CHAPTER I

History in General and in Particular

What History Includes. History has a great variety of definitions and applications. In the broadest sense, it considers every action and every thought that man has had since his first appearance and records every significant advance or recession. It attempts to evaluate all the developments in science, in art, in literature, in philosophy, in architecture, in sociology, in politics, in war, in religion, and in law. It sketches as complete a picture as possible of everything that has influenced man directly or indirectly.

Points of View. History has not always been so broadly interpreted. For a long time, historians were concerned primarily with politics. Freeman, an eminent English historian of the 19th century, defined history as "past politics." Herodotus, the first great historian, neglected social and economic forces and overemphasized the personal element. Today, students of history disagree as to which of the various phases is most important. The economic determinists claim that "the fundamental condition of all life is economic," while the hero-worshipers and others think that the individual is all-important. These are extreme points of view: the first is fatalistic, neglects ethical forces, and minimizes the importance of great men; the second fails to recognize the fact that great men do not produce the age but are manifestations of it. The correct interpretation of history proceeds from a combination of the two in a modified form.

Function of History. History, more than any other subject, has been enslaved and distorted for selfish purposes. Members of

the clergy have used it to glorify and to promote the interests of the church, statesmen have utilized it to sway masses, and writers have distorted facts to substantiate their conclusions. War spirit has been kindled through undue emphasis upon facts, if not falsification of them. In our own country, the Northerner insists upon an interpretation of the Civil War different from that which the Southerner demands. The historian is likely to exaggerate the history of his own country—sometimes unintentionally—because of his environment, and sometimes in order to facilitate the sale of his book. In all countries, there are zealots in responsible positions who cannot bear to have their fatherland criticized. Truth is frequently sacrificed at the altar of patriotism. Henry C. Lea, an outstanding American historian, declared that history should be "a serious attempt to ascertain the severest truth as to the past and set it forth without fear or favor." Michelet, famous French historian, believed that "sacrilege and the mocking of false gods are the historian's first duty, his indispensable instrument for reestablishing the truth."

The "New History." The slight progress that we have made in the direction indicated by Lea and Michelet is rather discouraging, but there is a trend toward a broader and more inclusive point of view in the writing and teaching of history. World history, correctly interpreted, puts the individual state in the proper perspective and lessens the dangers of excessive nationalism. History has become more than war and politics. To make the story complete, the historian of the new school makes use of the work of the ethnologist, the anthropologist, the geographer, the archaeologist, the geologist, the psychologist, the astronomer, the zoologist, the biologist, the chemist, the sociologist, and the economist. He is concerned with man's cultural advances and his society, as well as with charters, constitutions, and wars.

There are dangers, as well as virtues, in the vast scope of the "new history." Overpopularization and underspecialization tend to cheapen history and to destroy some of its qualities as a basic and sober study. There are decided advantages in the comprehension of the broad scope of history, but, in addition, the student should be able to appreciate the depth of the subject. Years of research have been spent and volumes have been written on a single topic. Without these specialized works, surveys would be of no particular

value. Professor Bernadotte Schmitt[1] has written a two-volume work on the events of the few days that preceded the outbreak of World War I in 1914, while in about the same number of pages, H. G. Wells[2] has written the whole story of mankind, from the creation to the present time. Both authors have made distinct contributions to historical knowledge, but from different points of view. Professor Schmitt has explored to its extremities one comparatively small subject, and H. G. Wells has given a broad interpretation of history based upon numerous detailed studies made by others. However, some of the historians of the new history" have sacrificed important fundamental facts in order to make a chronicle of heroic persons and romantic occurrences They have overstepped the point where history and fiction should meet. The historian should make his description of the past lifelike. hence, he should include grim realities as well as romantic incidents.

Is History a Science? There has been great controversy over the question whether or not history is a science. The historian s work is concerned largely with the character, reliability and defects of his sources. Facts may be arranged in systematic order and in accordance with established laws of research, but the information is inferior to the data available in the natural sciences. The historian does not have the direct experience of the phenomena which he tries to explain. Napoleon's Moscow expedition cannot be reproduced in a laboratory, as the determination of the physical properties of water may be. Humanity is made up of individuals, no two of whom are alike. Indeed, every person is distinctly new—no one in the past even approximated him closely, if his entire make-up is considered. Every human being has something unique in spirit, if not in body. In Goethe's words, "the best in man has no form." Professor James H. Robinson truthfully concludes that "the historian, from a narrow scientific point of view, is a little higher than a man of letters and a good deal lower than an astronomer or a biologist."[3]

Laws in History. Though history is not an exact science, some progress has been made in the determination of the fundamental laws that govern human conduct. Buckle, an English historian,

[1] Schmitt, B., *The Coming of the War* (Scribner's, 1930, 2 vols.).
[2] Wells, H. G., *Outline of History* (Macmillan, 1923).
[3] Robinson, J. H., *The New History* (Macmillan, 1916), 69.

