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Prehistory and the Birth of Civilization: People and Nature

Whether one believes that the beginnings of life were divinely generated or came about spontaneously, it is clear that human beings emerged as part of a long evolutionary process. The story of human evolution is a record of the behavioral adaptation of human beings to our surroundings. It is the last chapter in a long history that begins with the simplest forms of life that lived in the primeval seas hundreds of millions of years ago and culminates in the astonishing achievements of modern human beings. Throughout our short history on this planet, human beings have faced the challenges of the environment and of an often hostile geography and a threatening climate. Meeting such environmental challenges was the primary occupation of the earliest inhabitants.

Prehistory

The study of history before the appearance of written records, a discipline that originated in France around 1860, is called **prehistory**. In the absence of written records, prehistorians draw on the disciplines of geology, paleontology, anthropology, archeology, and ethnography. Each of these disciplines provides a unique kind of information about the past. Using instruments that measure the radioactive atoms remaining in the organic elements of the earth's strata, geologists are able to determine the approximate age of the earth. They estimate that our planet is about 4.5 billion years old. Paleontologists examine fossil remains and describe the nature of earth's earliest living creatures. Anthropologists study human biology, society, and cultural practices throughout all times and places: archeologists uncover, analyze, and interpret the material remains of past societies in order to determine how such people lived. Finally, a special group of cultural anthropologists known as ethnographers study surviving, preliterate societies. All of these specialists contribute to producing a detailed picture of human-kind's first environment.

Geologists report that the earliest organic remains in the earth's strata are almost four billion years old. From one-celled organisms that inhabited the watery terrain of the ancient planet, higher forms of life evolved. Some hundred million years ago, dinosaurs stalked the earth, becoming extinct possibly because they failed to adapt to climatic changes. Eighty million years ago, mammals roamed the earth, and although even approximate dates are much disputed, it is generally agreed that between five million and ten million years ago, ancestral humans first appeared in eastern and southern Africa. The exact genealogy of human-kind is still a matter of intense debate. However, in the last fifty years, anthropologists have clarified some aspects of the relationship between human beings and earlier primates – the group of mammals that today includes monkeys, apes, and human beings. Fossil evidence reveals structural similarities between human beings and chimpanzees (and other apes); and biochemical research indicates that human beings and chimpanzees share genetic similarities and identical hemoglobin.

Paleolithic ("Old Stone Age") Culture* (ca. 5 million – 10,000 B.C.E.**)

Early in the twentieth century, anthropologists discovered the fossil remains of hominids, protohuman creatures who walked the earth some five or more million years ago. Hominids lived in packs; they gathered seeds, berries, wild fruits, and vegetables, and possibly even hunted the beasts of the African savannas. Between two and three million years ago, a South African variety of hominid known as *Australopithecus*

*The terms Paleolithic and Neolithic do not describe uniform time periods, but, rather, cultures that appeared at different times in different parts of the world.

**Dates are designated as B.C.E., "Before the Christian (or Common) Era," or C.E., "Christian (or Common) Era."

were using sharp-edged pebbles for chopping and skinning. *Australopithecus* flourished for three million years with very little change, but eventually early human beings with larger brain cavities and greater locomotive abilities emerged. These creatures, of the genus *Homo* and the species *habilis* (thus “tool-making human”), fashioned stone and bone tools to serve specific purposes. Tool making represents the beginning of culture, which, in its most basic sense, proceeds from the manipulation of nature. The making of tools – humankind’s earliest technology – constitutes the primary act of extending control over nature and the most basic example of problem-solving behavior.

Approximately 1.7 million years ago, *Homo erectus* (“upright human”) was making tools that were more varied and efficient than those used by earlier human beings. These included hand-axes, cleavers, chisels, and a wide variety of choppers. The hand-axe became the standard tool for chopping, digging, cutting, and scraping. Fire, too, became an important part of the early culture of humankind, providing safety, warmth, and a means of cooking food. Although it is still not certain how long ago fire was used, *Homo erectus* sites outside of Africa suggest that fire was a regular feature in the hearths of caves in Europe and East Asia. Some one hundred thousand years ago, a group of human ancestors with anatomical features and brain-size similar to our own appeared in the Neander Valley in Düsseldorf, Germany. The burial of human dead among Neanderthal folk and the practice of including tools, weapons, and flowers in a number of Neanderthal graves are evidence of self-conscious, symbol-making humans known as *Homo sapiens*. Characterized by memory and foresight, these archaic forerunners of modern-day humans were the first to demonstrate – by their ritual treatment of the deceased – a self-conscious concern with human mortality. That concern may have involved respect for or fear of the dead and the anticipation of life after death.

The development of the human brain in both size and complexity was integral to the evolution of *Homo sapiens*: Over millions of years, the average brain size of the human being grew to roughly three times the size of the gorilla’s. Equally critical were changes that included the growth of more complex motor capacities. Gradually, verbal methods of communication complemented the nonverbal ones shared by animals and protohumans. We do not know at what point speech replaced more primitive sound codes, but over a process of time our prehistoric ancestors came to use spoken language to objectify experience and transmit patterns of culture for use in future generations. Capable of communicating abstract concepts to others by means of language, *Homo sapiens* distinguished themselves from other primates. Chimpanzees are

capable of binding two poles together to gather a bunch of bananas hanging at the top of a tree, but, short of immediate physical demonstration, they have no means of passing on this technique to subsequent generations of chimpanzees. *Homo sapiens*, on the other hand, have produced symbol systems that enable them to transmit culture. Thus, in the fullest sense, culture requires both the manipulation of nature and the formulation of a symbolic language for its transmission.

Paleolithic culture evolved during a period of climatic fluctuation called the Ice Age. Between roughly three million and ten thousand years ago, at least four large glacial advances covered the area north of the equator. As hunters and gatherers, Paleolithic people were forced to either migrate or to adapt to changing climatic conditions. Ultimately, the ingenuity and imagination of *Homo sapiens* were responsible for the fact that they fared better than other creatures, many of whom became extinct during this era.

Early modern humans devised an extensive technology of stone and bone tools and weapons that increased their comfort, safety, and, almost certainly their confidence. A seven-foot stone-tipped spear enabled a hunter to attack an animal at a distance of six or more yards. Other spear-throwing devices increased the leverage of the arm and thus doubled that range. Spears and harpoons, and – toward the end of the Ice Age – bows and arrows, extended the efficacy and safety of Paleolithic people, just as axes and knives enhanced their food-preparing abilities.

During the last fifty years, archeologists have discovered paintings and carvings on the walls of caves and the surfaces of rocks at Paleolithic sites in Europe, Africa, Australia, and North America. Over one hundred cave dwellings in southwestern France include paintings that reveal a high degree of artistic and technical sophistication. Executed ten to thirty thousand years ago, these images provide a visual record of such long-extinct animals as the hairy mammoth and the woolly rhinoceros; but equally important, they document the culture of a hunting people. Colored with earth pigments and shaded with bitumen and burnt coal, the realistically-depicted animals are often shown wounded by spears and lances (Figure 1.1). What was the purpose and function of these vivid images, often drawn one over another, with no apparent regard for clarity or composition? Located in the most inaccessible regions of the caves, it is unlikely that they were intended as decorations or even as records of the hunt. It seems likely that, like tools and weapons, cave art reflects the human attempt to control nature. The role of cave art as part of a hunting ritual is suggested by the following description of Pygmy life in the African Congo recorded by the twentieth-century German ethnographer Leo Frobenius.

