Chapter 1: The Earliest Human Societies: 1-4 The Neolithic Age: Agriculture and Livestock Breeding
Book Title: World Civilizations
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1-4 The Neolithic Age: Agriculture and Livestock Breeding

Although the Paleolithic era witnessed notable developments, it was in the **Neolithic Age** (The time when humans went from being nomadic food hunters and gatherers to producing food for themselves by domesticating wild plants and animals, c. 10,000–2,000 B.C.E.) (meaning “New Stone” Age) that humans made the breakthrough to more complex forms of social organization. As we saw, Paleolithic groups were essentially nomadic. Before about 800,000 years ago, they were scavengers. In the later Paleolithic, they depended more on hunting and gathering wild plants and animals for food. These hunter-gatherers had a mobile life. They moved with the seasons and the migration of the animals they hunted; therefore they had no reason to attempt to settle down and every reason not to. In the **Holocene era** (The period in archeology and climatology that came after c. 10,000 B.C.E. and the last Ice Age.) (a geologic age beginning about 12,000 B.C.E. to the present), the world experienced a dramatic shift to a generally warmer and somewhat drier climate. As conditions became drier, human groups were forced to settle near surviving bodies of water and to adopt methods for producing, rather than hunting and foraging for, their food. The gradual adoption of agriculture demanded more sedentary, or settled, ways of life. Moreover, even societies that lived primarily as nomadic pastoralists typically migrated within regions that included only waterholes and pasturelands they claimed against those of other societies.

The beginning of humans’ ability to grow or breed their food is called the **Neolithic (food-producing) Revolution** ((c. 10,000–3000 B.C.E.) The substitution of farming for hunting-gathering as the primary source of food for a given people.) . However, we know that if this was a revolution, it was a very slow one. Most peoples took about five to ten generations (two to four hundred years) to complete it. Gathering and hunting as the primary ways to acquire food gradually gave way to livestock breeding and herding, sowing and harvesting, and sometimes fishing. Usually, such domesticated ways of obtaining food continued to go hand in hand with hunting for a long, long time. Some members of the group would hunt while others raised some form of grain from wild grasses—the usual form of agriculture—or raised domesticated livestock. When plant and animal husbandry became the primary ways of getting something to eat, the Neolithic Revolution was complete for that group. Throughout this book we will watch traditional beliefs and lifestyles give way, however grudgingly, to the challenges brought forth by changes in the natural or the man-made environments. The Neolithic Revolution was one of the vastest of such changes. The Framing History: Science & Technology features will provide a perspective on others.

With such a slow transition, is *revolution* an appropriate word to describe the adoption of food production? Archaeologists now know that humans were managing their environments in ways that included limited stockbreeding and plant growing long before the appearance of

the settled ways of life commonly associated with the Neolithic Revolution. Therefore, what actually was “revolutionary” was not the transition to growing and breeding their food sources, but rather *the dramatic series of changes in human societies* that resulted from this changeover.

First, it often—but not always, in cases in which people had to rely principally on herding livestock—meant that people settled down in permanent locations. To be near the area used for cultivation, people settled in villages and then in towns, where they lived and worked in many new, specialized occupations that were unknown to pre-Neolithic society. These settlements could not depend on the luck of hunting or fishing or on sporadic harvests of wild seeds and berries to supply their daily needs. Only regularized habits of farming and herding could support the specialists who populated the towns, and only intensive methods could produce the dependable surplus of food that was necessary to allow the population to grow. Of course, occasional years of famine still occurred. But the lean years were far less frequent than when people depended on hunting-gathering for sustenance. Thus, one major result of the food-producing revolution was a steadily *expanding population* that thrived primarily in *permanent or semipermanent settlements*.