published in 1857 the first volume of his unfinished *History of Civilization*. He mentioned the shortcomings of history as a science. "History is still miserably deficient, and presents that confused and anarchical appearance natural to a subject of which the laws are unknown and even the foundations unsettled." He proposed to "accomplish for the history of man something equivalent, or at all events analogous, to what has been effected by other inquirers for the different branches of natural science." He intended to seek the laws, physical and mental, which influence mankind and to show how they worked in the development of civilization. Buckle died before his task was completed and it was more than half a century before anything was added to his work. Professor E. P. Cheyney, distinguished American authority on English history, has advanced some thought-provoking ideas on the possibilities of establishing scientific laws in history. Professor Cheyney writes, "examined closely and measured carefully, set in their true perspective, the personal, the causal, the individual influences sink into insignificance and great cyclical forces loom up." He suggests six such cyclical forces, or laws: continuity, impermanence, interdependence, democracy, necessity for free consent, and moral progress.[1] These are highly suggestive and may be a step toward making history a more definite science.

Civilization. One of the important aspects of the "new history" is the emphasis upon man's cultural developments, popularly termed *civilization*. Civilization is difficult to define and evaluate. Just where it began and where man's actions and thoughts became human is impossible to determine. Man, like animals, has senses but some are less acutely developed; man has emotions, most of which are present, but latent, in animals. Comfort seems to be the chief goal of the lower forms of animal life, but man pushes beyond that toward something that he has difficulty in defining. This intangible something may be called civilization. Professor Lynn Thorndike believes that civilization "is the product of our higher qualities as exercised first by original and superior individuals and then accepted or followed by a sufficient number of human beings to make it a social fact."[2] Buckle held that moral and intellectual progress is the basis of civilization. Emerson believed

[1] Cheyney, E. P., *Law in History and Other Essays* (Crofts, 1927), 1.
[2] Thorndike, Lynn, *A Short History of Civilization* (Crofts, 1926), 3.

that civilization is progress, and Bertrand Russell, a modern philosopher, thinks that it is the progress and predominance of science. Perhaps we can agree that knowledge of nature, progress in art, an ethical code, a government, and a degree of material prosperity are essential in any form of civilized society. Civilization became possible when chaos and insecurity were minimized. Curiosity and constructiveness were encouraged when fear was overcome and man turned his attention toward the understanding and embellishment of life.

The Role of History. History has an important role to play in the development of civilization. Any careful observer is impressed with the extent to which events of today are rooted in the past. If all our knowledge of past experience were to disappear, probably nine-tenths of the inhabitants of large cities would die within a month, and those surviving would soon return to a primitive state. The careful student of history should be able to understand the present and to obtain a slight preview of what the future holds in store. Misconceptions and superstitions are still widely prevalent, although they are fewer and less grotesque than in earlier periods. Intelligent people no longer believe that the Nile River overflows its banks merely to accommodate the Egyptians, or that Atlas holds the earth on his shoulders. Future generations will look back, no doubt, on some of our accepted principles with as much amazement as we regard those of the ancients. This is to be expected if progress continues.

Bibliographical Note. The bibliography at the end of each chapter is carefully selected, but it is by no means complete. In order that the student shall not be overwhelmed with a formidable list of books, only a chosen few are listed. Books were selected on the basis of usability and those named should be available in most college libraries. Rather complete bibliographies can be found in H. E. Barnes's *The History of Western Civilization*, *Cambridge Ancient History*, *Cambridge Medieval History*, and *Cambridge Modern History*. Will Durant's *History of Civilization*, Vol. I, "Our Oriental Heritage," has a usable bibliography for Oriental civilization. *A Guide to Historical Literature*, edited under the auspices of the American Historical Association, and J. Nield's *Guide to the Best Historical Novels and Tales* are good general bibliographical aids. Some very valuable historical material has never been pub-

lished in book form, but can be found in such periodicals as *The American Historical Review*, *The English Historical Review*, *The Journal of Modern History*, and *The Political Science Quarterly*. *The Encyclopaedia Britannica* and the *Encyclopedia of the Social Sciences* are invaluable for quick reference to a great variety of subjects. In the following bibliographies, where a book is referred to more than once, the date and place of publication are omitted after the first reference. Roman numerals in references refer to volumes and Arabic numerals to chapters, unless otherwise noted.

Review Questions

1. What are the chief criticisms of the "economic determinist" interpretation of history?
2. Why is it important to study history?
3. Define the "new history."
4. Can history ever be a true science? Why?
5. Explain Cheyney's laws in history. Can you suggest any additions?
6. What are the standards by which civilization is measured?

Bibliography

Barnes, H. E., *History and Social Intelligence* (Knopf, 1926), 1–2. Dr. Barnes has done a great deal in the popularization of the idea of the "new history."

Berdyaev, N., *The Meaning of History* (Scribner's, 1936). A philosophical interpretation.

Breasted, J. H., *The Origin of Civilization* (Science Press, 1919).

———, *Dawn of Conscience* (Scribner's, 1934). The author was the leading American Egyptologist and from his exhaustive studies in Egypt he was in a position to write authoritatively on early civilization.

Cheyney, E. P., *Law in History and Other Essays* (Crofts, 1927). Chapter 1 discusses laws in history. An outstanding contribution.