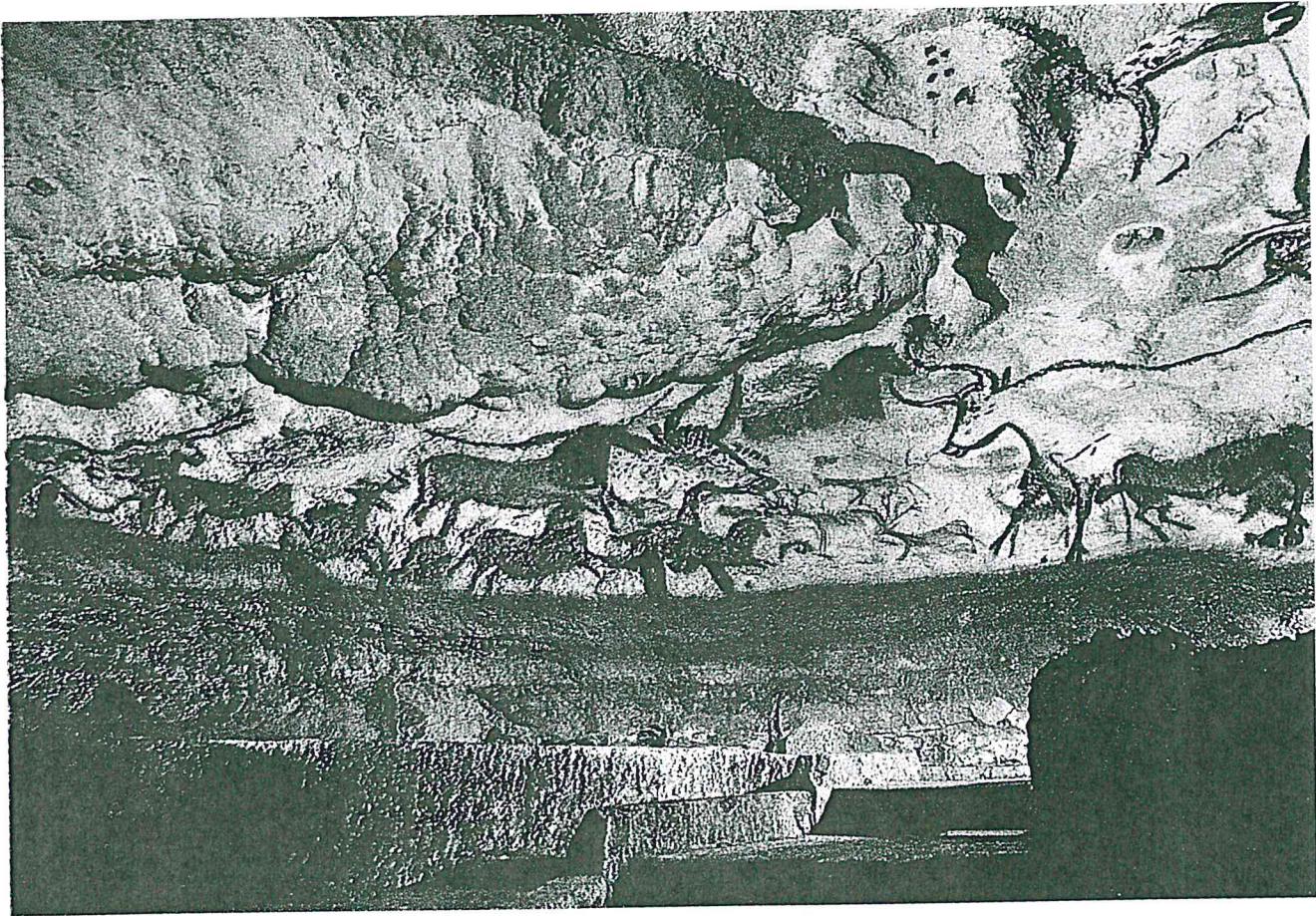


Figure 1.1 Hall of Bulls, left wall, Lascaux caves, Dordogne, France, ca. 15,000–10,000 B.C.E. French Government Tourist Office.

READING 1

The Story of Rock Picture Research

In 1905 we obtained further evidence from a Congo race, hunting tribes, later famous as the “pygmies,” which had been driven from the plateau to the refuge of the Congo [an area in South-central Africa bordering the Congo River]. We met in the jungle district between Kassai and Luebonn. Several of their members, three men and a woman, guided the expedition for almost a week and were soon on friendly terms with us. One afternoon, finding our larder rather depleted, I asked one of them to shoot me an antelope, surely an easy job for such an expert hunter. He and his fellows looked at me in astonishment and then burst out with the answer that, yes, they’d do it gladly, but that it was naturally out of the question for that day since no preparations had been made. After a long palaver they declared themselves ready to make these at sunrise. Then they went off as though searching for a good site and finally settled on a high place on a nearby hill.

As I was eager to learn what their preparations consisted of, I left camp before dawn and crept through the bush to the open place which they had sought out the night before. The pygmies appeared in the twilight, the woman with them. The men crouched on the ground, plucked a small square free of weeds and smoothed it over with their

hands. One of them then drew something in the cleared space with his forefinger, while his companions murmured some kind of formula or incantation. Then a waiting silence. The sun rose on the horizon. One of the men, an arrow on his bowstring, took his place beside the square. A few minutes later the rays of the sun fell on the drawing at his feet. In that same second the woman stretched out her arms to the sun, shouting words I did not understand, the man shot the arrow and the woman cried out again. Then the three men bounded off through the bush while the woman stood for a few minutes and then went slowly towards our camp. As she disappeared I came forward and, looking down at the smoothed square of sand, saw the drawing of an antelope four hands long. From the antelope’s neck protruded the pygmy’s arrow.

I went back for my camera intending to photograph the drawing before the men returned. But the woman, when she saw what I was up to, made such a fuss that I desisted. We broke camp and continued our march. The drawing remained unphotographed. That afternoon the hunters appeared with a fine “buschbock,” an arrow in its throat. They delivered their booty and then went off to the hill we had left behind us, carrying a fistful of the antelope’s hair and a gourd full of its blood. Two days passed before they caught up with us again. Then, in the evening, as we were drinking a foamy palm wine, the oldest of the three men —

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I had turned to him because he seemed to have more confidence in me than the others – told me that he and his companions had returned on the scene of their preparations for the hunt in order to daub the picture with the slain antelope's hair and blood, to withdraw the arrow and then to wipe the whole business away. The meaning of the formula was not clear, but I did gather that, had they not done as they did, the blood of the dead antelope would have destroyed them. The "wiping out," too, had to take place at sunrise.

As Frobenius' observations suggest, the ritual enactment of the hunt – accompanied by the proper images, words, and gestures – was a form of sympathetic magic invoked to bring about a successful result. It is likely that cave paintings once were a part of collective rituals similarly designed to control nature. Securing the name or physical likeness of an object allowed one to exercise control over that object. Such faith in the power to alter reality through symbols has been basic to religious ceremonies throughout the history of humankind, but it was especially important to a culture in which control over nature was crucial to physical survival. A motif commonly found on cave walls is the

50 image of the hunter's hand, created in negative relief by blowing or splattering color around a real human hand placed against the wall's surface (Figure 1.2). Since the hand was the hunter's most powerful ally in making and wielding the weapon, it is fitting that it appears enshrined in the sacred precinct amidst the quarry of the hunt. Although the precise meaning of many of the markings on prehistoric cave walls remains a matter of speculation, cave art may be understood as our early ancestors' attempts to control their environment and thus ensure their survival.

