

REVOLUTIONARY CHANGES BROUGHT BY AGRICULTURE

Setting the Stage

For tens of thousands of years, generation after generation, humans had been gathering roots and plants to eat and scavenging and hunting for game. Imagine what happened once they realized what made plants grow and how to control the birth of babies and young animals. People in several areas across Afro-Eurasia began to settle down and raise food or follow a pastoral way of life centered on herding.

This dramatic breakthrough in human understanding probably began around 8000 B.C.E. in the hills of western Asia near the Zagros Mountains. Historians call these discoveries the start of the Agricultural Revolution because knowledge of agriculture and breeding animals resulted in numerous dramatic changes in how humans live. This knowledge also changed how men and women thought of themselves and their environment, and, as a result, they created new symbols and adopted new attitudes toward the land, animals, and one another.

Women were probably the first to realize that plants grew from seeds. While men were hunting, women foraged for food near their home bases, paying close attention to details of the landscape. Some must have noticed that plants they had gathered appeared at the same place the next year. Perhaps they wondered if there were any relationship between seeds they had dropped and new plants. Eventually someone must have experimented with putting seeds into the ground. Soon they realized they could control which plants grew. Gradually people discovered how to select hardier strains of grain and save the best seeds for planting. They also may have determined that ashes from fires helped make crops grow.

The other great breakthrough, learning how to breed animals, was closely related to domesticating animals, a process that spanned ten thousand years. Men probably domesticated reindeer and dogs first, then cows, sheep, pigs, and goats. These animals provided meat and

milk, and their skins could be used as clothing. Early humans used dogs to control other animals and for protection and experimentation with using larger animals to carry loads.

Perhaps men first figured out how animals bred. Communities must have tried to keep live animals around for food and sacrifices.

Men, watching over the animals, eventually must have realized what happened when animals mated. From that discovery they learned how to control the breeding of animals. (It is intriguing to speculate what happened to the status of women when men and women realized the role men play in procreation.)

Species	Domesticated (year BP)	Area
Reindeer	14 000	Northern Europe/Germany
Dog	11 500	Northern Iran
Goat	9 000	Middle East/Jordan
Sheep	8 000	Northern Iran/Jordan
Cattle	7 000	Europe
Donkey	5 500	Nile Valley
Buffalo	5 000	? India
Pig	5 000	Mesopotamia
Horse	5 000	Turkistan
Cat	5 000	Nile Valley
Silkworm	5 000	China
Bee	5 000	Nile Valley
Fowl	4 500	Indus Valley
Elephant	4 500	Asia
Onager	4 000	Indus Valley
Camel	4 000	Mesopotamia
		South Arabia

Earliest radio-carbon dates in BP (before the present) for domesticated animals.

People Settle Down and Farm

People who farm have to stay in one place, so the agricultural way of life transformed some nomadic and seminomadic gatherers and hunters into settled farmers. Men and women began to clear forests and plant crops. People stayed put at least until the soil became exhausted, so they started to build sturdier, more permanent homes out of wood, where it was available, or bricks made of dried mud, and eventually bricks fired in ovens. Women had the primary responsibility for constructing shelters for nomadic groups, and they probably also helped build permanent homes. Catal Huyuk, a 32-acre village settlement in Anatolia (present-day Turkey), is one of the best preserved early agricultural settlements.

Early farming communities were probable largely a woman's world. Men were responsible for looking after the animals and tending the herds and often hunted far away from their settlements. Women added farming to their other tasks, working in the fields with each other.

These early communities may have been both matrilineal (determining descent through the mother) and matrilocal (in which a married couple lives with the wife's family). In a matrilocal community the oldest women and their families owned the property. Children probably lost their carefree life as agriculture developed. Instead of just being responsible for finding food for themselves, they had to work on the land and learn to help grow food to feed others.

Surplus and Specialization

For many centuries these farming communities probably practiced subsistence farming, producing just enough for their own immediate needs. Almost everyone must have been involved in either raising food or tending animals. Gradually people developed better tools, including hoes to loosen the soil and make holes or furrows into which they could drop seeds. As people became experienced farmers, some communities began to produce a surplus and the population increased.

Surplus food led to specialization, another radical change from gathering and hunting times. Specialization means people perform particular jobs or roles in the community and requires cooperation. Individuals who do nonagricultural work need food, while farmers need the services of others, such as the blacksmith or priestess. Men probably specialized more than women, becoming millers, brewers, and traders, while women performed the numerous jobs associated

with the family and land.

