The Neolithic Revolution

The transition of humans from nomadic hunters to city dwellers is a major turning point in history. Although the development of civilization was gradual, historians can pinpoint the beginning of this change. Because change is revolutionary when it requires a dramatic effort, this Neolithic Revolution was a revolutionary change.

The Neolithic Revolution

Civilization developed from the agricultural revolution of the Neolithic Age.

HISTORY & YOU  How did early American pioneers meet their basic needs? Read how the Neolithic farmers affected human progress.

GUIDE TO READING

The BIG Idea
Ideas, Beliefs, and Values
Systematic agriculture brought huge economic, political, and social changes for early humans.

Content Vocabulary
• systematic
  agriculture (p. 14)
• domestication (p. 14)
• artisan (p. 16)
• culture (p. 18)
• civilization (p. 18)
• monarch (p. 18)
• priest (p. 19)

Academic Vocabulary
• revolution (p. 14)
• role (p. 16)

People and Places
• Neolithic Revolution (p. 14)
• Mesoamericans (p. 15)
• Çatalhüyük (p. 16)
• Bronze Age (p. 16)
• Iron Age (p. 16)

Reading Strategy
Comparing and Contrasting As you read, create a chart like the one below to help you study.

1. 4.
2. 5.
3. 6.

The end of the last Ice Age, around 8000 B.C., was followed by what is called the Neolithic Revolution—that is, the revolution that occurred in the Neolithic Age, the period of human history from 8000 to 4000 B.C. The word Neolithic is Greek for “new stone.” The name New Stone Age, however, is somewhat misleading. The real change in the Neolithic Revolution was the shift from the hunting of animals and the gathering of food to the keeping of animals and the growing of food on a regular basis—which we call systematic agriculture.

Early humans had to move from place to place, following the herds and finding plants. During the Neolithic Age, humans began planting crops, providing a regular food source. Domestication of animals, adapting them for human use, added a reliable source of meat, milk, and wool. Animals could also be used to do work. Growing crops and taming food-producing animals caused an agricultural revolution. Because there was enough food, humans had more control over their lives. It also meant they could give up their nomadic ways of life and begin to live in settled communities. Some historians believe this revolution was the single most important development in human history.

This shift to food producing from hunting and gathering was not as sudden as was once believed. During the Mesolithic Age (“Middle Stone Age,” about 10,000 to 7000 B.C.) there was a gradual shift from the old food-gathering and hunting economy to a food-producing one. There was also a gradual taming of animals. Moreover, throughout the Neolithic period, hunting and gathering remained a way of life for many people around the world.
The Growing of Crops

Between 8000 and 5000 B.C., systematic agriculture developed in various parts of the world. In Southwest Asia, people began growing wheat and barley and domesticating pigs, cows, goats, and sheep by 8000 B.C. From there, farming spread into Southeastern Europe. By 4000 B.C., farming was well established in central Europe and the coastal regions of the Mediterranean Sea.

By 6000 B.C., the cultivation of wheat and barley had spread into the Nile Valley of Egypt. These crops soon spread up the Nile to other areas of Africa—Sudan and Ethiopia. In central Africa, a separate farming system emerged. There, people grew root crops called tubers, such as yams, and tree crops, such as bananas. Farming wheat and barley also moved eastward into India between 7000 and 5000 B.C.

By 5000 B.C., farmers in Southeast Asia were growing rice. From there, rice farming spread into southern China. By 6000 B.C., farming millet and domesticating dogs and pigs seem to have been established in northern China. In the Western Hemisphere, Mesoamericans—habitants of present-day Mexico and Central America—grew beans, squash, and maize. They also domesticated dogs and fowl in this period between 7000 and 5000 B.C.
Neolithic Farming Villages

Growing crops on a regular basis gave rise to more permanent settlements called Neolithic farming villages. These villages appeared in Europe, India, Egypt, China, and Mesoamerica. The oldest and biggest of these, however, were located in Southwest Asia. Jericho, in Palestine, near the Dead Sea, was in existence by 8000 B.C. Çatalhüyük (CHAH•tuhl hoo•YOOK) in modern Turkey was an even larger community covering 32 acres. Between 6700 and 5700 B.C., the city probably had about 6,000 inhabitants. Their simple mud brick houses were built so close together that there were few streets. People walked on the roofs and entered their homes through holes in the rooftops.