Along with representations of animals and hands, images of women appear frequently in Paleolithic art. Females contributed to the process of securing food and provided for the well-being of the tribe. The Pygmy ritual described by Frobenius suggests a clear division of labor even in the performance of ritual: As the male shoots the arrow into the image of the antelope, his female companion issues special words and gestures. Similar kinds of shared responsibility probably characterized humankind's earliest societies, where women served as healers and nurturers. Moreover, since the female assured the continuity of the tribe by her role as childbearer, she assumed a special importance within the community. In ancient mythology, the earth

Figure 1.2 Spotted Horses and Negative Hand Imprints, Pech-Merle caves, Lot, France, ca. 15,000–10,000 B.C.E. Length 11ft. 2in. Studio Laborie, Bergerac.

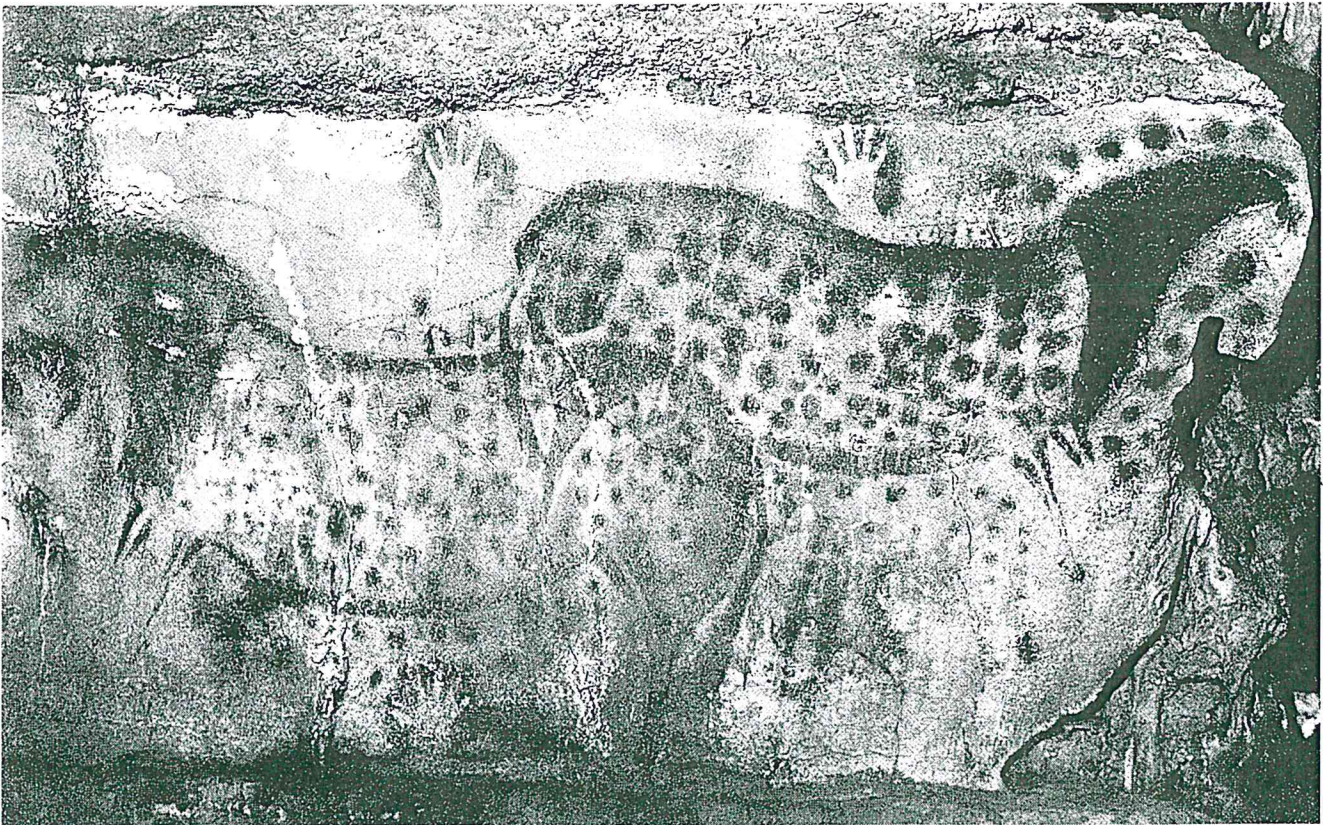
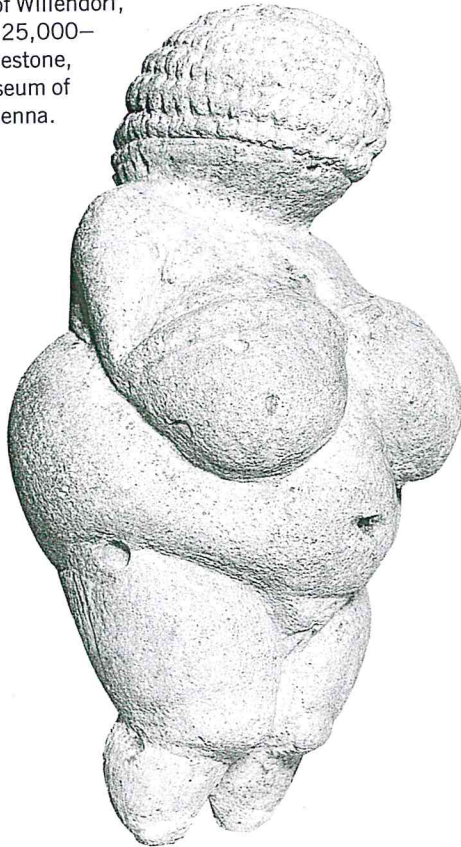


Figure 1.3 Venus of Willendorf, Lower Austria, ca. 25,000–20,000 B.C.E. Limestone, height $4\frac{3}{8}$ in. Museum of Natural History, Vienna.

