



FROM GATHERING TO GROWING FOOD

HISTORY

Growing crops and rearing animals together is called **agriculture**. The development of agriculture was not all of a sudden. Most of our food such as grains, vegetables, fruits, milk, etc. comes from plants that are grown and animals that are reared. But the hunter-gatherers (men and women) did not produce their own food.

The Beginning of Farming and Herding

About 12,000 years ago, the climate of the world was changing and so were plants and animals that people used as food. Animals as well as humans have certain instincts to distinguish between edible and nonedible plants. Their instincts basically work on the basis of **smell and look**. So men, women and children lived around the places where edible plants were found. They observed how seeds broke off stalks, fell on the ground and new plants sprouted from them. Some of these plants survived while others were eaten up by animals and birds or dried up. The seeds of the survived plants ripened in due course. In this way people learnt that they can grow seeds themselves. They started growing crops and protecting them from birds and animals so that they could grow and the seeds could ripen. Thus, people became **farmers**. This phase of progress started about 10,000 years ago, called the neolithic period.

Some animals like dogs ate the leftovers and were friendly to men, women and children. They played with these animals. These animals also followed them when they moved to another places. **The first animal to be tamed** was the wild ancestor of the dog. Later, people encouraged animals that were relatively gentle, to come near the camps where they lived. These animals such as sheep, goats, cattle and pigs lived and moved in large groups and most of them ate grass. People suckled their milk without being resisted. Often, people protected these animals from attacks by other wild animals like wolves. This is how early people became **herders**.



Taming the dog



Different Plants and Animals Need Different Climate

When early people became farmers and herders they also learnt the effect of climatic conditions on the growth of plants and animals. Different plants grow in different climatic conditions —rice, for example, requires more water than wheat and barley. So, people learnt to select the seeds to be sown suitable for the climate. They also found that it was easier to rear cattle in the plains while sheep and goats can survive more easily in dry, hilly environment.

Domestication

The process of growing plants and looking after animals by people is called domestication. It began about 10,000 years ago. Virtually all the plant and animal produce that we use as food today is a result of domestication. Wheat and barley are some of the earliest plants domesticated. The earliest domesticated animals include sheep and goat.

The plants and animals in the wild are prone to diseases. There may be many kinds of each, shorter or taller, weaker or stronger. People **select** best quality of plants and animals to grow and to rear. They select plants that yield large-size grains, and have strong stalks capable of bearing the weight of the ripe grains. They also care that these plants are not prone to diseases. Seeds from selected plants are preserved and sown to ensure that new plants (and seeds) will have the same qualities.

Similarly, people usually select animals that are relatively gentle but strong with good yield of milk. They also care that these animals are not prone to diseases. Breeding of such animals ensures that new animals will have the same qualities.

Thus, the plants and animals tended by people became different from wild plants and animals. These are called domesticated plants and domesticated animals. In this way we get the plants and animals of **desired** qualities.

Storing Grains

A seed takes months to years in growing to a plant or tree. So, people had to stay in the same place for the whole time looking after the plants—watering, weeding (removing wild plants which grow themselves in between), driving away animals and birds—till the grain ripens. All the grain produce cannot be eaten in a few weeks, it had to be stored for months or years till the next good crop. While storing the grain, it has to be protected from the pests and wet weather. So, early people started it keeping in **pits** which were dug into the ground and covered by stones. They began making **large clay pots** or weaving baskets. This development took hundreds of years.

Animals as a 'Store' of Food

Animals breed and multiply naturally. They are to be provided fodder, drinking water and shelter. The female animals provided milk which was an important source of food. People also killed male animals for

meat whenever required. In other words, the reared animals were 'store' of food. They also scraped hides from dead animals. The hides were used as clothes in winter.

Sites of the Early Farmers and Herders

Archaeologists have found different kinds of burnt grains and bones of different domesticated animals. Some of the most important sites are in the north-west and in east and south-India :

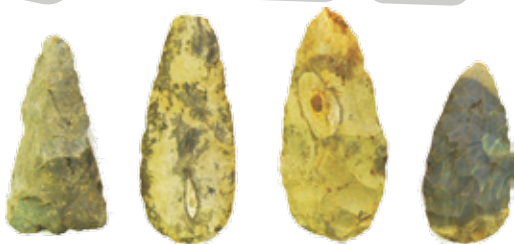
Grains and Bones	Sites
Wheat, barley, sheep, goat, cattle	Mehrgarh (in present day Pakistan)
Rice, fragments of animal bones	Koldihwa (in present day Uttar Pradesh)
Rice, cattle (hoof marks on clay surface)	Mahagara (in present day Uttar Pradesh)
Wheat and lentil	Gufkral (in present day Kashmir)
Wheat and lentil, dog, cattle, sheep, goat, buffalo	Burzahom (in present day Kashmir)
Wheat, green gram, barley, buffalo, ox	Chirand (in present day Bihar)
Millet, cattle, sheep, goat, pig	Hallur (in present day Andhra Pradesh)
Black gram, millet, sheep, pig	Paiyampalli (in present day Andhra Pradesh)