Archaeologists have found a dozen products that were grown outside the city walls, including fruits, nuts, and three kinds of wheat. Domesticated animals provided meat, milk, and hides. Scenes on the walls of the city’s ruins show that the people also hunted.

As a result of the steady food supply, people in Çatalhüyük had a food surplus. This meant people could enter other occupations than farming. Some people became artisans. These skilled workers made products such as weapons and jewelry and traded them with neighboring peoples. This exposed the people of Çatalhüyük to the wider world.

Besides homes, Çatalhüyük had special buildings that were shrines containing figures of gods and goddesses. Statues of women giving birth or nursing a child have also been found there. Both the shrines and the statues point to the growing role of religion in the lives of Neolithic peoples.

Neolithic Revolution—Effects

The Neolithic agricultural revolution caused dramatic changes that affected how people would live to the present day. Once people began settling in villages or towns, they saw the need to build walls for protection and storehouses for goods. Storing surplus products encouraged trade. Trading encouraged more people to learn crafts. This led to the division of labor.

As artisans became more skilled, they made more refined tools. Flint blades were used to make sickles and hoes for farming. Eventually, many of the food plants still in use today began to be cultivated. Some plants, such as flax and cotton, were used to make yarn and cloth.

The change to systematic agriculture also had consequences for how men and women related to one another. Men became more active in farming and herding animals, jobs that took them away from the settlement. Instead of the whole family moving as in earlier times, women remained behind. They cared for children, wove cloth for clothes, and did other tasks that kept them in one place. As men took on more and more responsibility for obtaining food and protecting the settlement, they began to play a more dominant role in society.

The End of the Neolithic Age

Between 4000 and 3000 B.C., new developments began to affect some Neolithic towns. Even before 4000 B.C., craftspeople discovered that by heating metal-bearing rocks they could turn the metal to liquid. The liquid metal could then be poured into molds, or casts, to make tools and weapons. The use of metals marked a new level of control over the environment.

Copper was the first metal to be used in making tools. After 4000 B.C., artisans in western Asia discovered that combining copper and tin created bronze—a metal harder and more durable than copper.

The widespread use of bronze led to the Bronze Age from around 3000 to 1200 B.C. After about 1000 B.C., the use of iron tools and weapons became common, an era known as the Iron Age.

The Neolithic Age set the stage for major changes to come. As people mastered farming, some villages developed more complex and wealthier societies. To protect their wealth they built armies and city walls. By the beginning of the Bronze Age, large numbers of people were concentrated in the river valleys of Mesopotamia, Egypt, India, and China. These farming villages led to the development of cities.

✓ Reading Check  Identifying What was the result of systematic agriculture?
The Neolithic Revolution was the beginning of systematic agriculture. This revolution was marked by the establishment and growth of farming villages such as Jericho. Located near a spring, which made the land especially fertile, Jericho was established by 8000 B.C. It was one of the largest Neolithic farming villages, with an estimated population over 1,000.

Jericho’s tower might have been used for storage or as a watchtower to protect the crops and animals.

Walls protected Jericho’s inhabitants.

Domesticated animals provided meat, wool, and milk.

Farmers used tools made out of stone and wood to harvest the crops they planted by hand.

1. **Drawing Conclusions** Based on the map, what patterns do you see with the spread of systematic agriculture?

2. **Making Connections** How did farming improve early human life?
Civilization Emerges

**Main Idea**
Some villages grew into cities and became early civilizations.

**HISTORY & YOU**
What characteristics make our society a civilization? Learn which features defined early civilizations.

Whether analyzing societies of the past or present, anthropologists describe the culture—the way of life—of a people in a certain time and place. From earliest times, humans lived in small nomadic groups with simple cultures that helped them survive. When humans settled in permanent villages, their cultures became more complex. Gradually, more complex cultures developed into a new form of human society called civilization.

A civilization is a complex culture in which large numbers of human beings who share a number of common elements. Historians have identified the basic characteristics of civilizations. Six of the most important characteristics are cities, government, religion, social structure, writing, and art.