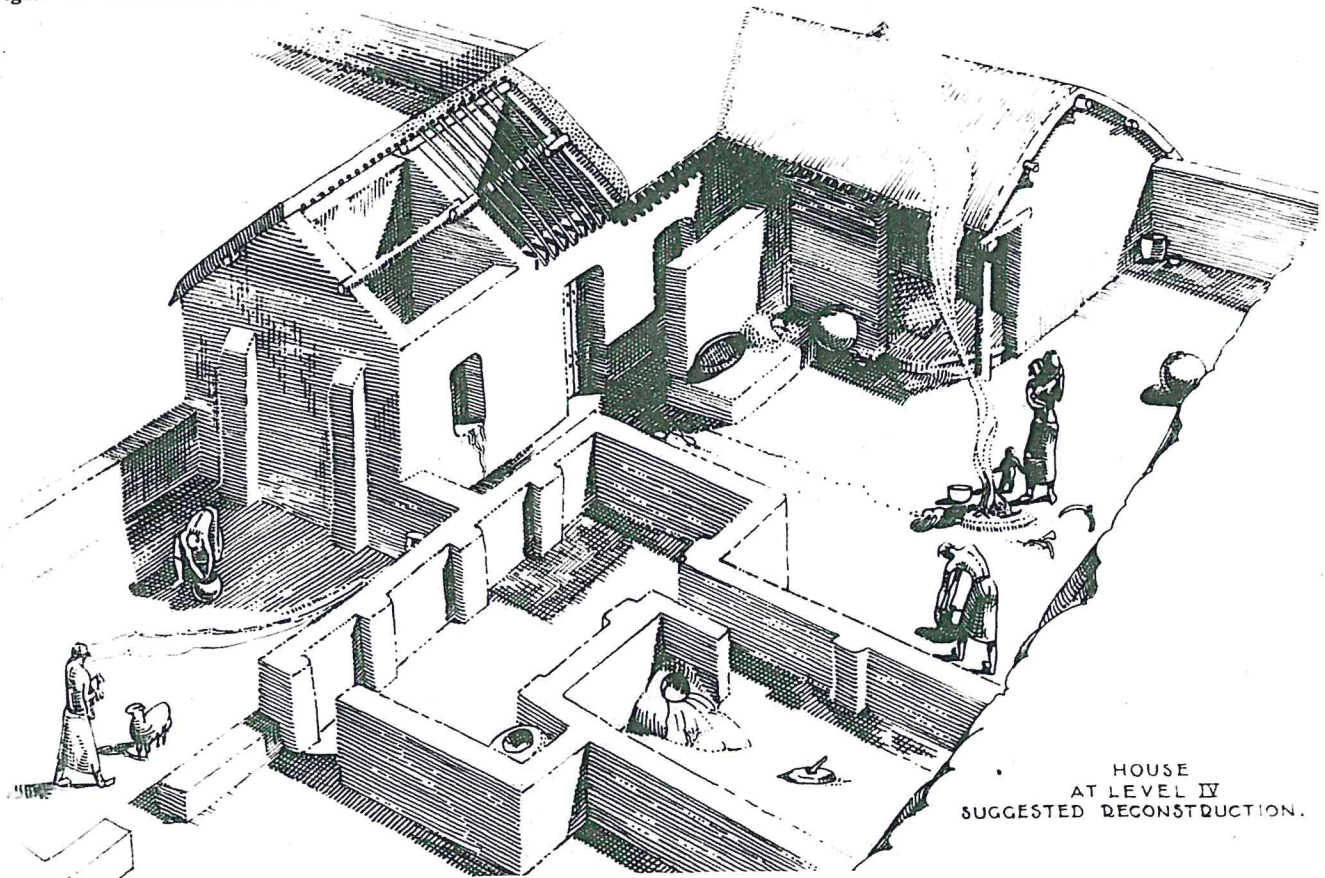


mother or mother-goddess epitomized the procreative force. Her association with fertility is suggested by the numerous examples of female statuettes with swollen breasts and large abdomens, indicating pregnancy (Figure 1.3).

Neolithic (“New Stone Age”) Culture (ca. 8000 – 4000 B.C.E.)

Paleolithic people lived at the mercy of nature. However, during the transitional (or Mesolithic) phase that occurred shortly after 10,000 B.C.E., people discovered that the seeds of wild grains and fruits might be planted to grow food. Between roughly 10,000 and 8000 B.C.E., hunters and gatherers became farmers and food producers. A dynamic new phase in the development of human culture – Neolithic (or New Stone Age) culture – emerged. Food production enabled groups of people to settle in one place, to raise crops such as wheat and barley, to build permanent shelters, and to establish farming communities. Neolithic folk domesticated wild animals. They raised goats, pigs, cattle, and sheep that provided regular sources of food and valuable by-products like wool. The transition from the hunting-gathering phase of human subsistence to the agricultural-herding phase was a revolutionary

Figure 1.4 Isometric reconstruction of Neolithic house at Hassuna (level 4). The Oriental Institute, The University of Chicago.



HOUSE
AT LEVEL IV
SUGGESTED RECONSTRUCTION.

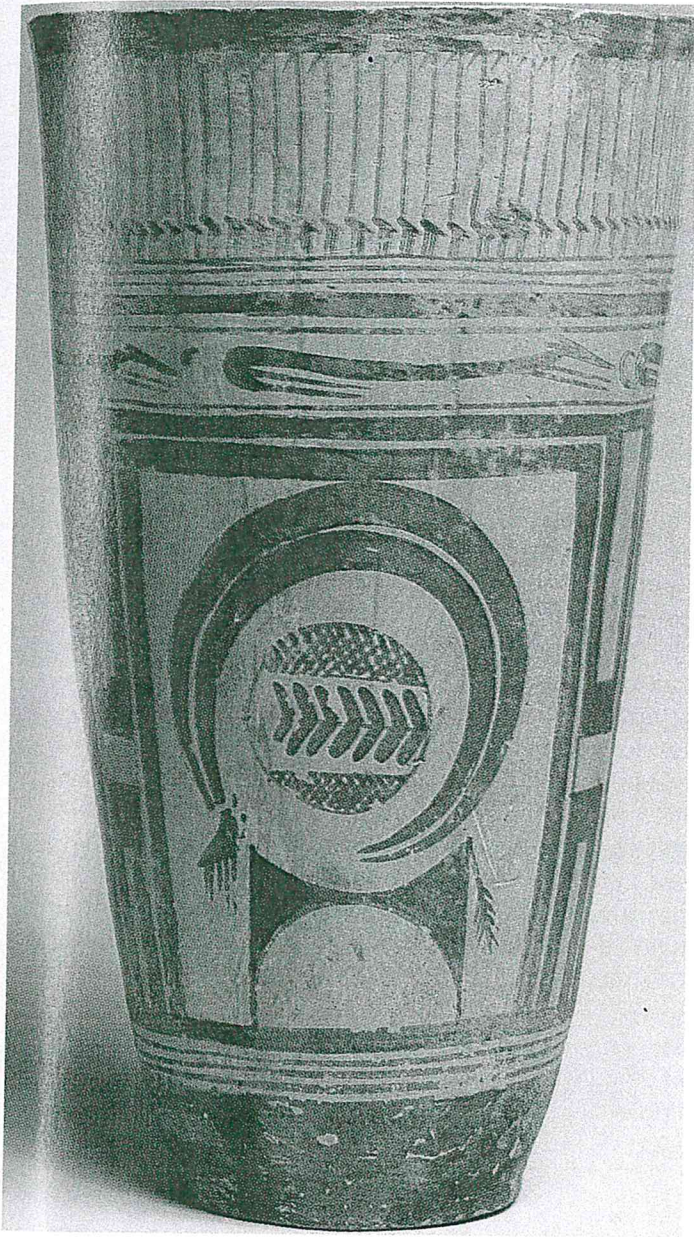


Figure 1.5 Beaker painted with goats, dogs, and long-necked birds, Susa, S.W. Iran, ca. 5000–4000 B.C.E. Baked clay, height 11¼ in. Louvre, Paris. Photo: © R.M.N.

development in human social organization because it marked the shift from a nomadic to a sedentary way of life.

Neolithic sites excavated by archeologists in the Near East (especially Israel, Jordan, Turkey, Iran, and Iraq), the Far East (China and Japan), and some dating as late as 1000 B.C.E. in Meso-America, reveal villages incorporating a number of mud- and limestone-faced huts, humankind's earliest architecture (Figure 1.4). At Jericho, in present-day Israel, massive defense walls surrounded the town. In Jarmo, in northern Iraq, a community of more than 150 people farmed with stone

sickles. Polished stone tools, some designed especially for farming, replaced the cruder, less sophisticated tools of Paleolithic people. Ancient Japanese hunter-gatherers seem to have produced the world's oldest known pottery – handcoiled and fired clay vessels. But it was in the Neolithic Near East that the domestic crafts of pottery and weaving came to flourish. Clay receptacles, often decorated with abstract motifs (Figure 1.5), were used to preserve surplus foods for the lean months, and woven rugs provided comfort against the wind, rain, and cold. Homemakers, artisans, and shepherds played significant roles in Neolithic society.