Settled Life

Huts or houses have been found at some sites. Many huts with common or shared walls have been found. In **Burzahom** (in present day Kashmir) people built **pit-houses** which were dug into the ground, with steps leading into them. These were the shelters from the cold or protection from the wild animals especially at night. Remember there were no caves in the plains. Living indoors, also gave man a new insight into family relationships and kinship, especially looking after children, the sick, and the aged. Man now began to cook food according to the seasons and changing weather. Staying indoors they could cook food more easily than staying outdoors. Archaeologists have also found cooking hearths both inside and outside the huts, i.e., near the outer walls. Depending on the weather, people could cook food either indoors or outdoors.

The Neolithic Revolution

Neolithic period means new stone age of new stone tools. These new tools were lighter, finer, sharper, pointed and tiny. Tools of neolithic period are different from the early palaeolithic tools which were comparatively blunt. The neolithic tools were polished to give a fine cutting edge. Mortars and pestles were used for grinding grain and



New stone tools (more pointed than of palaeolithic period)

other plant produce. Some of the new tools were also made of animal bones while others had wooden handles. The new stone age demanded new ways and new means of living by the people. The steady food supply from agriculture had enabled them to achieve these changes over a comparatively short period. Therefore, it is called neolithic revolution. However, tools of the palaeolithic type continued to be made and used for bulky rough work.



Jar to store grains

In the neolithic age, many kinds of earthen pots were made for storing grains and other things. They began to cook food in pots, especially grain like rice, wheat and lentils. They could carry cooked food in smaller pots to other places like the fields where they worked all day long. Gradually people came to know the use of plant fibres and growing cotton and hemp. Later they began weaving cloth from different kind of fibres.

People adopted farming and herding slowly, over several thousand years. But things do not change everywhere and all at once. In many areas, people still continued to hunt and gather food. However, at some places people combined farming and herding with hunting and gathering. They did different activities during different seasons.

Other Customs and Practices

One of the distinctive features of a village is that most people are engaged in food production. Neolithic villages had some customs and practices that eventually were followed by generations. The farmers and herders of the neolithic age lived in groups called tribes.

Tribes

Two to three generations of groups of families related to one another living together form a **tribe**. The members of the tribe follow the traditional customs, dress, etc. What makes tribes different from many other societies you will be studying about is that land, forests, grasslands and water are regarded as the wealth of the entire tribe, and everybody shares and uses these together.

- There are no sharp differences between the rich and the poor. But some men are regarded as
- leaders. They may be old and experienced, or young brave warriors, or priests.
- Old women are respected for their wisdom and experience.
- Members of a tribe engage in the occupations of hunting, gathering, farming, herding and fishing.
- Usually women do most of the agricultural work from preparing the ground, sowing the seed to
- threshing of the crop. They also grind the grain.
- Men usually lead large herds of animals in search of pasture.

- The cleaning of animals and milking is done by both men and women.
- Both men and women make pots, baskets, tools and huts. They also decorate their huts with leaves of trees and flowers, some of which are regarded as very sacred.
- Tribals have rich and unique cultural traditions, including their own language, stories, music and paintings.
- Tribals celebrate their own festivals. They have their own gods and goddesses.
- They have over the years developed their own forms of dance, drama, music and songs. Most of these dance forms are related to agricultural seasons.

When the early people settled at a place for farming and herding, they lived at the same place generation after generation. Over the years the flat land surface will gradually rise, because people discard waste material and generally stay and rebuild houses in the same place. After hundreds of years, this leads to the formation of a mound. In course of time, natural disasters such as earthquakes buried some portions or the entire settlement. Whenever this place is dug up, what is found from the upper layers is generally from a later time than the lower layers. These layers are often referred to as levels.

Case Study : Mehrgarh in the North-West

About 8,000 years ago settlement began at Mehrgarh. This site is located in a fertile plain, near the Bolan Pass, which is one of the most important routes into Iran. It is one of the earliest villages that we know about. **The earliest (lowest) level** at this site, revealed bones of some wild animals like deer and pig which belong to the period when domestication of animals had not begun. **In the later (upper) levels**, bones of sheep and goat, when animal domestication had started, have been found.

Still later levels revealed bones of cattle and Neolithic graves or burials called **Megaliths**. Huge stone boulders had been placed around the sites of these burials. Several burial sites have been found at Mehrgarh. In one instance, the dead body was buried with goats, besides the utensils and tools, the dead person used when alive. The goats were meant to serve as food in the next world. People believed that there is some form of life after death.

These findings prove that the people who lived in Mehrgarh were hunters to start with (bones of deer and pig). Herding became more important later (bones of sheep and goat). Houses in Mehrgarh were square or rectangular, having three or four compartments each.