Second, food production was the force behind creating the concept of *privately owned property*—land, livestock, and sources of water. Until farming and livestock breeding became common, there was no concept of private property; land, water, game, and fish belonged to all who needed them. But once a group had labored hard to establish a productive farm and grazing rights to land, they wanted permanent possession. After all, they had to clear the land, supply water at the right time, and organize labor for preparing the soil, planting, weeding, and harvesting or for tending their livestock. Who would do that if they had no assurance that next year, and the next, the land or pastures would still be theirs?

Third, food production necessitated the development of *systematized regulation* to enforce the rights of one party over those of another when disputes arose over access and use of resources, including land and water. Codes of law, enforced by organized authority (or government officials), were important results of the introduction of agriculture and animal husbandry. The function of law is to govern relations between individuals and groups so that security is established and the welfare of all is promoted. Law and the exercise of lawful authority is one of the recurrent themes in this book, and we investigate it in the Framing History: Law & Government features.

A fourth change was the increasing *specialization of labor*. It made no sense for a Neolithic farmer or livestock breeder to try to be a soldier or carpenter as well as a food producer. Efforts were more productive for the entire community if people specialized; the same principle applied to the carpenter and the soldier, who were not expected to grow or breed the food supply.

Modern Hunter-Gatherer.

This hunter-gatherer in Namibia, southern Africa, takes aim at his quarry. His Khoisan kin are some of the last of the world's hunting-gathering folk. They range the Kalahari Desert much as their ancient forebears did.

Joy Tessman/National Geographic Creative

Some believe that agriculture also led to an *enlarged public role for women* in Neolithic societies based on farming—apparently a direct result of the fact that the first farmers were probably women. There is even some evidence of **matriarchy** (A society in which females are dominant socially and politically.) (female social and political dominance) in Neolithic China, the Near East, and West Africa, as well as among many Native American societies. The association of women with fertility, personified in a whole series of Earth Mother goddesses in various cultures, was certainly related to this development. As those who brought forth life, many Neolithic societies viewed women as the key to ensuring that the Earth Mother would respond to the villagers' prayers for food from her womb. In many areas where agriculture became important, fertility-centered religious rituals, female priestesses, and graphic reenactments of human reproduction were crucial components of cults intended to promote human, animal, and plant fertility. Changes in religious belief and practice carry the widest-ranging consequences for any society, ancient or modern. Often, they have manifested in the concepts of good and bad that dictated public and private behavior patterns, or morality. We will observe many such changes as we progress through this world history, and the Framing History: Patterns of Belief features.

Generally, most of us who live in the modern world think of the Neolithic Revolution and the changes it wrought in positive terms, as an inevitable series of changes that led straight to "civilization" as we know it. But were such developments always one way? Actually, there are instances in world history where hunter-gatherers adopted breeding or growing their food supply, then later abandoned it. Some Khoi-khoi–speaking groups in southern Africa,

for example, fluctuated between lifeways of hunting and gathering sometimes and cattle herding at other times. Pastoralists like the Turks and the Mongols of Central Asia stoutly resisted incorporation into the farm-based societies they conquered in the fifth and thirteenth centuries, respectively.

The adoption of food-producing lifeways brought significantly harmful consequences for humans. As humans domesticated and lived closer to their livestock, diseases jumped from animals to people. Once this happened, disease-bearing vectors more easily spread through entire societies (and later regions, and now the world) as people lived in ever-larger communities. And, while people were generally better fed, their quality of life and health often declined. Consequently, death came for them at a younger age.

Alterations in lifestyle came about gradually, of course, as a group learned to depend on domesticated crops and animals for its main sources of food. The timing of those changes varied sharply from one continent or region to the next. In a few places, it has still not occurred. Even today, a few nomadic hunter-gatherer groups can be found in regions that are useless for crop growing or animal grazing, although they are fast disappearing because of the intrusions of modern communications and technology.

Where were the first food-producing societies? For many years, researchers believed that agriculture must have emerged first in a region of the Near East called the *Fertile Crescent*. By 7000 B.C.E., agriculture and livestock breeding had appeared in at least seven separate areas, independent of outside influences: the Near East, Central America, South America, northern China, southern China and Southeast Asia, northeast Africa, and West Africa.