Agricultural life stimulated a new awareness of the seasons and seasonal change and a keen preoccupation with such powers of nature as the sun and rain. The earth's fertility and the natural cycle of birth and death were the principal concerns of the farming culture. A hand-modeled clay figurine from a Neolithic grave in Tlatilco in central Mexico presents an astonishing image of the eternal duality of life and death (Figure 1.6). On one side, the realistically modeled figure appears plump and vigorous, but on the other, the flesh is stripped away to reveal the skeletal remains of the body. Although the precise function of this object

Figure 1.6 Eternal duality of life and death, figurine, Tlatilco, Mexico, 1700–1300 B.C.E. Clay, height approx. 12 in. Museo Regional de Antropología e Historia, Villahermosa, Tabasco. Richard Stirling/Photo © Ancient Art and Architecture Collection, Harrow.





Figure 1.7 Cycladic figurine, 2400–2000 B.C.E. Marble, height 30¼ in. Reproduced by courtesy of the Trustees of the British Museum, London.

remains a mystery, its startling reference to the interrelationship of life and death reflects a profound sensitivity to temporal decay and to the cyclical aspect of nature.

The large number of female statuettes found in Neolithic graves suggests that Neolithic religion featured the worship of fertility goddesses along with rites focusing on seasonal regeneration. We can only guess at how such statues were used, but they may have been associated with fertility cults that ensured successful childbirth and bountiful crops. In contrast with the so-called Venus of Willendorf (see Figure 1.3), whose sexual characteristics are deliberately exaggerated, a marble statuette from the Cyclades (a group of Greek islands in the Aegean Sea) takes an abstract and highly stylized form (Figure 1.7). Though lacking the expressive fleshiness of the Paleolithic Venus, the Cycladic figure probably played a similar role in rituals that sought the blessings of mother earth.

To farming peoples, seasonal change – a primary fact of subsistence – was associated with death and rebirth. The dead, whose return to the earth put them in closer touch with the forces of nature, received careful burial. Neolithic folk marked graves with crudely cut stones that form a womblike superstructure (Figure 1.8). Megaliths (“great stones”) might be placed upright in circles or multiple rows and capped by horizontal slabs, a system exemplary of the most basic type of architectural construction: post and lintel (Figure 1.9 a and b). Such structures seem to have served both as burial sites and as temple sanctuaries. At Stonehenge, in southeast England, an elaborate group of stone circles forms one of the most mysterious and impressive monuments of the Neolithic Era (Figures

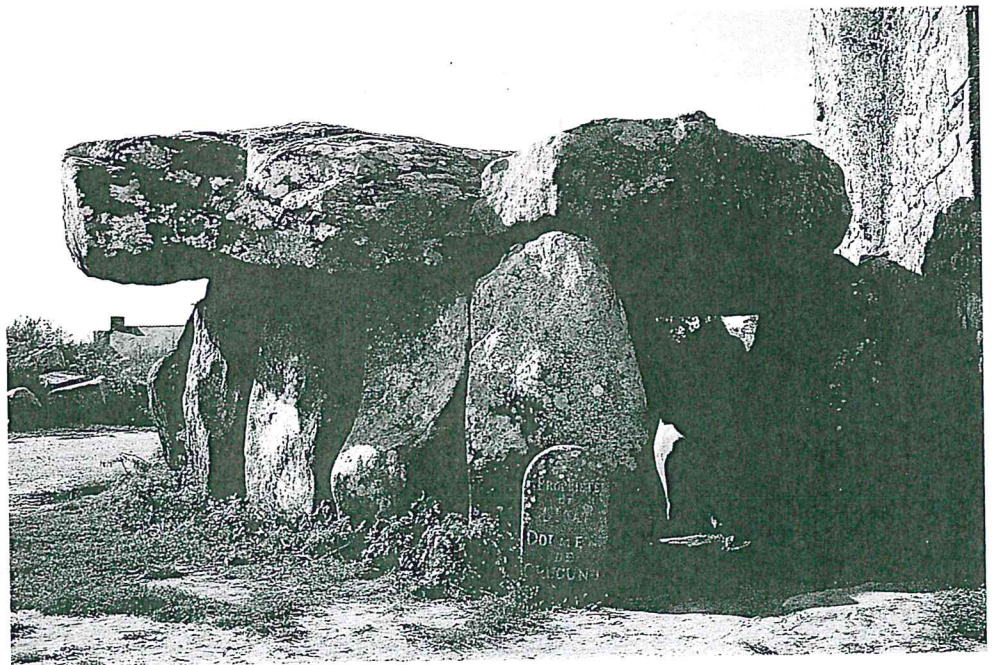
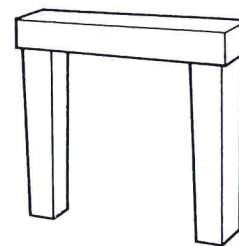


Figure 1.8 Neolithic burial site, Dolmen (upright stones supporting a horizontal slab), Great Ormes Head, Wales. Ancient Art and Architecture Collection, Harrow.



(a)



(b)

Figure 1.9 Stonehenge, Salisbury Plain, Wiltshire, England, ca. 2000 B.C.E. Diameter, 97 ft. Aerofilms Ltd., London. (Right) Post and lintel construction.

Figure 1.10 Stonehenge trilithons (lintel-topped pairs of stones at center). Height approx. 24 ft. (including lintel). © English Heritage Photographic Library.



