The Birth of Agriculture

Since the Earth was first formed, there have been many periods, over its many millions and millions of years of life, when it has been covered with ice. Scientists think that the last Ice Age occurred about 15,000 years ago. Four thousand years after the ice retreated, the temperature over the Earth increased noticeably. The heat and lack of rain transformed the green lushness of north Africa into the Sahara Desert. The area of land which extends from Egypt to Palestine, from Syria to Turkey and from Iraq to Iran was slowly stripped of vegetation and dried up by drought. Animals became rarer and rarer and several species died out completely. The whole area which had once been the home of numerous tribes of hunters became a place where life was hard and the struggle for survival harder.

But as a result of the struggle a revolution took place, an 'Agricultural Revolution' during which man and woman made the land work for them.

THE END OF PREHISTORIC TIMES

During that long-ago period in the Middle East, hundreds of farmers gathered the wheat, irrigated the fields and put out to graze the animals which their ancestors had learned to raise and domesticate.

It was a very different type of life from that of the hunters about whom we have read in the last chapter.

Cultivating the land and raising animals meant that food was already available in the same place all the year round — spring, summer, autumn and winter. Men and women were no longer uncertain about having enough food for tomorrow — the wandering life of the hunters following and hunting herds of game had finally ended for most of the people in the world. True, in some areas, there were people who continued to follow the old ways; there still are, even today.

But now the tribes had established themselves near the cultivated fields, in villages. These groups of solidly-built huts gradually expanded into towns and many of the towns into cities.

The people living in the villages, towns and cities were often unified by the same type of work, by common traditions and, often, religious convictions. They spoke the same dialects and followed similar customs. They began to form together into true states, guided by and ruled over by strong centralised governments. It was the beginning of the end of prehistoric times.

Above: Both men and women worked in the fields, using quite advanced tools. The soil was broken up with ploughs, and the wheat was cut with bone and wooden scythes which had cutting edges, sharpened by flint. The women carried the crops to be stored, using baskets made from braided twigs. Right: Weaving was women's work. Here, two women make the thread, while a third uses it on her primitive loom.
Not everyone led this new way of life. Some people continued to follow the herds and to hunt — some people still do so.

**AGRICULTURAL TOOLS**

For thousands of years before the development of successful crop rearing, the only tool used by the farmers was a stick with a heavy-pointed stone head. They used it for digging up potatoes and other edible roots. It was almost definitely used when the first hand-sowing of seeds was done, but very soon after this the need for an implement that could cut into the soil was realised and soon the first plough had been invented. This was probably a simple branch that had been hardened over fire.

It took many hundreds of years before more complex agricultural tools were invented. Among these were the plough-share, the curved blade that turns the soil up and over, and the cross yoke, to which a pair of beasts could be harnessed to pull the plough.

**THE DOMESTICATION OF ANIMALS**

Before the Agricultural Revolution had happened, perhaps as long as 100,000 years before, the hunters had established a special relationship with one particular animal — the dog. Dogs became faithful guardians of the camp as well as valuable assistants in the hunt.

Prehistoric Man had somehow learned to tame the animal and to teach it to accept food and care if ever it was sick. So, the relationship was mutually advantageous. The dogs were well looked after and man acquired a valuable ally and companion. As generations passed, the pups that were born in captivity became tamer and tamer and more dependent on man to provide for them.

And then, someone must have said to himself, ‘If we can make dogs of such use to us, why can’t we do the same with other animals.’

Eventually, no doubt after much trial and error, it became possible to tame the herbivorous animals that were used to living in

**FROM WHEAT TO BREAD**

After wheat was harvested, the chaff was beaten with a stick in order to separate it from the grain. Part of the crop was conserved for seed and stored in granaries, which were often no more than large holes lined with clay. The rest was turned into flour by grinding it in a cup-shaped stone mortar with a pestle, or in a saddle-shaped mortar and using a sausage-shaped cylindrical stone for grinding.
flacks and therefore more willing to accept the authority of a leader. First the flock leader and later the herdsman and his dog asserted their authority over the flocks. Thus the first goats and sheep, and later pigs and cattle became part of the ever more varied ‘flock’ of man. But this was different from taming the dog; man was taming these grazing beasts to supply him with food and clothing. He was keeping them for slaughter. The flocks and herds would travel with the tribes, and as some were slaughtered, so they were replaced as young were constantly being born.