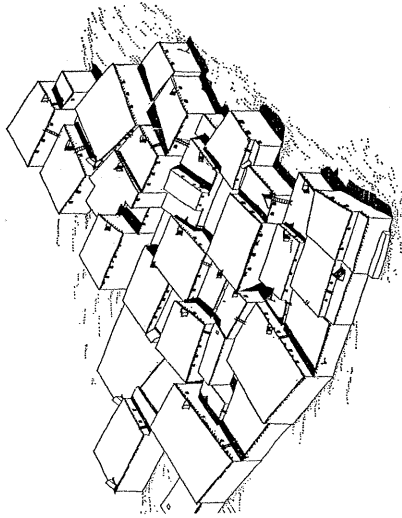
Women's activities revolved around three areas: the hearth, where they cooked and cared for small infants; the courtyard, the area in the middle of a home that was open to the sky where women carried out activities such as sewing, weaving, making baskets, pottery, jewelry, and cosmetics, teaching young boys and girls, and organizing social activities; and the field, where they gathered food, cleared, planted, cultivated, and harvested crops, found fuel for hearth fires, and collected building materials. Added to these functions were the full-time jobs of childbearing and raising the young. Women also had a special place in developing the musical tradition, singing together as they worked. Singing not only built a sense of solidarity but was also a way to pass on knowledge and wisdom to the young. Women also sang songs during public rituals and entertainment events, organized singing groups, and served as waiters at funerals.

Who Has the Most Prestige?

As greater specialization developed, so did social stratification, which involves ranking or classifying people according to status or prestige. There are several criteria by which people may be ranked. Perhaps, at first, people associated with the gods and goddesses had the most prestige. Priests or priestesses who knew how to please the divinities usually had a great deal of ritual or divine power. In hunting-gathering societies, as we have seen, a woman's ability to give birth resulted in a great deal of status. Women probably served the goddess, and some scholars suggest that the role of priestess was the only specialized work that women in these communities performed. If women were responsible for many of the religious ceremonies, men would have respected them even more.

Communities have to decide who will control the surplus and how they will divide it. Those who own the surplus are wealthier, so they often have greater status. Wealth in products such as food, animals, or jewelry serves as an important status marker. Possessing rare items not available locally would also add to an individual's status.

Land ownership is an important source of wealth, and people who control large areas of fertile land often have a great deal of status. Families and groups began owning sections of land, so boundaries became important. Individuals or families wanted to pass their land



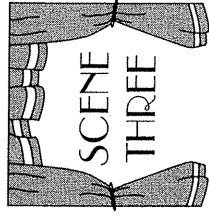
Catal Huyuk

down to their sons. To do this, men had to know who their sons were, and this may help explain why men began to keep tighter control over their wives. This notion of individual ownership of plots of land likely led to both patriarchal families (controlled by men) and lower status for women when men owned the land.

Political power is another source of status. Someone or some group has to ensure individuals do not hurt each other and that the community is safe from outside attack. As communities became bigger and people were no longer members of the same family or clan, they had to follow rules to prevent fighting among themselves, settling disagreements peacefully. Those who made the rules had a great deal of power. They could decide what to do with the surplus, how much people had to give to support the community, and who had to fight and when. Men who enforced those rules and supervised the collection, storage, and distribution of food also had a great deal of power.

Gradually and relatively peacefully powerful men who could enforce the rules and protect the goods assumed the responsibility for the community's well-being. No pictures from Neolithic times depict battle scenes, soldiers fighting, or heroic conquerors. Men are pictured spearing animals, but no pictures depict military weapons or fortifications. Art historians also have had difficulty finding any images of rulers.

After the first agricultural breakthrough in western Asia, farming began to be carried on in many different parts of the world. As people supported themselves by farming, their populations increased. Some villages supported the development of the first cities, and some grew into cities themselves. But before we turn to examine how cities developed, we must consider herding, the other way of life that started during this revolutionary period in the human drama.