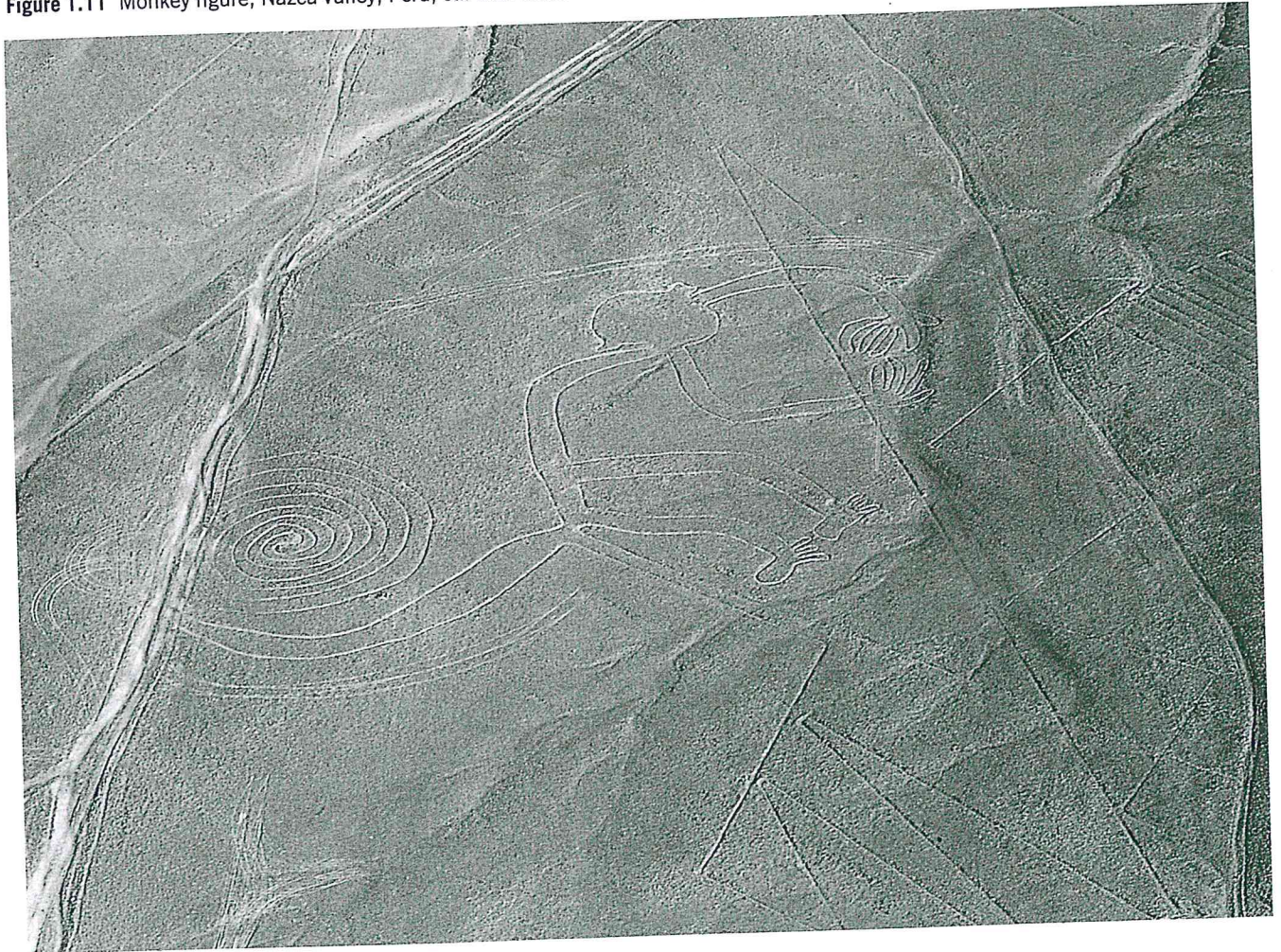
1.9a and 1.10). Twenty-foot megaliths, some weighing four tons, were dragged hundreds of miles to complete a temple complex used to predict the movements of the sun and moon – information that would have been essential to an agricultural society. A special stone that stands apart from the complex marks the point at which the sun rises at the midsummer solstice (the longest day of the year). Other Neolithic projects are equally monumental. In the coastal deserts of Peru, enormous earthwork lines form geometric figures, spirals, and bird, animal, and insect designs the meaning and function of which are yet to be deciphered (Figure 1.11). So extraordinary are these earthworks that some modern writers have attributed their existence to the activity of beings from outer space – just as medieval people thought Stonehenge the work of Merlin, a legendary magician. The total evidence of Neolithic ingenuity, however, severely challenges the credibility of such theories. Indeed, recent scholarship suggests that the Peruvian earthworks may have served as starmaps or astronomical calendars designed to help ancient farmers determine dates for planting crops.

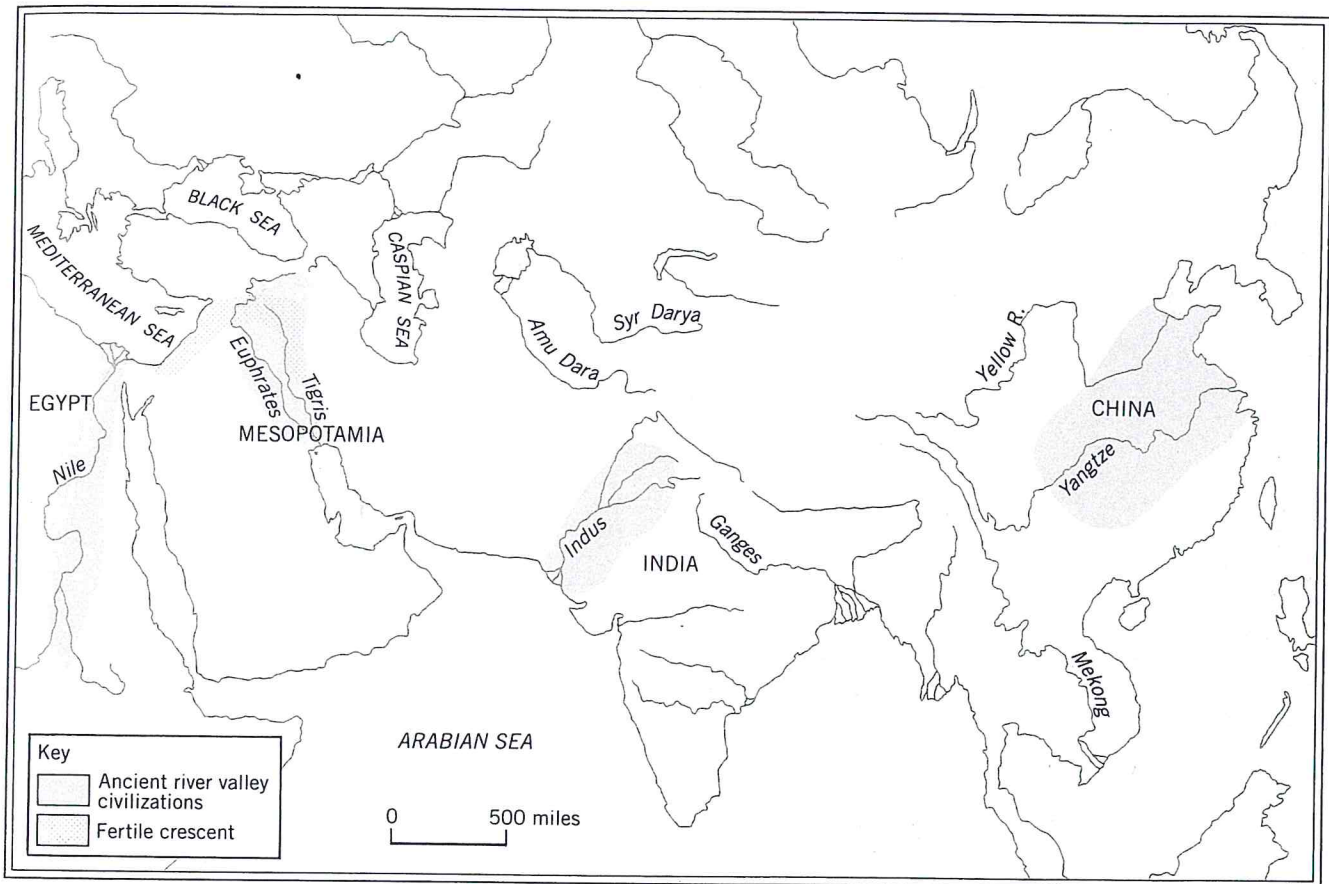
The Birth of Civilization

Around 4000 B.C.E., a new chapter in the history of humankind began. As Neolithic villages grew in population and size and produced surplus food and goods, they began to trade with neighboring villages. The demands of increased production and trade went hand in hand with the division and specialization of labor and with the development of such technological inventions as the wheel, the plow, and the solar calendar, all of which spurred economic efficiency. By 4000 B.C.E., wheeled carts transported people, food, and goods, and sailboats used the natural resources of wind and water for similar purposes. Simple Neolithic villages grew in size and complexity to become cities.

The momentous birth of civilization occurred earliest in Mesopotamia, a fertile area that lay between the Tigris and Euphrates Rivers of the Near Eastern land mass (Map 1.1). Mesopotamia formed the eastern arc of the Fertile Crescent which stretched westward to the Nile delta. At the southeastern perimeter of the Fertile Crescent, about a dozen cities made up the territories of

Figure 1.11 Monkey figure, Nazca Valley, Peru, ca. 100 B.C.E. Photo: © Tony Morrison, South American Pictures.





