#### **Feasting model :**

The Feasting model by Brian Hayden suggests that agriculture was driven by ostentatious displays of power, such as giving feasts, to exert dominance. This required assembling large quantities of food, which drove agricultural technology.

#### **Demographic Theory :**

The Demographic theories proposed by Carl Sauer and adapted by Lewis Binford and Kent Flannery point to an increasingly sedentary population that expanded up to the carrying capacity of the local environment and required more food than could be gathered. Various social and economic factors helped drive the need for food.

#### **Evolutionary Theory :**

The evolutionary / intentionality theory, developed by David Rindos and others, views agriculture as an evolutionary adaptation of plants and humans. Starting with domestication by protection of wild plants, it led to specialization of location and then full-fledged domestication.

**Climate Theory :**

Peter Richerson, Robert Boyd, and Robert Bettinger make a case for the development of agriculture coinciding with an increasingly stable climate at the beginning of the Holocene. Ronald Wright's book and Massey Lecture Series 'A Short History of Progress' popularized this hypothesis.

**Postulated Younger Dryas impact event :**

The postulated Younger Dryas impact event, claimed to be in part responsible for megafauna extinction and ending the last glacial period, could have provided circumstances that required the evolution of agricultural societies for humanity to survive. The agrarian revolution itself is a reflection of typical overpopulation by certain species following initial events during extinction eras; this overpopulation itself ultimately propagates the extinction event.

**View of Leonid Grinin :**

Leonid Grinin argues that whatever plants were cultivated, the independent invention of agriculture always took place in special natural environments (e.g., South-East Asia). It is supposed that the cultivation of cereals started somewhere in the Near East: in the hills of Palestine or Egypt. So Grinin dates the beginning of the agricultural revolution within the interval 12,000 to 9,000 BP, though in some cases the first cultivated plants or domesticated animals bones are even of a more ancient age of 14-15 thousand years ago.

Paleoanthropologists have estimated that the earliest fossil evidence of Homo sapiens- anatomically modern humans- is roughly 196,000 years old. For the vast majority of the time since our species arrival on the evolutionary scene, we acquired food by gathering it from the wild. Wild plant-based foods and fungi were important staples in the Paleolithic diet, including the wild ancestors of some species that are widely cultivated today. While the ancestral hunt for wild animals is often depicted as an epic conflict against woolly mammoths, woolly rhinos, giant elk, and other prehistoric megafauna, early humans also took to foraging for humble insects and scavenging the remains of dead animals.

From as early as 11,000 BCE, people began a gradual transition away from a hunter-gatherer lifestyle toward cultivating crops and raising animals for food. The shift to agriculture is believed to have occurred independently in several parts of the world, including northern China, Central America, and the Fertile Crescent, a region in

the Middle East that cradled some of the earliest civilizations. By 6000 BCE, most of the farm animals we are familiar with today had been domesticated. By 5000 BCE, agriculture was practiced in every major continent except Australia.

Why did people give up hunting and gathering for farming? There are many plausible reasons, all of which likely played some role at different times and across different parts the world:

- Changes in climate may have made it too cold or too dry to rely on wild food sources.
- Greater population density may have demanded more food than could be harvested from the wild, and farming provided more food per acre, even if it did require more time and energy.
- Overhunting may have helped push woolly mammoths and other megafauna to extinction.
- Changing technology, such as domesticated seeds, would have made agriculture a more viable lifestyle.

### Domestication of Plants and Animals

The transformation of hunter-gatherers to farmers is generally heralded as a remarkable achievement, which reduced hunting to a ritual activity or sport. It resulted from a process of domestication of plants and animals. It can be detected on the basis of three primary classes of evidence: a) on the availability of animals and plants outside their natural range, b) Morphological changes, c) increase in numbers of animals and plants. The process required human intervention and control over these species. It should be remembered that this was neither a completely post-Pleistocene adaptation nor did it suddenly replace the life of hunter-gatherers with a relatively sedentary existence in villages.

### Domestication of Plants

The presence of seeds and plants at Nahel Oren in Israel (c.20,000BP) shows that certain plants may have been selectively cultivated at a very early date when humans were primarily nomadic. The nature of vegetational changes in parts of West Asia after 20,000 BP was such that it made large seeded grasses available. These grasses had a propensity to scatter their seeds over a large area. When this happens frequently the seed-holding spike of, for instance wild wheat and barley, became brittle. The



seeds disperse even before the plants ripen. The seeds of the plants of a shattering nature could be harvested by tapping the stem with a stick. If these seeds were sown, 'selective pressure' in favor of plants of a shattering variety of with natural means of dispersal would be at work. (Illustration showing wild and cultivated variety of wheat)

When has described the changes taking place in cultivates wheat. According to him "Domestication of wheat, one of the world's most important crops, involved both human manipulation and natural hybridization between related genera. Human intervention appears to have been aimed at producing freethresing, non-shattering varieties. The simplest, wheat are "diploid" meaning that they have two sets of seven chromosomes. Hybridization with related species produced tetraploid wheats, with four sets of chromosomes. Hybridization eventually produced hexaploid wheats, with six sets of chromosomes, which occur only in cultivates species of wheat. By mixing genetic material from various species, early farmers produced forms of wheat that could adapt to diverse habitats".

As different from the above-mentioned grasses few wild plants have a gene that produce tough spikes that do not become brittle. The seeds of these plants last longer, but they do not disperse well in nature. Around 20,000 BP when the hunter-gatherers were gathering edible plants to supplement their diet, it was advantageous to harvest plants with tough spikes whose heads were intact. However, the cultivation of these plants required additional efforts. These wild cereals had grown along with other plants in the hilly regions that had well-drained loamy clay soil which was most conducive for the growth of these plants. But the seeds of the plants to be cultivated had to be sown in areas away from the wild, self-seeding plants in order to avoid competition among these plants.