About the same time or slightly later, the first domesticated animals were being raised. The raising of pigs, sheep, cattle, camels, goats, guinea fowl, dogs, and turkeys for food and work goes back at least as far as 4000 B.C.E. (The horse and donkey come considerably later, as we shall see.) Map 1.2 shows where some common plant and animal species were first cultivated or domesticated.

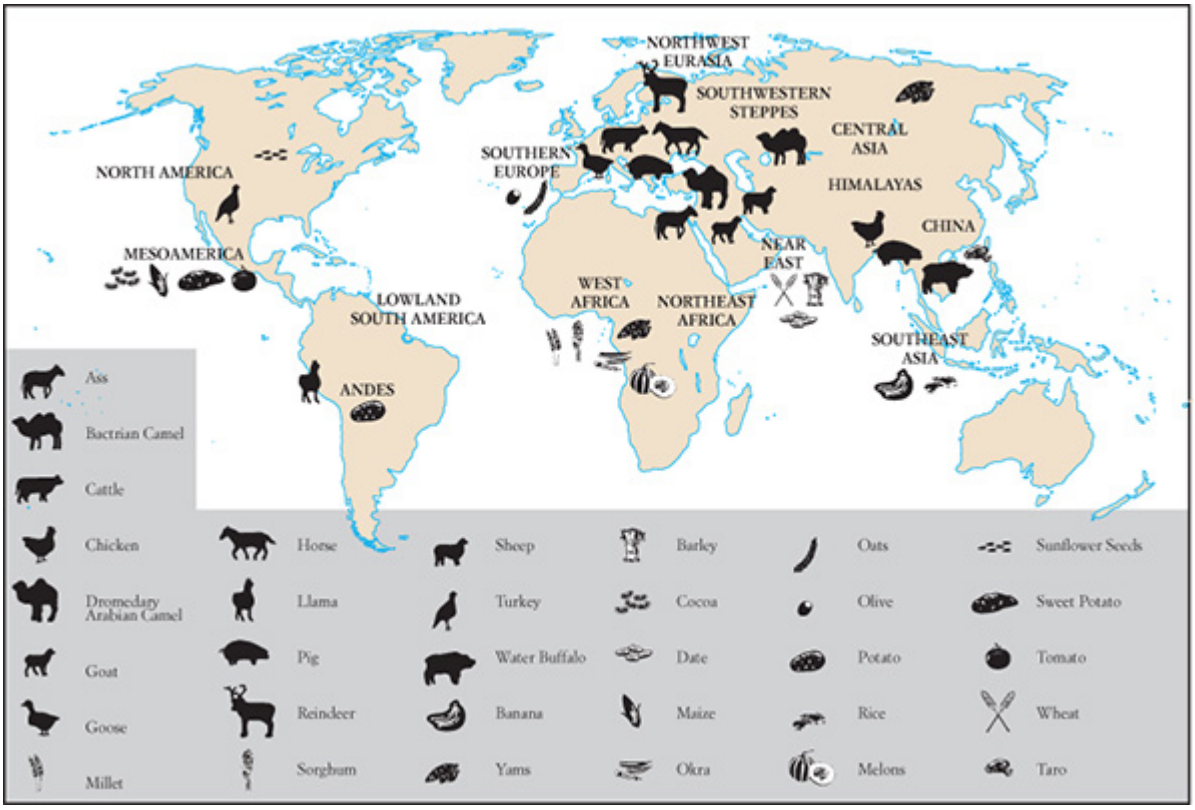
Map 1.2

Origin of Crops and Domestic Animals

This map shows where particular plant and animal species were first cultivated or domesticated. In the case of some species (for example, the pig), there seems to have been independent development in different areas. In most cases, however, the contact between neighboring cultures facilitated the rapid rise of plant and animal cultivation around the globe.

Thinking About This Map

> Did these plant and animal domestications arise independently in different areas, or did they appear by diffusion?



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