Map 1.1 Ancient River Valley Civilizations.

Sumer, the earliest civilization known to history. Soon after the rise of Sumer, around 3500 B.C.E., Egyptian civilization emerged along the Nile River in northeast Africa. In India, the first cities arose in the valley of the Indus River that runs through the northwest portion of that continent. Chinese civilization was born in the northern part of China's vast central plain, watered by the Yellow River. The shift from village to city life in these four river valleys was not simultaneous. In China, this development seems to have taken place at least a thousand years later than in the ancient Near East.

The cultural patterns of early civilizations were more complex than those of Neolithic villages. Specialization and division of labor enhanced productivity and encouraged trade. Trade became basic to urban economy; and as the numerous transactions of a flourishing economy could not be committed to memory, it became necessary to devise some method of record keeping – hence, the invention of writing. The earliest form of writing comes from Sumer around 3500 B.C.E., where simple drawings, or pictographs, were inscribed on clay tablets (Figure 1.12). By 1900 B.C.E., these marks were transformed into wedge-shaped signs comprising a cuneiform script (Figure 1.13). Of the thousands of clay tablets found in ancient

Mesopotamia, the largest number bear notations concerning production and trade. In addition to these inventories and business accounts, there are cuneiform texts that commemorate special events, record religious practices, and describe political life.

The development of a written language is often regarded as the defining feature of “civilization,” but it is only one of many inventions mothered by necessity. At approximately the same time that systems of writing emerged, metal began to be used in place of stone and bone. Metallurgy, first practiced in Asia Minor around 4000 B.C.E., afforded a significant extension of control over nature by providing harder and more durable tools and weapons. At first, copper ore was extracted from surface deposits, but eventually metalsmiths devised methods of mining and smelting ores. The result was bronze, an alloy of copper and tin that proved far superior to stone or bone in strength and durability. Since metal resources were often located far apart, travel and far-flung trade were essential to Bronze-Age cultures. Moreover, metallurgy was a time-consuming process that required specialized training and the division of labor. Bronze weapons, therefore, were costly, hence available only to a small and well-to-do minority of the population. This minority formed a



Figure 1.12 Reverse side of a pictographic tablet from Jamdat Nasr, near Kish, Iraq, ca. 3000 B.C.E., listing accounts involving animals and various commodities including bread and beer. Ashmolean Museum, Oxford.

Earliest pictographs (3000 B.C.)	Denotation of pictographs	Pictographs in rotated position	Cuneiform signs ca. 1900 B.C.	Basic logographic values	
				Reading	Meaning
	Head and body of a man			lu	Man
	Head with mouth indicated			ka	Mouth
	Bowl of food			ninda	Food, bread
	Mouth + food			ku	To eat
	Stream of water			a	Water
	Mouth + water			na	To drink
	Fish			ku	Fish
	Bird			mušen	Bird
	Head of an ass			anše	Ass
	Ear of barley			še	Barley

Figure 1.13 The development of Sumerian writing from a pictographic script to cuneiform script to a phonetic system. Adapted from Samuel Noah Kramer, "The Sumerians," Copyright © 1957 by Scientific American, Inc. All rights reserved.

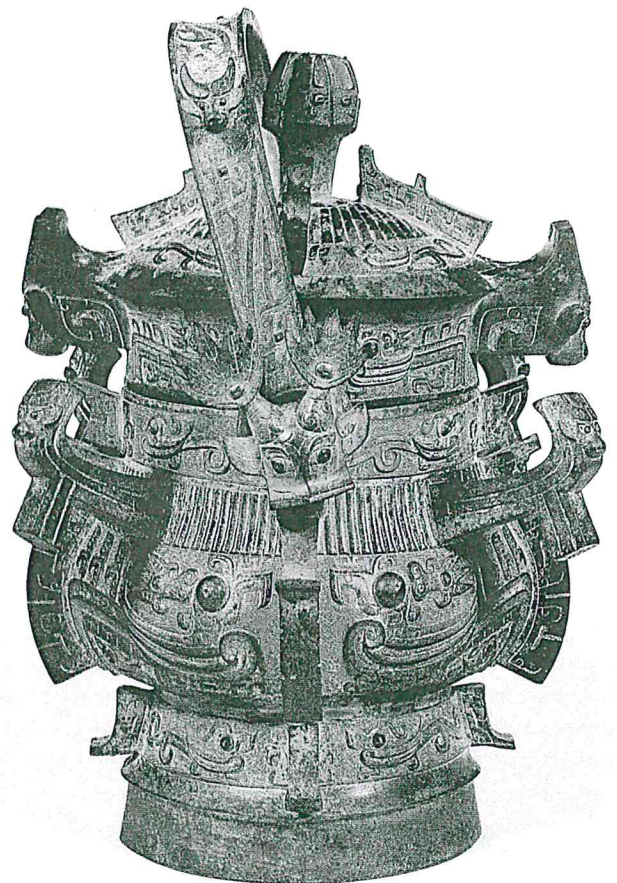


Figure 1.14 Ceremonial vessel with a cover, Late Shang Dynasty, China, ca. 1000 B.C.E. Bronze, height 20 1/16 in. Freer Gallery of Art, Smithsonian Institution, Washington, D.C. Accession No. 30.26 AB.



Figure 1.15 The King of Lagash Leads His Phalanx into Battle. Detail of Eannatum's Stele of Victory from Telloh (Lagash), ca. 2800 B.C.E. Louvre, Paris. Giraudon/Art Resource, New York.

military elite who wielded power by virtue of superior arms. As the victory monument pictured in Figure 1.15 indicates, ancient Mesopotamian warriors were outfitted with bronze shields, helmets, and lances.

The technology of bronze casting spread throughout the ancient world. In ancient China, ritual vessels of bronze were used to offer food and drink to ancestral spirits. Such vessels were cast in sectional molds assembled around a solid central core (Figure 1.14). Legs and handles were cast separately and soldered on,

and all surfaces were ornamented with fantastic mythical animals. The stylized ducks, dragons, and mazelike spirals that adorn the surface of the wine vessel pictured in Figure 1.14 vividly convey the ancient Chinese view of the universe as animated by natural spirits.

Specialization of labor encouraged the development of different classes of workers with different types of authority. In early civilizations, the magician-priest who prepared the wine in the ritual vessel, the soldier