The seeds had to be brought to more level ground near reliable sources of water and a fairly adequate rainfall. The piedmont of the Fertile Crescent region that came to support the Neolithic sites of Syria, the upper reaches of the river Euphrates and Jarmo on the Zagros 'Mountains provided the natural conditions in which these plants could thrive. The remains of cereals provide the evidence for this. These plants have tough spikes and are indistinguishable from the wild varieties. They are found in places away from the natural habitat of these species. Human intervention widened the gene pool of these plants. It also highlighted the indispensable role of human beings in the process of cultivation. Similarly the potentialities inherent in food cultivation for the

emergence of a more complex society due to prolonged stay in a particular place and the storage of the produce gradually transformed the life of people.

### Early agricultural sites

Archaeological evidence from different parts of the world has established that the transition to agriculture was not so much a result of intention or zeal to make the plants and animals more useful. Rather, social forces as density of population and changing ecological conditions compelled human communities to tap the potentiality inherent in certain plants and animals in such a manner that they became useful to them on a sustainable basis.

The life of hunter-gatherers in West Asia was affected by climatic fluctuation that occurred towards the end of the Pleistocene. Fresh research has shown that climate and changes in vegetation varied in different parts of West Asia. New evidence from deep-sea cores, surface sediments and the pollen cores recovered from the lakes of South West Asia show that the climate was cool and dry during the Upper Paleolithic period. The increase in temperature immediately after the end of the Pleistocene was followed by an increase in dryness around 12,000 BP.

### Agriculture in the Fertile Crescent

Early agriculture is believed to have originated and become widespread in Southwest Asia around 10,000-9,000 BP, though earlier individual sites have been identified. The Fertile Crescent region of Southwest Asia is the centre of domestication for three cereals (einkorn wheat, emmer wheat and barley) four legumes (lentil, pea, bitter vetch and chickpea) and flax. The Mediterranean climate consists of a long dry season with a short period of rain, which may have favoured small plants with large seeds, like wheat and barley. The Fertile Crescent also had a large area of varied geographical settings and altitudes and this variety may have made agriculture more profitable for former hunter-gatherers in this region in comparison with other areas with a similar climate

Finds of large quantities of seeds and a grinding stone at the paleolithic site of Ohalo II in the vicinity of the Sea of Galilee, dated to around 19,400 BP has shown some of the earliest evidence for advanced planning of plant food consumption and suggests that humans at Ohalo II processed the grain before consumption. Tell Aswad is the oldest site of agriculture with domesticated emmer wheat dated by Willem van der Meulen and his assistant Johanna Bakker-Heeres to 8800 BC. Soon after came hulled,

two-row barley found domesticated earliest at Jericho in the Jordan valley in Jordan. Other sites in the Levantine corridor that show the first evidence of agriculture include Wadi Faynan 16 and Netiv Hagdud. Jacques Cauvin noted that the settlers of Aswad did not domesticate on site, but "arrived, perhaps from the neighbouring Lebanon, already equipped with the seed for planting". The Heavy Neolithic Qaraoun culture has been identified at around fifty sites in Lebanon around the source springs of the River Jordan, however the dating of the culture has never been reliably determined.

### **Agriculture in China**

Northern China appears to have been the domestication center for foxtail millet (*Setaria italica*) and broomcorn millet (*Panicum miliaceum*) with evidence of domestication of these species approximately 8,000 years ago. These species were subsequently widely cultivated in the Yellow River basin (7,500 years ago). Rice was domesticated in southern China later on. Soybean was domesticated in northern China 4,500 years ago. Orange and peach also originated in China. They were cultivated around 2500 BC.

### **Agriculture in India**

Evidence of the presence of wheat and some legumes in the sixth millennium B.C. have been found in the Indus Valley. Oranges were cultivated in the same millennium. The crops grown in the valley around 4000 B.C. were typically wheat, peas, sesame seed, barley, dates and mangoes. By 3500 B.C. cotton growing and cotton textiles were quite advanced in the valley. By 3000 B.C. farming of rice had started. Another monsoon crop of importance at that time was cane sugar. By 2500 B.C., rice was an important component of the staple diet in Mohenjodaro near the Arabian Sea.

The Indus Plain had rich alluvial deposits which came down the Indus River in annual floods. This helped sustain farming that formed basis of the Indus Valley Civilization at Harappa. The people built dams and drainage systems for the crops. By 2000 B.C. tea, bananas and apples were being cultivated in India. There was coconut trade with East Africa in 200 B.C.. By 500 B.C., eggplants were being cultivated.

### **Agriculture in Europe**

In Europe agriculture developed through a combination of migration and diffusion. The oldest sites with agriculture are along the Mediterranean coast, where long-distance population movement and trade could be easily effected by boat. Franchthi Cave in southeastern Greece, a site occupied for more than 15,000 years,

documents the development of agriculture in southern Europe over several centuries. A few Southwest Asian plants are part of the earlier record at Franchthi Cave. Wild emmer may have grown in the area at the time; it is not clear whether it was domesticated locally or had been brought in from Southwest Asia. The same may be true for lentils and grass peas.

As agriculture spread to more-temperate regions in Europe, practices that focused on emmer, einkorn, and legumes became important. The earliest evidence for agriculture northwest of the Black Sea comes from the Starcevo-Cris culture (c.7500BP), where four types of wheat, as well as oats, barley, peas and broomcorn millet, have been found. The millet is particularly interesting because it was extensively grown in northern China at the same time and presumably originated there, although it may have been independently domesticated in eastern Europe. By 6000 BP the transition to food production was under way in the British Isles, and by 5000 BP farming was common in western Europe.

### **Agriculture in Africa**

On the African continent, three areas have been identified as independently developing agriculture: the Ethiopian highlands, the Sahel and West Africa. By contrast, Agriculture in the Nile River Valley is thought to have developed from the original Neolithic Revolution in the Fertile Crescent. Many grinding stones are found with the early Egyptian *Sebilian* and *Mechian* cultures and evidence has been found of a neolithic domesticated crop-based economy dating around 7,000 BP. Unlike the Middle East, this evidence appears as a "false dawn" to agriculture, as the sites were later abandoned, and permanent farming then was delayed until 6,500 BP with the *Tasian* and *Badarian* cultures and the arrival of crops and animals from the Near East.