Megaliths


In the Deccan, many burial sites were marked with huge blocks of stones called megaliths. These varied from a single standing stone to rock-cut chambers or a capstone balancing across upright stones



A burial from Mehrgarh (one human body)



A Megalithic Burial Site



marking the pit. Many pits often had a rectangular box made of stone slabs which contained things of daily use with the dead body. It was believed that the dead person would need them in the other world.

Case Study : Daojali Hading in the North-East

Daojali Hading is another Neolithic site on the hills near the Brahmaputra Valley close to the routes leading into China and Myanmar. Find it in the map (Fig.10.5). Stone tools including mortars and pestles have been found here. This reveals that people of that time were growing grains and prepared food from it. A stone, jadeite, seems to have been imported from China. Tools made of fossil wood and pottery are common finds at this site. Fossil wood is very ancient wood that has hardened into stone.

In Other Parts of the World

Catal Huyuk in Turkey is one of the most famous Neolithic sites. It belongs to the period 7000 to 6300 BC. The things found reveal that these were brought from great distances and used in the settlement. For example, flint from Syria, cowries from the Red Sea, shells from the Mediterranean Sea. And there were no means of land transport like carts existed. Perhaps, people carried these things on their own back or the backs of the pack animals such as cattle. Perhaps flint was used for making stone tools or igniting fire by friction of two stones. Cowries and shells were used for decoration, play and making garlands.



Key Words

- » Farmers : people who grew grains, vegetables and fruits.
- » Herders : people who herded large group of animals.
- » Domestication : taming of animals.
- » Neolithic : pertaining to new stone age.
- » Tribes : two to three generations of groups of families related to one another living together.
- » Burials : places where deadbodies were kept under ground.
- » Megaliths : huge stones placed at the burial site.
- » Jadeite : a hard bluish green precious stone.

SUMMARY

- ▶ About 10,000 years ago people learnt to grow crops and rear animals.
- ▶ Wheat and barley are some of the earliest plants domesticated. The earliest domesticated animals include sheep and goat.
- ▶ People stored grains in pits and pots.
- ▶ Animals were treated as 'store' of food.
- ▶ The new stone age demanded new ways and new means of living by the people. The steady food supply from agriculture had enabled them to achieve these changes over a comparatively short period.
- ▶ Members of a tribe engaged in the occupations of hunting, gathering, farming, herding and fishing.
- ▶ Mehrgarh in the north-west and Daojali Hading in the north-east are some of the important neolithic

Exercise Time

A. Tick (✓) the only correct choice amongst the following :

- The idea of cultivation occurred to man in :
 - Mesolithic age
 - Palaeolithic age
 - Neolithic age
 - none of these
- Which crop requires more water ?
 - Rice
 - Wheat
 - Barley
 - Millets
- Which animals survive more easily in the dry hilly environment ?
 - Camels
 - Sheep and goats
 - Cattle
 - none of these
- Domestication of plants and animals began about _____ years ago.
 - 2 million
 - 1 million
 - 12,000
 - 10,000
- In Burzahom (in present day Kashmir) people built :
 - stilt houses
 - boat houses
 - pit houses
 - none of these

B. Fill in the blanks :

- The first animal to be tamed was the wild ancestor of the _____.
- Neolithic man ate cereals such as and _____.
- Sheep and goats survive more easily in _____ hilly environment.
- In the neolithic age _____ was used to make tools.
- _____ is another neolithic site in the north-east near Brahmaputra Valley.

C. Match the following :

- | | |
|----------------------------------|------------------------|
| 1. 'Store' of food | a. storing grains |
| 2. Earliest domesticated crops | b. sheep and goats |
| 3. Earliest domesticated animals | c. lighter and sharper |
| 4. Large clay pots | d. animals |
| 5. Neolithic tools | e. wheat and barley |

D. Write true (T) or False (F) against the following statements in given brackets :


- People in Burzahom lived in rectangular houses.
- Man gathered food during the neolithic period.
- Cow was the first animal domesticated.
- The discovery of agriculture helped to make pottery.
- Jadeite found in Daojali Hading, may have been brought from China.

E. Answer in one word or one phrase :

- Which was the first animal to be tamed ?
- About how many years before, the domestication of plants and animals began ?
- Which animals survive more easily in the dry hilly environment ?
- Which precious stone was found at Daojali Hading ?
- In which age farming and herding began ?

F. Answer these questions briefly :

- Why do people who grow crops have to stay in the same place for a long time ?

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2. Which sites show that people living there ate rice ?
 3. What were domesticated animals used for ?
 4. Write about two changes in the life of early man during the Neolithic age.
 5. Name four different sites in different parts of India, where early farmers and herders lived.
 6. Why did man make progress in the New Stone Age in a shorter span of time ?

G. Answer these questions in detail :

1. Discuss three ways in which the lives of farmers and herders were different from that of hunter-gatherers.
2. How is growing plants and rearing animals different from their growth in the wild ?
3. Describe the customs and practices of the tribals.

PROJECT WORK

1. List the cereals and their forms that you eat.
2. Draw and sketch four neolithic tools.