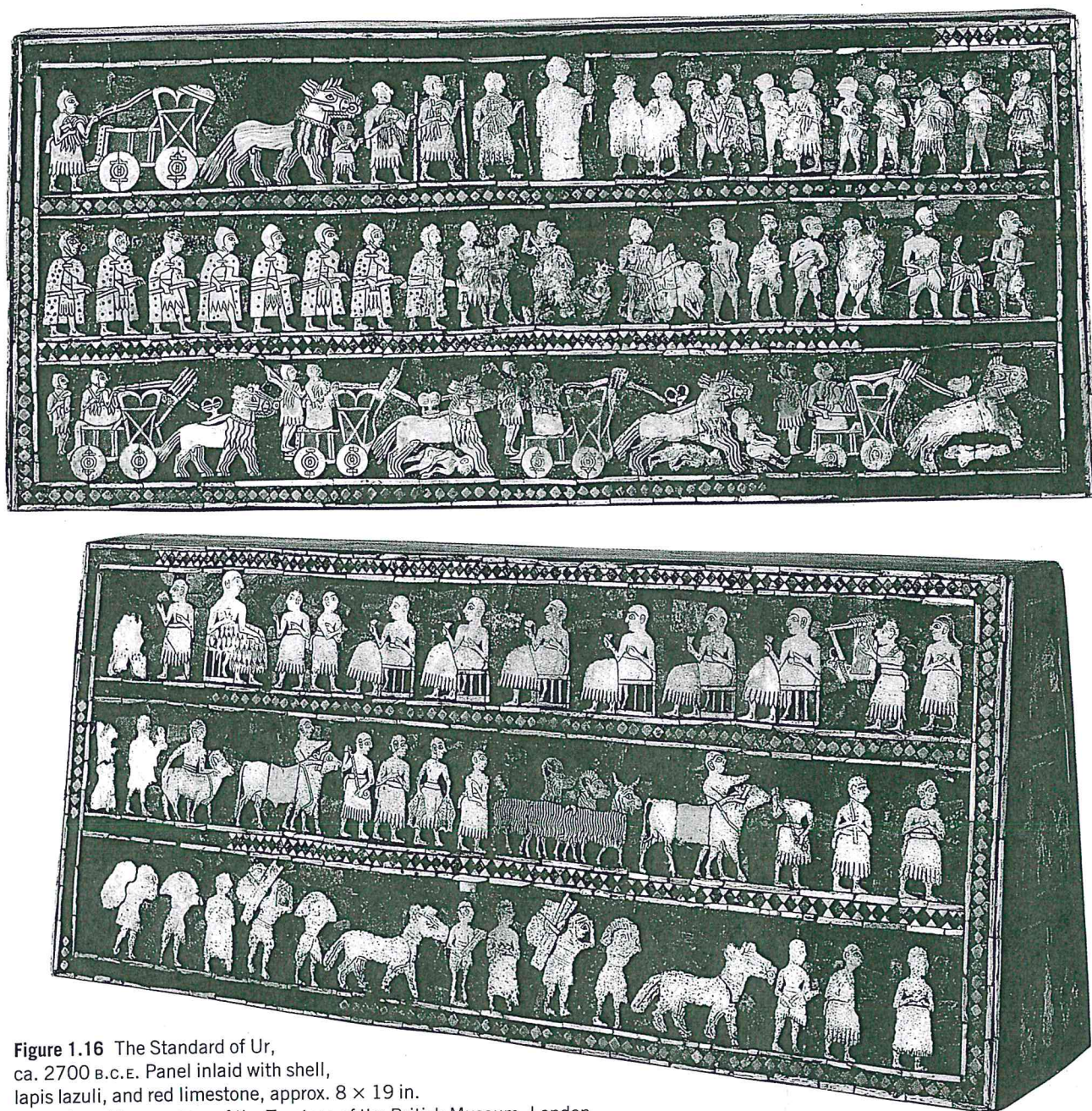


Figure 1.16 The Standard of Ur, ca. 2700 B.C.E. Panel inlaid with shell, lapis lazuli, and red limestone, approx. 8 × 19 in. Reproduced by courtesy of the Trustees of the British Museum, London.

who protected the city, and the farmer who cultivated the field represented fairly distinct groups of people with unique duties and responsibilities to society as a whole. The “Standard of Ur,” an object whose precise function is unknown, illustrates this division of labor in Mesopotamia around 2700 B.C.E. (Figure 1.16). The three registers of this double-sided panel, executed in shell, mother-of-pearl, and lapis lazuli, describe events commemorating a Sumerian victory. On one side, the top and middle strips show the ruler and his soldiers taking prisoners, while the bottom one depicts horse-drawn chariots trampling the victims of war. On the reverse side of the panel, the rulers of the Sumerian community lift their goblets at a celebratory banquet

whose entertainers include a harpist and his female companion. The bottom registers record the transportation of goods and animals – the booty of war.

The birth of civilization came about not as a fleeting moment of change, but as a slow process of urban growth. As the political, economic, and religious institutions of ancient civilizations grew more complex, palaces, temples, and military defenses became essential to community welfare, as did irrigation, road building, and a wide variety of other activities. Civilization was made possible only by cooperation among those whose individual tasks – governing, trading, farming, and so on – contributed to communal survival.

The Iron Age

Any radical change in the technology of a given society has wide-reaching effects. Such was the case when the Hittites, a nomadic tribe using horse-drawn chariots and iron weapons, entered Asia Minor around 2000 B.C.E. The chariot gave Hittite warriors speed and mobility, while their iron weapons, which were cheaper to produce and more durable than those made of bronze, gave them clear military superiority. More durable tools meant increased agricultural production, which in turn supported increased population. And cheaper and stronger weapons meant larger, more efficient armies. By the first millennium B.C.E., war was no longer the monopoly of the elite. Equipped with iron weapons, the armies of the Assyrians (ca. 750–600 B.C.E.), the Chaldeans (ca. 600–540 B.C.E.), and the Persians (ca. 550–330 B.C.E.) conquered vast portions of Mesopotamia. One after the other, they imposed political control over territories outside their own natural boundaries – a practice known as imperialism. War and slavery – two salient characteristics of ancient history – were enterprises undertaken by human beings to establish control not simply over their environments, but over each other.

In the wake of the Iron Age, numerous small states emerged in ancient Mesopotamia. Some of these civilizations made major contributions to world culture. By 1000 B.C.E., the Phoenicians, an energetic trading culture located on the Mediterranean Sea, developed an alphabet of twenty-two signs that eventually replaced pictographic script. The Lydians, who succeeded the Hittites in Asia Minor, began the practice of minting coins during the seventh century B.C.E. And the Hebrews, whose history will be treated in the next chapters, developed unique religious beliefs and a code of moral law, both of which have survived for centuries.

SUMMARY

The story of our humanistic tradition begins in an unrecorded past, in the prehistory of our earliest ancestors as they struggled for survival in an environment they sought to control. Unlike lower forms of life, early human beings developed the ability to transmit information from generation to generation. Not only did these creatures manipulate nature to shape culture, but they devised ways of passing on that culture to their heirs.

Paleolithic people were tribal hunters and gatherers who controlled nature by means of stone and bone tools and weapons. Neolithic folk exercised considerably greater control over nature by learning how to produce food. Farming freed Neolithic people from the perils and uncertainties of nomadic life. After 4000

B.C.E., at the birth of civilization, river valleys in Mesopotamia, Egypt, northern India, and central China began to support urban centers with trading economies. Written systems of record keeping and a bronze technology are two hallmarks of these early civilizations. The development of iron around 2000 B.C.E. in ancient Mesopotamia represented yet another technological leap in the human extension of control over nature. By the operation of an increasingly refined abstract intelligence, and by means of ingenuity, imagination, and cooperation, the earliest human beings triumphed over nature and laid the foundations for our humanistic tradition.

GLOSSARY

culture the sum total of those things (including traditions, techniques, material goods, and symbol systems) that people have invented, developed, and transmitted

cuneiform (“wedge-shaped”) a system of writing used in the ancient Near East and consisting of wedge-shaped characters impressed into clay by means of a reed stylus

hominid any of a family of bipedal primate mammals, including modern humans and their ancestors, the earliest of which is *Australopithecus*

imperialism the practice of extending rule or authority over the political and

economic life in areas outside of one’s natural or linguistic boundaries

lapis lazuli a blue-colored semiprecious stone

megalith a large, roughly shaped stone, often used in ancient architectural construction

pictograph a pictorial symbol that makes up humankind’s earliest systems of writing

post and lintel the simplest form of architectural construction, consisting of vertical members (posts) and supporting horizontals (lintels); see Figure 1.9

prehistory the study of history before written records

SUGGESTIONS FOR READING

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