**Cities**
The first civilizations developed in river valleys where people could carry on large-scale farming that was needed to feed a large population. As farming became abundant, more people would live in the city. New patterns of living soon emerged.

**Government**
Growing numbers of people, the need to maintain the food supply, and the need for defense soon led to the growth of governments. Governments organize and regulate human activity. They also provide for smooth interaction between individuals and groups. In the first civilizations, governments usually were led by monarchs—kings or queens who rule a kingdom—who organized armies to protect their populations and made laws to regulate their subjects’ lives.

**Religion**
Important religious developments also characterized the new urban civilizations.

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**HISTORY & ARTS**

**PRIMARY SOURCE**

**Bronze Age Artifacts**

Although these three artifacts were made during the same period, the Bronze Age, each is unique. They are different in origin, material, and subject. Each reveals valuable information about the civilization that created it.

- The Phaestos Disc, from around 1600 B.C., probably came from the Minoan civilization on Crete. The terra-cotta disc proves the existence of a written Minoan language, but no one has been able to translate the hieroglyphs.

- This terra-cotta jug, from around 1800 B.C., was in a tomb near the settlement of Jericho. Shaped like a bird, the jug is both functional and decorative.

- During China’s Shang dynasty, rulers had a monopoly on bronze work. This gilded bronze head could be the image of a king or a god. Created about 1200 B.C., the head was found in a pit with more than 50 similar artifacts.

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**DOCUMENT-BASED QUESTIONS**

1. **Concluding** What does the presence of artwork say about a culture?
2. **Theorizing** Why might the jug and bronze head have been buried in tombs or pits?
All of them developed religions to explain the forces of nature and their roles in the world. They believed that gods and goddesses were important to the community’s success. To win their favor, priests supervised rituals aimed at pleasing them. This gave the priests special power and made them very important people. Rulers also claimed that their power was based on divine approval, and some rulers claimed to be divine.

Social Structure

A new social structure based on economic power also arose. Rulers and an upper class of priests, government officials, and warriors dominated society. Below this class was a large group of free people—farmers, artisans, and craftspeople. At the bottom was a slave class. The demand of the upper class for luxury items, such as jewelry and pottery, encouraged artisans and craftspeople to create new products. As urban populations exported finished goods to neighboring populations in exchange for raw materials, organized trade began to grow. Because trade brought new civilizations into contact with one another, it often led to the transfer of new technology, such as metals for tools and new farming techniques, from one region to another.

By and large, however, the early river valley civilizations developed independently. Each one was based on developments connected to the agricultural revolution of the Neolithic Age and the cities that this revolution helped to produce. Taken together, the civilizations of Mesopotamia, Egypt, India, and China constituted nothing less than a revolutionary stage in the growth of human society.

Writing

Writing was an important feature in the life of these new civilizations. Above all, rulers, priests, merchants, and artisans used writing to keep accurate records. Of course, not all civilizations depended on writing to keep records. The Inca in Peru (see Chapter 11), for example, relied on well-trained memory experts to keep track of their important matters. Eventually, the earliest civilizations used writing for creative expression as well as for record keeping. This produced the world’s first works of literature.

Art

Significant artistic activity was another feature of the new civilizations. Architects built temples and pyramids as places for worship or sacrifice, or for the burial of kings and other important people. Painters and sculptors portrayed stories of nature. They also provided depictions of the rulers and gods they worshiped.
Early humans learn to make tools and fire.

- Tools make hunting easier.
- Early humans become more efficient hunters.
- Cooking food over fire improves nutrition.
- Fire keeps humans warm in cooler climates.

After the Ice Age ends, temperatures rise and humans begin to practice systematic agriculture—the keeping of animals and the growing of food on a regular basis.

- A steady food supply leads humans to settle in farming villages.
- Surplus food is stored.
- The villagers and food supply must be protected.

Civilizations begin to develop in river valleys in Mesopotamia, Egypt, India, and China.

- Governments develop to organize and protect the cities.
- Not all villagers are needed for farming, so some become artisans, government workers, priests, artists, and scribes.
- Division of labor leads to a social structure.
- Surplus food and products are traded with other settlements.