Bananas and plantains, which were first domesticated in Southeast Asia, most likely Papua New Guinea, were re-domesticated in Africa possibly as early as 5,000 years ago. Asian yams and taro were also cultivated in Africa.

The most famous crop domesticated in the Ethiopian highlands is coffee. In addition, khat, ensete, noog, teff and finger millet were also domesticated in the Ethiopian highlands. Crops domesticated in the Sahel region include sorghum and pearl millet. The kola nut was first domesticated in West Africa. Other crops domesticated in West Africa include African rice, yams and the oil palm. Agriculture spread to Central and Southern Africa in the Bantu expansion during the 1st millennium BC to 1st millennium AD.

## Agriculture in the Americas

Maize (corn), beans and squash were among the earliest crops domesticated in Mesoamerica, with maize beginning about 7500 BC, squash, as early as 8000 to 6000 BC and beans by no later than 4000 BC. Potatoes and manioc were domesticated in South America. In what is now the eastern United States, Native Americans domesticated sunflower, sumpweed and goosefoot around 2500 BC. At Guila Naquitz cave in the Mexican highlands, fragments of maize pollen, bottle gourd and pepo squash were recovered and variously dated between 8000 and 7000 BC. In this area of the world people relied on hunting and gathering for several millennia to come. Sedentary village life based on farming did not develop until the second millennium BC, referred to as the formative period.

## Agriculture in New Guinea

Evidence of drainage ditches at Kuk Swamp on the borders of the Western and Southern Highlands of Papua New Guinea shows evidence of the cultivation of taro and a variety of other crops, dating back to 11,000 BP. Two potentially significant economic species, taro (*Colocasia esculenta*) and yam (*Dioscorea* sp.), have been identified dating at least to 10,200 calibrated years before present (cal BP). Further evidence of bananas and sugarcane dates to 6,950 to 6,440 BP. This was at the altitudinal limits of these crops, and it has been suggested that cultivation in more favourable ranges in the lowlands may have been even earlier. Scientists have found evidence that taro was introduced into the Solomon Islands for human use, from 28,000 years ago, making taro cultivation the earliest crop in the world. It seems to have resulted in the spread of the Trans-New Guinea languages from New Guinea east into the Solomon Islands and west into Timor and adjacent areas of Indonesia. This seems to confirm the theories of Carl Sauer who, in "Agricultural Origins and Dispersals", suggested as early as 1952 that this region was a centre of early agriculture.

## Aztec and Maya agriculture

Agriculture in Mesoamerica dates to the Archaic period of Mesoamerican chronology (8000-2000 B.C.). During this period, many of the hunter gatherer micro-bands in the region began to cultivate wild plants. The cultivation of these plants probably started out, near seasonal camps, that the band could rely on when hunting was bad, or when there was a drought. By creating these known areas of plant food, it would have been easier for the band to be in the right place, at the right time, to

collect them. Eventually, a subsistence pattern, based on plant cultivation and supplemented with small game hunting, became much more reliable, efficient and generated a larger yield. As cultivation became more focused, many plants species became domesticated. These plants were no longer able to reproduce on their own, and many of their physical traits were being modified by human farmers. The most famous of these, and the most important to Mesoamerican agriculture, is maize. Maize is storable for long periods of time, it can be ground into flour, and it easily turns into surplus for future use. Maize became vital to the survival of the people of Mesoamerica, and that is reflected in their origin, myths, art work and rituals.

The second most important crop in Mesoamerican agriculture is the squash. Cultivated and domesticated before maize, dated to 8000 B.C.E. in Oaxaca, the people of Mesoamerica utilized several different types of squash. The most important may be the pumpkin, and its relatives. The seeds of the pumpkin are full of protein, and are easily transportable. Another important member of the squash family is the bottle gourd. This fruit may not have been very important as a food source, but the gourd itself would have been useful as a water container. Another major food source in Mesoamerica are beans. These may have been used as early as squash and maize, but the exact date of domestication is not known. These three crops formed the center of Mesoamerican agriculture. Maize, beans, and squash form a triad of products, commonly referred to as the "Three Sisters," that provided the people of Mesoamerica as complementing nutrient triangle. Each contributes some part of the essential vitamin mix that human beings need to survive. An additional benefit to these three crops is that planting them together helps to retain nutrients in the soil.

Many other plants were first cultivated in Mesoamerica; tomatoes, avocados, guavas, chilli peppers, manioc, agave, and prickly pear were all cultivated as additional food resources, while rubber trees and cotton plants were useful for making cultural products like latex balls and clothing. Another culturally important plant was the cacao. Cacao beans were used as money, and later, the beans were used for making another valuable product, chocolate.

The Aztecs were some of the most innovative farmers of the ancient world, and farming provided the entire basis of their economy. The land around Lake Texcoco was fertile but not large enough to produce the amount of food needed for the population of their expanding empire. The Aztecs developed irrigation systems, formed terraced

hillsides, and fertilized their soil. However, their greatest agricultural technique was the chinampa or artificial islands also known as "floating gardens". These were used to make the swampy areas around the lake suitable for farming. To make chinampas, canals were dug through the marshy islands and shores, then mud was heaped on huge mats made of woven reeds. The mats were anchored by tying them to posts driven into the lake bed and then planting trees at their corners that took root and secured the artificial islands permanently. The Aztecs grew corn, squash, vegetables and flowers on chinampas.

### **Animal Husbandry**

Animal Husbandry is a branch of agriculture concerned with the domestication of, care for and breeding of animals such as dogs, cattle, horses, sheep, goats, pigs and other like creatures. Animal husbandry began in the so-called Neolithic (new stone) Revolution around 10,000 years ago but may have begun much earlier. It has been speculated that human beings used fire to cook food 1.5 million years ago but the only archaeological evidence establishes the date of use of fire for cooking at 12,500 years ago as indicated by the discovery of clay cooking pots in East Asia and Mesopotamia.