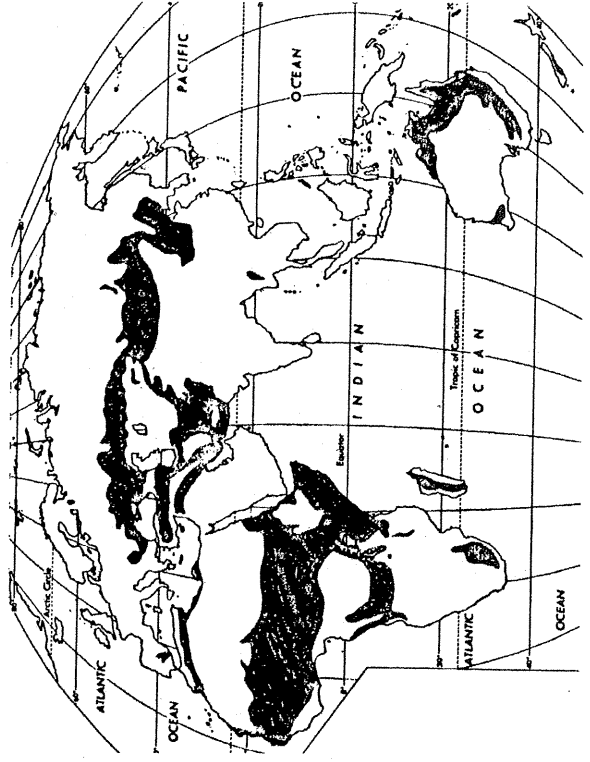


PASTORIALISM: AN ALTERNATIVE LIFESTYLE

Setting the Stage

Oh give me a home where the buffalo roam,
Where the deer and the antelope play,
Where seldom is heard, a discouraging word,
And the skies are not cloudy all day.

That's the cowboy song about "Home on the Range." His way of life began as part of the Agricultural Revolution. While many people were settling down and forming farming communities and villages, knowledge of how to breed animals enabled some to live by raising animals. Their way of life is called pastoralism. Pastoralists depend on their animals for survival, and they must find grassland so their animals can graze.



Steppes

Pastoralists lead a seminomadic life, maintaining home bases and periodically taking their herds to new grazing land. Their herding lifestyle is not a stage on the way to becoming farmers. It is a highly complicated way of life that has existed alongside agricultural communities from the time of the Agricultural Revolution to the present. Most pastoralists also hunt to supplement their diet, and, where geography permits, some do a little farming as well.

Geography largely defines where pastoralists can live. In areas such as Arabia and the steppes of Eurasia, rainfall is too sparse and the soil generally too poor to support agriculture. A tall feathery grass grows in the spring and summer months on the steppes, on which herds of sheep, goats, and cattle can graze. Inner Asia, the most extensive steppe, includes areas of the former Soviet Union plus Mongolia and parts of western China.

Indo-European and Semitic Pastoralists Depend on Their Herds and Flocks

Pastoralists in central and western Eurasia were called Indo-Europeans, and those in Arabia were known as Semites. Both Indo-Europeans and Semites had to figure out ways to survive on the scarce food these harsh environments provided. Early pastoralists struggled against wild animals, the threat of disease, hostile groups competing for the same pasturelands, and natural disasters, as well as challenging climates and little food.

Whether Semites or Indo-Europeans, herders' lives revolved around their animals, which were their source of food, clothing, shelter, transportation, wealth, and status. Pastoralists were almost like parasites living off their animals. Sheep and cattle, then horses, and eventually camels, provided meat and milk, which they fermented. ("Cattle" refers to cows, bulls, and oxen but is often used to indicate all domesticated herded or farm animals.) Women sewed animal skins into clothes. Sheep were used for their wool and their hides served as covers for shelters, and dogs provided protection and controlled other animals, but early pastoralists did not know how to harness cattle and horses to pull heavy loads or for transportation without choking them. Pastoralists also exchanged animals for other goods they needed.

Pastoralists living in inner Asia herded horses, cattle, sheep and

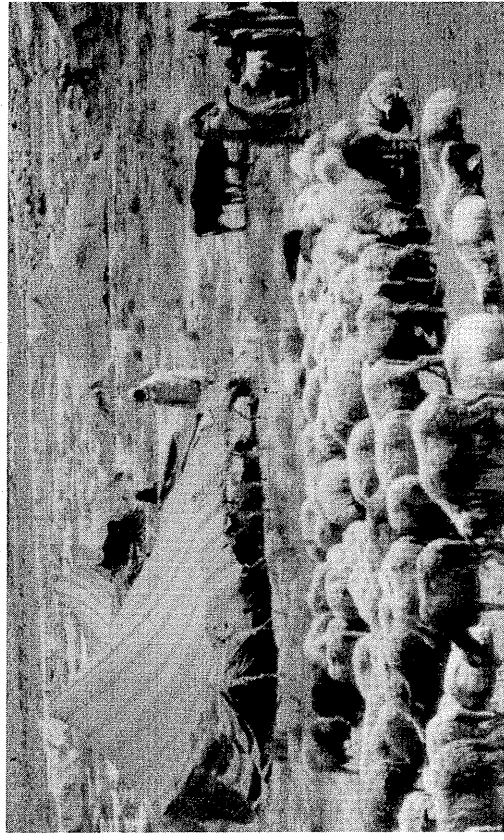
goats. Semites in Arabia mainly herded sheep. The number of animals a man had, particularly horses, not the land where they grazed, determined his status in the community. Nomads developed a deep affection for and intimate knowledge of their animals. Herders and their animals were inseparable. Hebrew herders claimed they could recognize their sheep and their sheep could recognize them.