Only much later were domestic uses found for beasts of burden such as mules, camels and finally horses.

Many of the early domesticated animals were not just sources of meat, but also of milk which could be turned into cheese. Their skins provided leather and wool which became a useful material only when the loom (one of the most ingenious inventions ever) was devised.

A spiral wrapped clay pot, probably made by one of the women in the tribe.

FROM HARVESTER TO PRODUCER
From the time that man began to gain dominance over other animals, he became a simple, but intelligent, harvester of food, food that the Earth offered naturally—small animals, fish, berries and vegetables—But when he learned to breed animals and to cultivate the soil, he became an organised and efficient food producer.

Fresh meat became available according to need, not through lucky hunting. Wheat and barley were produced and could be stored for months. Milk and cheese were plentiful and fruit, vegetables and pulses were cultivated in well-irrigated fields, close to the primitive, but functional, dwellings. So, richer and more varied foods were to be had in greater quantities with less risk than before. There was enough food for the increasingly prosperous tribes.

SPECIALISATION INCREASES
Because food was more easily obtainable than before, and more people were employed in the fields and caring for the herds, the tribes could afford to maintain even more specialists than before. As we saw earlier, a few hunters could support one, maybe two toolmakers, but now even more non-food-producing workers could be supported.

These specialists were responsible for making the tools, weapons and agricultural equipment and were also responsible for spinning and weaving.

Now, when there is a large number of craftsmen working in a particular occupation, technical advances and new ways of working are often made very rapidly. The field in which most advances were made at this time (remember man was still ignorant of the use of metals; he was still using stone, bone and wood) was pottery.

Clay
For some time womenfolk of the ancient hunters had been moulding clay by hand. They had probably discovered completely by chance that clay could be shaped and hardened. Perhaps a piece of clay had fallen into a fire and whoever was tending the fire saw that the heat of the fire transformed the clay into a hard and waterproof material.

This was a discovery of fundamental importance; man was no longer using a basic material as it occurred naturally, he was changing the characteristics of the

Clay vases, decorated with geometric designs and patterns of the period.
The inside of the potter’s workshop shows advances made in technology.

THE FIRST CITIES
The first ‘clans’ were composed of just a few individuals. This was not a matter of choice, rather one of necessity. Only a small group of people moving about quickly following the hunt were able to survive. But with the development of organised farming and the growth of the specialised worker, with the ability to control fire, and the discovery that natural materials could be changed to suit man’s needs, things began to change. Groups of people who were concerned with animal husbandry continued their nomadic existence, moving their herds from place to place wherever there was enough water and grazing. When these ran out, the tribe moved on.

However, those concerned with farming were in a different position. The farmers learned to nourish and revitalise tired soil through regular fertilisation, so it was convenient for them to live close to the cultivated fields. Thus the fixed settlement was born. Villages developed where farmers, and the people that they supported, lived and worked. These villages were perhaps the most important aspect of the new agriculture. The people who lived there were willing to be organised, to live together under common laws which they all observed. They realised that to entrust power of judgement and government to one person, or to a group of people, was for the common good.

The agricultural revolution became an urban revolution. From this moment, the concept of nationality developed. Gradually, villages grew larger; previously nomadic tribes, gave up their wanderings and brought their animals to the agricultural villages, for they realised that there they would have constant water supplies, as well as good grazing. The villages became towns, and some of the towns became cities. Man, the country dweller, became man, the city dweller.

CONTAINERS
What kind of containers did prehistoric men and women use for cooking their food, heating their water and storing their surplus produce? First of all, leather was used. Animal skins were primitive stitched together to provide waterproof containers. Wooden pails were then made, and water and other liquids could be carried from source to heat. It was poured into naturally concave objects such as animal skulls, and heated. Food was also stored in leather and bone containers. A great advance was made when clay was used to line holes in the ground and create larders. Baskets made from woven twigs were also used as containers.