#### **Domestication of Animals:**

The domestication of animal amounted to capturing, taming and breeding wild animals. They were separated from their natural habitat and provided shelter and food. Domestication of various species was followed with breeding taking place under captivity. According to Sandor Bokonyi it is a long and complicated process. Animal domestication was the culmination of experience and knowledge gained through tens of thousands of generations of hunting, about the anatomy, biology, physiology, behavior and so on of a number of wild animal species. The domestication itself was not a process that occurred from one animal generation to the other but took several and sometimes up to thirty generations. Certain considerations must have guided the selection of animal species to be domesticated. The important ones of these were (i) the provision of food for these species was easily available through human efforts and guidance (ii) the domesticated species were of some use to human either as animal meat or any other purpose (iii) they were not too aggressive to cause harm to the persons domesticating them, and (iv) they could easily move from one place to the other with the groups keeping them under captivity. It has been suggested by some

scholars that the animals were also domesticated for using them for sacrificial purposes and evidence for it has come through their presence in graves.

To begin with most of the domesticated animals were herd animals. The main purpose of domestication must have been to get food reserve when hunting failed to deliver the need.

In several regions the dog was probably the first animal which was tamed and domesticated. It seems that during the late upper Palaeolithic certain species of wolf or wild dog were tamed and domesticated to help in tracking and hunting activity.

Pig was another early domesticated animal. Both dog and pig did not require any specific and elaborate food to be arranged. They could survive on the left over food of hunting gathering people. This includes the refuse of plant as well as animal food consumed by these people. The other three early domesticated species included sheep, goat and cattle. All three required vegetation available in the wild forests and grass lands. This included grasses and leaves of shrubs in the natural form. These species were of great advantage to the people domesticating them. The biggest gain was a reserve source of meat which was rich in protein. Besides their skin and hair were also significant value. Sandor Bokonyi has analyzed the available evidence about early domesticated animals. He considers them as five early Neolithic domesticated animals viz. dog, pig, sheep, goat and cattle. He feels that the earliest evidence of their domestication comes from West Asia due to (i) availability of all these species in this region (ii) specifically goat and a sheep could survive on fodder rich in cellulose thus providing meat from a food that could not be used by humans or dog and pig, they were small sized and posed no danger to humans and their undemanding feeding habits were valuable feature in the circumstances of primitive animal husbandry, (iii) in South West Asia wild forms of cereals were also present and their cultivation started at about the same time as animal domestication and the two processes went hand in hand.

The earliest evidence for the domestication of dog comes from north east Iraq around 14000 years ago. Possibly the earliest evidence for domesticated sheep is found in Zawi Chemi Shanidar from early 11<sup>th</sup> century BP. Ali Kosh has yielded definite proof of the domestication by about 9500 to 8750 years ago. Asiab and Ganj Dareh provide evidence of domestic goats from the 10<sup>th</sup> millennium BP as also Jericho and Alikosh. The evidence for the earliest domestic pig is found in Qala at Jaruso about



8750 years ago. The earliest domesticated cattle lived in Catal Huyuk, in Anatolia about 8400 years ago. This data suggest that by the middle of the 9<sup>th</sup> millennium BP all five domestic animal species had been acquired. However, goat and sheep out number all other species because of their capability to survive in all weather conditions and all types of wild vegetation found in plains and mountains. About the rapid spread of sheep and goat Wenke comments By 6000 BC there is evidence of domestic sheep and goats at sites all over South West Asia and even into Greece and southern Europe, and it appears that once domestication was well advanced, the spread of sheep and goat raising was very rapid. In every agricultural community there are hedgerows, thorny plants, clippings, and stubble that are perfectly acceptable to the rather indiscriminating sheep and goats, and these animals, with their heavy fleece, are well protected against the sun and heat of the Middle East. While cattle required rich pastures and pig needed more water and select food.

Donkey seems to have been domesticated in Egypt and Eastern Sahara around 7<sup>th</sup> century BP. They were mainly used as beast of burden to carry loads and draw carts. Later Arabia also seems to have adopted them. Domestication of camel is first reported from Eastern Sahara. Its breeding is confirmed in the second millennium BC. However, it was only towards the end of 1<sup>st</sup> millennium BC a new saddle was devised in North Arabia for its effective use. This saddle had a pommel and was placed on the animal's hump leaving the arms of the rider free. As a result the efficiency of camel warriors was significantly increased and they became a formidable military force. This development gave nomadism a new impetus and camel in the region played the same effective role as horse did in the Eurasian Steppes. In Arabia it proved of immense use with its capacity to carry loads, which was many times more than the ass, and could survive without water for days in high temperature regions of Arabia and Sahara desert travelling for miles.

Domestication of horse was the major breakthrough which completely changed the socio economic and political scenario of pastoral nomadic cultures. The evidence for domestication of horse and its breeding is available from the Eurasian steppes sometime before fourth millennium BC. According to one view it was domesticated in the 5<sup>th</sup> millennium BC in Ukraine and Kazakhstan. There are conflicting views about the use to which the domesticated horse was put to. According to one view they were first used as a draught animal and as food. While the second view suggests that they

were used for riding purpose and as draught animal only subsequently. But evidence for the use of wheeled carts is not available prior to 3<sup>rd</sup> millennium BC. At the same time we do not have evidence for the use of harness and saddle, which was crucial for effective riding of the horse before the 2<sup>nd</sup> millennium.

Notwithstanding the conflicting opinions about, its first usage for riding or draught animal, once effective riding was mastered it proved to be the most effective in managing and leading large herds of cattle. It also enhanced the mobility of the riders to travel long distances and equipped its users with a lot of attacking power. The horse was the single most important factor which helped the nomadic groups in establishing nomadic empires spread across vast regions.