Challenges of the Pastoralist Way of Life

Life for these early herders was difficult and dangerous, and they became skilled fighters. They fought other pastoralists for new grazing land and to keep the land on which their herds already grazed. They also raided each other's herds. The land, by and large, provided no natural defenses such as trees, hills, or mountains. Pastoralists became adept at both defensive and offensive fighting techniques and developed innovative military strategies and technologies.

Both men and women must have shared some of the qualities we still associate with masculinity, such as aggression and physical strength. They had to be ready to fight at a minute's notice, and they endured many hardships.

Hunting was important, particularly for Indo-European pastoralists. Animals they hunted provided extra food, so herders did not have



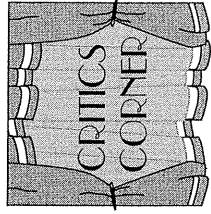
Nomad life

to kill off as many from their own stock. Hunting was good training for fighting as it involved tracking, marksmanship, and skilled shooting. In addition, pastoralists often treated the hunt as sport.

Young boys received strict training. A boy had to learn how to train dogs and falcons as well as the habits of animals and birds. He had to understand the unwritten science of animal breeding, be able to orient himself in the endless spaces of the great steppe by day or night using the stars, the sun, and landmarks, and know by sight not only his own cattle, but those of his neighbor. He would have to cut up the carcasses of domestic and wild animals, determine the area required to feed one animal in a 24-hour period, and calculate how long he could live at a chosen encampment. He had to know what to do in times of drought, heavy rainfall, or unforeseen epidemics; know what vegetation the cattle, sheep, and goats liked at different times of the year; and be able to plan migrations so that the animals would get the necessary food and mineral supplements. He had to identify signs of disease and possible herbs and other remedies; be able to treat wounds, including an animal's broken bones; forecast changes in the weather, floods and drought by the behavior of the animals; and recognize and read both animal and human tracks.

While men were responsible for herding, hunting, and fighting, women maintained the home bases. They hauled water and collected and dried dung (manure) for fuel, made cheese and other milk products, and sewed clothes, rugs, cushions, and coverings for their homes. Women took care of children and old people as well as small animals at the home base when men drove the animals to pasture. Except for times of war or extremes of weather, pastoral men probably had an easier life and more leisure time than women.

Between 8000 B.C.E. and 6000 B.C.E., settled agriculturist and pastoralist ways of life developed in many areas of Eurasia. Their interaction, to which we now turn, is one of the main themes of the human drama.



ACT ONE – ORIGINS OF THE HUMAN COMMUNITY: LEARNING TO COOPERATE (FROM EARLY TIMES TO 3500 B.C.E.)

Setting the Stage

1. Compare how the world came to be in any two creation stories.
2. What is the relationship between people and the rest of the natural world in creation stories?
3. What does “survival of the fittest” mean? How did mutations make early primates “more fit”?
4. How many races are there? What evidence do you have for your answer?
5. If there is only one race, why is there so much variation around the world in people’s skin color and appearance?
6. Do you believe in progress? If so, what do you mean by progress and what evidence can you offer to show that it exists?
7. How do you explain the origin of the world and how people came to be?

SCENE ONE

Gathering and Hunting: Humans Share the Resources

1. What is meant by Prehistory? What other name could you suggest for this period in the past?
2. Explain the differences between scavenging, gathering, and hunting for food. Why did early humans change from one way of getting food to another?
3. Why was learning to speak so important to early humans? Try to be around others and go without speaking for fifteen minutes. Explain your experience.
4. In what ways did early humans get and use fire?
5. What are the possible meanings of the cave paintings that early humans made? What do goddess figurines and drawings suggest about what early humans believed?
6. What did the tree represent to early humans? Why?
7. Why might early human males have looked on women with both awe and dread?

SCENE TWO

Revolutionary Changes Brought by Agriculture

1. What was the Agricultural Revolution? Why is it called a revolution? Do