Reindeers were domesticated and herding was practiced in the region of Siberia, i.e. Urianghai of the Altai Mountains. Yaks were similarly domesticated in the specific regions of high mountains in the region of Tibet. They were also herded in Mongolia, Manchuria, Sayan and Altai Mountains. In South East Asia dog, pig, fowl and duck were domesticated around 7000 years ago. Animal husbandry was brought to Europe by two succeeding waves of immigrants from Anatolia – the first reaching Greece through the Aegean and the second reaching Balkans through the Dardanelles and the Bosphorus. All the five domestic species of West Asia are found in Europe a little later. Sheep and goat were not natural fauna of Europe and did not have favourable conditions. In Greece they could adapt very well. Cattle and pig grew at a faster pace in all parts of Europe. Horse and ass also began to be domesticated and were used mainly as work animal. In southern Italy animal husbandry started in 7<sup>th</sup> millennium BP and Southern France around 6000 years ago.

Some bones have been discovered in excavations of fire pits in ancient kitchen. Though domestication of animals was probably common earlier, it is certain that goats and sheep were domesticated through out Asia by 8000 BC. Goats by 7000 BC, sheep by 6700 BC, and pigs by 6500 BC in Mesopotamia. By the time of the settlement of the first Mesopotamian city of Eridu in 5400 BC, animal husbandry was widely practiced and domesticated animals were used in the work force (such as in ploughing) as pets, and as a food source. Horses were tamed by 4000 BC and, in time, became an important component in warfare. Eventually, elephants were employed on the battlefield; Particularly in the Persian campaigns, the Indian resistance to Alexander the Great, and, most famously, by Hannibal of Carthage against the Romans.

The Middle East served as the source for many animals that could be domesticated, such as sheep, goats and pigs. This area was also the first region to domesticate the camel. Henri Fleisch discovered and termed the Shepherd Neolithic flint industry from the Bekaa Valley in Lebanon and suggested that it could have been used by the earliest nomadic shepherds. He dated this industry to the Epipaleolithic or Pre-Pottery Neolithic as it is evidently not Paleolithic, Mesolithic or even Pottery Neolithic. The presence of these animals gave the region a large advantage in cultural and economic development. As the climate in the Middle East changed and became drier, many of the farmers were forced to leave, taking their domesticated animals with them. It was this massive emigration from the Middle East that would later help distribute these animals to the rest of Afroeurasia. This emigration was mainly on an east-west axis of similar climates, as crops usually have a narrow optimal climatic range outside of which they cannot grow for reasons of light or rain changes. For instance, wheat does not normally grow in tropical climates, just like tropical crops such as bananas do not grow in colder climates. Some authors, like Jared Diamond, have postulated that this East-West axis is the main reason why plant and animal domestication spread so quickly from the Fertile Crescent to the rest of Eurasia and North Africa.

Domestication of animals produced a dramatic change in the way people lived. Civilizations which had relied on hunting and gathering as a means of substance now built permanent settlements and engaged in a pastoral existence relying on their cattle and crops. Once people realized that animals could be tamed, the creatures became incorporated into the most basic and widespread rituals of the culture. Worship of animals in Egypt is well known (most notably their reverence for the cat who symbolized the goddess of the hearth and home, Bastet) but many ancient cultures incorporated animal imagery into their religious icons and practices. Wild animals came to represent untamed forces in the universe (such as the lions of the goddess Inanna in Mesopotamia) while domesticated creatures symbolized comfort and security (for example, the dog in Greece and Rome). In India, according to the historian Durant, "There was no real gap between animals and men; animals as well as men had souls and souls were perpetually passing from men into animals and back again; all these species were woven into one infinite web of karma and reincarnation. The elephant, for example, became the God Ganesha, and was recognized as Shiva's son; he personified man's animal nature and, at the same time, his image served as a charm

against evil fortune. The domesticated animals came to symbolize order as opposed to the chaos of the untamed world.

Excavations of refuse dumps outside of the towns and cities in the region of Mesopotamia show a gradual decline in the number of wild gazelle bones after 7000 BCE (which, it has been suggested, shows a depletion of wild game) while the number of domesticated sheep and goat bones grow in number after the same year. This same pattern has been determined in China, India, and Egypt. Based upon the condition of the bones and, of course, the writings and art work of the cultures. Scholars have determined that these sheep and goats were domesticated, and not wild. It is thought that wild sheep and goats came to graze around human settlements in an attempt to escape from natural predators. In time, these animals grew increasingly tame and became an easily accessible source of food. This same process of the gradual taming of a wild animal by close association with human beings is also thought to have been the means by which dogs were domesticated and, initially, cats as well.

Animal husbandry reached its height, in the ancient world, in Egypt where cats and dogs were cared for as though they were part of the human family in which they lived. Mummies of cats and dogs have been discovered in tombs in Egypt and so deeply did the Egyptians feel for their cats. Herodotus tells us, that they would shave their eyebrows and form a funeral procession of mourning upon the death of one of these pets. A more dramatic illustration of the importance of cats, especially, but of other animals as well, is the famous battle of Pelusium in 525 BCE in which Cambyses II of Persia defeated the forces of Egypt by having his soldiers paint the image of the great cat goddess Bastet on their shields and, further, by driving the animals loved by the Egyptians before their front lines. The Egyptians, afraid of offending their gods by hurting the animals, surrendered their position and fled in a rout, during which most were massacred. In this way Cambyses II of Persia conquered Egypt and was so contemptuous of the Egyptians for preferring the safety of animals to their own freedom that he hurled cats into the faces of the Egyptians during his triumphal march after the battle.

Recent studies suggest that animal husbandry may have begun in Europe, rather than Asia or the Near East, through the domestication of "dog-like creatures" in the region now known as Germany. These studies, however, fail to take into account the evidence from the earlier regions and seem focused solely on domestication of wolves

or, more vaguely, a non-wolf canine which was not directly related to the dog. Evidence of wide-spread domestication in Mesopotamia, China, and India, however, argues for those regions as among the first to practice animal husbandry with Europe following the practice later.

When hunter-gathering began to be replaced by sedentary food production it became more profitable to keep animals close at hand. Therefore, it became necessary to bring animals permanently to their settlements, although in many cases there was a distinction between relatively sedentary farmers and nomadic herders. The animals' size, temperament, diet, mating patterns, and life span were factors in the desire and success in domesticating animals. Animals that provided milk, such as cows and goats, offered a source of protein that was renewable and therefore quite valuable. The animal's ability as a worker (for example ploughing or towing), as well as a food source, also had to be taken into account. Besides being a direct source of food, certain animals could provide leather, wool, hides, and fertilizer. Some of the earliest domesticated animals included dogs (East Asia, about 15,000 years ago), sheep, goats, cows, and pigs.

### **Changes in Dietary Pattern**

One of the first consequences of Neolithic way of life was a radical change in human diet. Whereas the Paleolithic diet was mainly meat-based, it became more and more diversified in the Mesolithic. Now, in the Neolithic, it was based primarily on cereals- wheat and corn in western Asia and Europe, rice in southern and eastern Asia, sorghum and millet in Africa, maize in America. The development of the food producing economics took place in two stages. The first saw some farming and herding of animals and bulk of the diet came from game and wild vegetable foods. The next stage came about 8000 years ago when more productive cereal grains and cattle, sheep, goats and pigs were completely domesticated. This created the fully agricultural and stock -raising economy that persisted into historic times, of course in more elaborate forms. The domestication of animals added an entirely new element in the diet: milk and its derivatives. The replacement of a meat diet with a largely vegetable one necessitated the use of salt which became an item of trade.

Numerous ruins of agricultural villages, similar to Jericho and more or less of the same age, have been discovered in north Syria, Iraq and Iran.

## Settlement Pattern

The domestication of plants and animals seemed to have brought about significant changes in the way people lived. A sedentary way of life was one of the main consequences of food production. When he took to agriculture, he soon found that it was not enough to plant seeds. The growing plants had to be tended. At the same time, man was no longer compelled to move from place to place to seek areas where game was plentiful. He could now keep large herds of cattle which he could always kill for food.

Agriculture, thus, paved the way for a settled life. The pattern of settlement changed over a period of time. The Neolithic way of life had considerable demographic consequences. Even in the absence of reliable figures or statistics it can be said that populations were increasing. In almost all the Neolithic cultures, the number and size of settlements and the number of cemeteries considerably increased in the Neolithic compared with earlier periods. Men started living in pit dwellings, mud houses and houses made of wooden posts with thatched roofs. The settlements were generally near the fields which the people cultivated. These settlements gradually developed into villages and even small fortified towns, which helped them to protect themselves and their animals from wild beasts. Settled life also led to the development of organized social life.

Neolithic culture which started in Asia spread much later to Europe. Much is known of developments in Europe from the Lake Dwellings of Switzerland, where houses were built close to the shores of the lakes and raised on piles when the water level rose. The remains of these dwellings are well preserved and give a clear picture of the life of the dwellers.

Excavations in Cayonu, Jericho and Jarmo and in the Mediterranean islands of Crete and Cyprus have revealed successive levels of occupation at the same sites. This had resulted in mounds and an increase in the circumference of the site. The Neolithic village of Jarmo was occupied more than 7000 years ago and measured approximately three to four acres. It was a cluster of about 24 houses built of baked mud. These were repaired and rebuilt on the same spot. Villages of mud-plastered walls, as in Jarmo and pavements of limestone cobbles and stone walls in Cayonu, hint at a somewhat elaborate village network.

Beidha (Jordan) reveals two types of settlement. It is easy to distinguish between the layers of Natufian open-air settlements which had living floors with post-holes and sunken hearths which suggest a temporary settlement. The settlements of the Yangshao culture in the Henan province in China go back to C. 7100 to 4900 years ago. Life had become sedentary and settlements measured from tens of thousands to a hundred thousand or more square metres. Some of the villages had defensive moats. The houses were either semi-subterranean or surface buildings of wooden constitutions. The remains of the houses show that the Yangshao culture had reached a high level of competence in house building.

### Two Neolithic Settlements: Jericho and Catal Huyuk

We can get good insight into the changes taking place in prehistoric human society by looking at the archaeological evidence from the Near Eastern settlement now known as Jericho. Jericho was located in the Levant, in a lush oasis in the Jordan River valley. It was first inhabited by Natufians around 11,000 -8500 B.C, and had a population of about 150-250 people. These people had stone blades and grinding stones (querns) used to cut and process grasses, and wild-animal bones found on the site show that they were also engaged in hunting. Each Natufian home, made of stone and mud brick, had its own storage pit. There seems to have been very little specialization of jobs, as almost everyone worked towards subsistence.

By 8500 BC, the people inhabiting Jericho seems to have transitioned from the sedentary hunter-gathers of the Natufian culture to a society based primarily on farming of barley and wheat, the most important crops in the Middle East. Between 8500 and 7300 BC Jericho grew rapidly, perhaps up to 1,500 people, thanks to the newly abundant food supplies. Notably, around 8000 BC a wall was built around Jericho with a tower, which represents early large-scale construction work. This wall and tower meant not only that people had enough time free from food production to accomplish this impressive task, but also that some sort of authority was able to organize and plan the endeavor. The settlement and wall continued to grow over time, until around 7300 BC, when Jericho was suddenly abandoned for unknown reasons.

Around the time Neolithic Jericho was being abandoned, another important city was just beginning to be populated – a site in Asia Minor (modern –day Turkey) called Catal Huyuk. It is the largest and best preserved Neolithic site known so far. It was occupied from about 7500 to 6000 BC. With intensive agriculture to feed the people living there, at its height Catal Huyuk had a population of around 5,000 to

8,000 inhabitants. These people lived in homes clustered together with shared walls, organized like a honeycomb. There were no streets- people used the roofs as streets and accessed the buildings through the ceilings by ladders. The homes reveal that some people must have owned more than one. Life in this early agricultural society seems to have been mostly egalitarian, but signs of developing inequalities are there.

Catal Huyuk also shows evidence of trade, and its people adopted specialized crafts. There were craftsmen who worked in obsidian and bone, as well as weavers and bread makers. Importantly, Catal Huyuk developed smaller satellite settlements devoted to farming, and these seem to have fed the population in the urban center. Wheat, almonds, peas, pistachios, fruit and domesticated sheep provided the residents with a diverse diet. The people still hunted animals, but their way of life was sustained by the food produced through agriculture.

Jericho and Catal Huyuk, when viewed together, give us a view of the changes in life from the time of the Natufian culture all the way down to the end of the Neolithic period. The archaeological investigations of these sites show how life changed from the sedentary communities based around intensive hunting and gathering to larger settlements based on small scale farming, to massive and complex early cities that were supported through intensive agriculture.

### **Appearance of Polished Stone Tools**

Neolithic tools are distinguished from the Palaeolithic chiefly on account of their higher utility and more skilful construction. And important tool of the Neolithic times was the polished stone celt. It was made of a large piece of fine-grained stone. One end of it was ground down and polished to sharpen the cutting edge. By fixing it into the end of a stick, it could be used as an axe. It was used to clear forests and as a hoe to till the land. It also enabled man to cut and shape timber, which led to the growth of carpentry. The knowledge of carpentry thus gained was to be used for making ploughs, wheels, plank boats, and wooden houses.

Another important tool of the Neolithic people was the sickle. This was made of a wooden handle into which blades of flint flakes were set. It was used to cut and gather the crop. There were, however, great improvements in the weapons of war and hunting. The bow and arrow continued to be used, although arrowheads were made sharper. In some areas, people used a new weapon, the sling. The Neolithic man also started making use of bone and antler for making tools like needles and harpoons.



## Invention of Pottery

To store and cook food, vessels were needed which could hold grains and liquids as well as stand heat. At the beginning of Neolithic times, baskets made of straw and twigs were used to store fruits and dry things. It may have so happened that such a basket fell into the fire by accident, with the result that the straw was burnt out while the layer of clay was left standing in the shape of a dish hardened by the fire. This dish of baked clay was found to be water-proof; the clay neither mixed with water nor was washed away. In this way, perhaps, man got the idea of making and baking pottery. Man became a creator. He could turn clay into stone.

These agricultural people who knew how to make baskets with round strips or ropes of fibre learned to make coiled pots. They coiled long, thin ropes of clay- well mixed with sand, powdered shells and chopped straw- as in the making of a basket. The coils were then pressed together and ridges smoothed out with wet hands and pebbles. These people soon learned to bake their pots in a very hot fire, above 600°C. This made them hard and more water proof. The invention of clay pottery is a characteristic of all Neolithic cultures.

Gradually Neolithic pottery became more sophisticated than the plain earthenware of the Mesolithic. It is important to note that clay was mixed with other materials such as sand or even organic materials to prevent excess shrinkage during drying to prevent the clay from breaking when it was fired. The early farmers seem to have been quite careful about the quality of the finished product. To facilitate the retention of liquids the potters of West Asia may have been the first ones to glaze the surface of the vessel or to burnish it with a stone. The method of burnishing had earlier been practiced to polish the floors and the wall of the early houses. A question frequently asked is how did the early agriculturists shape the vessel in the absence of the wheel? Perhaps this was done by initially making the base of the pot over some hemispherical objects and then they must have added rings of clay to provide the vessels a structure and height. The early pottery could have been either sun dried or fired in domestic hearth or a bonfire. We have no evidence of a furnace or a kiln specifically for this purpose at this early date.

## Spinning and Weaving

Among the remains of the earliest Neolithic villages in West Asia, we find the beginnings of a textile industry. Clothes woven of linen, cotton, and wool had started

Food  
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replacing skins and skirts of leaves. Cotton was grown in the Indus Valley soon after 3000 B.C. Wool was used in Iran about the same time. But, before textiles or woven cloth could be made, the two processes of spinning and weaving had to be invented and used together. The invention of the distaff and spindle for spinning, and of the loom, an elaborate machine for weaving, are great triumphs of human intelligence.

Cultivation and all the processes associated with it like clearing of forestland, turning over of the soil, sowing of seeds, harvesting, thrashing and grinding of cereals, required special tools. There had been some attempts in this direction during the Mesolithic. A digging stick and a hoe were some of the early tools used to prepare the ground for cultivation. While a hoe helped in turning over the soil, a digging stick was used to dig furrows in soil for planting seeds. Reaping knife and sickle helped in harvesting ripened plants. Cereals like wheat and barley had to be separated from the husk by threshing and winnowing, and then ground into flour. The grinding and pounding tools like mortars, querns and pestles had to be of tough stone.

### Social Structure

It is evident that the shift from hunting gathering to more scheduled food collecting techniques was backed by subtle changes in the social structure. A family as a unit of residence or working groups of men and women could have occupied the villages that emerged with early farming practices. As compared with hunter-gatherers, early agriculturists needed a more corporate social structure. There had been an increase in economic activities pursued in the Neolithic villages. In the Upper Palaeolithic there was but one specialist, the sorcerer-shaman, while all other members of the community shared the same activities: the making of tools and other artifacts, hunting, fishing and so on. In the Neolithic villages, on the other hand, a variety of activities like farming, stock-breeding, pottery-making, weaving, stone and metal work, carpentry etc. demanded a more rigorous division of labour among sexes and among different sections of people.

In Gordon Child's estimate, discovery of suitable plants and appropriate methods for their cultivation were tasks accomplished by women. In fact according to him, pottery-making and spinning and weaving and almost all the major inventions and discoveries were works of women. However, it is clear that the transition to agriculture was accompanied by dramatic changes in the economic and social roles of men and women. Working on the fields with a hoe (before the introduction of the plough),

pottery-making, weaving, tending to the animals, collecting ripened seeds, grinding flour and cooking, besides other kinds of household activities, came to be performed by women. In farming societies, the desire for more children to fuel the agricultural workforce, further added to the responsibilities shared by women. Clark Larsen's (1984) study has shown that men carried on hunting and fishing after the adoption of agriculture, perhaps at a more leisurely rate, whereas women took on the household chores.

The possibility of a storable surplus as in Jericho and Catal Huyuk must have gradually necessitated distribution and redistribution of land among individual families within the larger kinship organisation of the Neolithic societies. These families now sought facilities that were held jointly earlier. These developments encouraged competitiveness and a feeling of economic insecurity. As mentioned earlier, a stone wall surrounded the closely clustered houses in Jericho. A stone tower of some 8 meters in height was built outside the wall. This is considered world's first monumental architecture. A ditch was also cut into the bedrock outside the wall. None of these building activities would have been possible without supervision and control by a cohesive group. Besides Jericho in the PPNA stage, defensive walls came around villages in late Samarran phase (6th millennium BC.) in Iraq and in early Meso-America. In Merimde (Egypt) huts were arranged in regular rows along streets. Architectural traits such as these point towards some kind of an ordered community existence. In Catal Huyuk some of the structures were found to be larger and more elaborately equipped than others. This has given the impression that it had religious cult centres or shrines for the performance of ritual functions. )

The structure of the houses is in fact an indication of the social organisation of the individuals inhabiting these. The circular huts of the early period were small and could hardly be seen in the archaeological record between 11,000 and 8,500 BP. These houses built with thatched roof could be easily carried along. However, more rooms could be added to the rectangular houses of the later Neolithic period, for instance, in early Meso-America and West Asia between 9,000 and 7,500 BC. These houses could accommodate more members. They had wattle and daub (mud plastered) walls, which are a sign of permanence. The presence of individual storage-bins as compared with common granaries or storage-pits seen in villages with circular huts indicates the importance of families as social units. The multi-room rectangular residences of Jarmo for the period 6,750 to 6,000 B.C. show that some herding and farming families had

opted for large families that could assist in several different activities associated with agriculture.

### Belief System

The system of burying the dead provides some indication of the religious beliefs of the Neolithic people. The dead were buried with weapons, pottery, food and drink in their graves, in the belief that they would require these things even after death. Such graves are found in the Palaeolithic period also. Perhaps in the Neolithic period, there was a change in the significance of the graves. The earth now provided food for the community. The spirits of dead ancestors who lay under the earth were supposed to assist in the growth of crops.

There is also evidence of the belief in totems. A totem is the image of an animal or a plant as a symbol for a clan, or group of families living together. In early times people believed that animals and men had the same ancestor and that animals, by providing food for men were 'a friend or relative'. Even after man had taken to agriculture, his life was not entirely secure. There was always the danger of some catastrophe destroying his crops, livestock and game. These conditions of insecurity and man's inability to understand the processes of nature led to the belief that the welfare of the community was bound up with an animal and was completely dependent upon it. Such beliefs developed about trees and plants also. Man chose animals and trees to be their totems, their ancestors and protectors.

Every tribe had its own totem. It tried to keep on friendly terms with its totem, and the members of the tribe asked its totem for favours. The sun, the moon, stars, and other forces of nature were also believed to have special powers and man also tried to please them through worship. In course of time, this worship became elaborate rituals, an magic and religious beliefs tied the members of the community to one another. These and other similar beliefs expressed man's feeling of helplessness in the face of things he could not understand or explain.

Small clay figurines of women have been found in many Neolithic settlements in many parts of the world. These figurines are called 'mother goddesses'. When man began to cultivate the soil, the earth became the 'mother', and the figurines were worshipped in the belief that the fertility of land would increase. Music and art of the Neolithic people, like the cave art of Upper Palaeolithic man, were similarly related to the hopes and fears of man.

The burial places of some of the communities in Neolithic Age and of some in later periods were marked with megaliths, or large stones. Such places have been found in western Europe and south India. Some of these appear as single, huge standing stones; others look like tabletops set on several high stones or boulders. Under these table-like structures are chambers containing the dead. These megaliths in some places were also used for building a kind of temple to worship the sun-god at the time of summer solstice when the sun's power is at its greatest. One such structure is the famous Stonehenge in England. Here large stones were fitted to form a semi-circle, part of which was capped to form a doorway.

The story of man from the remotest past to the growth of settled life is a story of progress. The pace of progress was slow in the beginning but became quicker with the Neolithic Age. In the Palaeolithic period, man's central problem was how to keep himself alive. This problem, as with animals, took most of his time and effort. Yet, unlike animals, he could talk and make tools and, thus, took the first steps in his struggle to control his environment.

The pace of human progress quickened by about 8000 B.C. with the coming of the Neolithic Age. Man became a food-producer and could change nature to suit his ends. Several inventions followed to pave the way for the development of civilization. Man now produced his own food by growing cereals. He domesticated animals, made kiln-fired pottery, produced cloth and developed techniques for making polished stone tools. All this enabled him to lead a settled life in an organized community. The Neolithic village communities provided the basis for the emergence of civilization in Mesopotamia, Egypt, India and China.

### QUESTIONS

#### Objective-type questions :

1. What do you mean by Neolithic Age ?
2. Write few sentences on Neolithic tools.
3. What do you mean by fertile crescent ?
4. Write a short note on beginning of agriculture.
5. Write few lines on domestication of plants.
6. Describe in brief on domestication of animals.
7. What do you mean by animal husbandry ?

8. Explain the term 'Mixed Farming'.
9. What is the difference between old stone Age and New stone Age ?
10. Write a short note on Neolithic Art and craft.
11. Write a short note on settlement pattern of Neolithic man.
12. Describe in brief about the community life of Neolithic people.
13. Write a note on invention of pottery.
14. Give an account of religious beliefs of Neolithic people.
15. Write few sentences on food and occupation of Neolithic people.

**Long-type questions :**

1. How man was changed from hunter and food gatherer to food producer ?
2. Write a descriptive note on beginning of agriculture and animal husbandry.
3. Discuss in detail about life of the people during Neolithic Age.
4. What were the advances made by the Neolithic man over the Paleolithic man ?
5. Compare the life of the man in Neolithic age with that of Paleolithic age with special reference to his food, settlement pattern, tools, art and craft, and the discoveries he had made.
6. What are the main features of Neolithic period ?
7. Write a descriptive note on Neolithic culture.