Fortescue, J., *The Writing of History* (Longmans, Green, 1926). An excellent treatise on the writing of history.

Johnson, A., *The Historian and Historical Evidence* (Scribner's, 1926), especially 4–6.

Krey, A. C., and others, *Conclusions and Recommendations of the Commission* (Scribner's, 1934). Report of the Commission on Social Studies appointed by the American Historical Association.

Robinson, J. H., *The New History* (Macmillan, 1916). Professor Robinson was a pioneer in the development of the "new history."

Schevill, F., *History of Europe* (Harcourt, Brace, 1930). Chapter 1 gives a good short discussion of the nature of history.

Seligman, E. R. A., *Economic Interpretation of History* (Columbia University Press, 1924). The point of view of an economic determinist.

Vincent, J. M., *Historical Research, an Outline of Theory and Practice* (Holt, 1911), 11–12, 21, 23.

CHAPTER II

In the Beginning

1. THE ORIGIN OF THE EARTH

Tradition a Retarding Influence. One of the distinctions between man and the lower forms of animal life is their difference in interest concerning the origin of life, and in the possibilities of immortality. There is no direct evidence that animals are interested at all. Man, however, is constantly searching for confirmation of facts concerning his origin and as to the possibilities of life after death. Indeed, this search constitutes a major part of man's cultural activities. Lack of definite information has forced him into the fields of philosophy and religion for the satisfaction of his curiosity. Early religions made taboo of man's origin and also oversimplified the explanation of the life process. Theories, produced in ages inferior to our own in knowledge, have become so ingrained in our thoughts that many of them have persisted, in spite of well-established facts which prove the contrary. Copernicus, Galileo, and Darwin were branded as heretics because they challenged beliefs that were shielded with alleged divine sanctity. Slowly but surely, we are loosening many of the fetters that have bound us in the past. Our conclusions still may be wrong, but they permit a point of view more logical and less fantastical than those held by earlier generations.

Time Element. The time element in the study of man is one of the most important and, at the same time, one of the most difficult to comprehend. We are tempted to compare the span of our own lives or even that of our civilization with that of the universe. As a result, we lose an appreciation of what can take place and what has taken place in eons of time. It was long the

accepted belief that man always has had his present physical form and that the universe in which he lives always has been the same. From such reasoning, it is easy to conclude that both man and the earth appeared miraculously and spontaneously.

Early Theories Concerning the Origin of the Universe. Primitive man's explanations of the origin of the universe and his changes in these theories as civilization progressed reflect an interesting picture of human progress. Homer wrote that in the beginning there was a mighty river encircling land and sea like a serpent. Hesiod recorded that in its early state the universe was a yawning abyss, made up of void, mass, and darkness—all in a jumbled confusion. Finally, order came out of chaos, and the earth and the heavens appeared. An ancient Zoroastrian hymn shows the yearning which the believers had concerning the origin of the universe.

"Who gave the recurring sun and stars their undeviating way?
Who established that whereby the moon waxes, and whereby she wanes?

. . . . .

Who from beneath has sustained the earth and the clouds above that they do not fall?
Who made the waters and the plants?
Who to the winds has yoked the storm clouds?"

In the creation hymn taken from the *Rig-Veda*, one of the oldest literary works in Indo-European language (*ca.* 1200 B.C.), is found:

"Nor aught nor naught existed;
Yon bright sky was not,
Nor Heaven's broad roof outstretched above.
What covered all? What sheltered? What concealed?
Was it the water's fathomless abyss?"

Every Christian is familiar with the story of the creation of the earth found in the Bible. Peoples in various ages have produced their own accounts and there is progress shown in the intelligence of their conclusions, but in our own time scientists admit that nature is just beginning to unfold her secrets.

Evolution of Scientific Theories. Mystical theories concerning the universe have given way gradually to those of a more scientific nature. Aristotle (384–322 B.C.) refused to accept the belief that

the sun was a chariot that was driven through the sky by a god. He conceived the universe as having 55 concentric spheres that moved about in harmony from natural causes. Ptolemy (2d century) believed that the universe was a complicated system of planetary epicycles, with the earth as a center. Copernicus (1473–1543) concluded that the sun was the center of the universe and that the planets revolved about it in epicycles. Kepler (1571–1630) decided that the planets revolve about the sun in ellipses. Newton (1642–1727) contributed the theory of gravitation, and, in our own day, Einstein has added the concept of relativity. There are over 2,000 years of scientific development from Aristotle to Einstein, but the secrets of the universe as yet have been only partly explained.

The Nebular and Planetesimal Hypotheses. Two of the most outstanding scientific theories concerning the origin of the universe are the nebular and planetesimal hypotheses. The nebular hypothesis was advanced in 1796 by Laplace, who assumed that the whole solar system was at one time a huge gaseous mass, large enough to extend beyond the limits of the outermost planet, which then was thought to be Uranus. If, he said, this huge revolving mass gradually cooled and shrank it would rotate more and more rapidly as it contracted and would, he thought, break up into belts of gas, forming rings. From each ring, Laplace assumed that an ancestral planet formed, and that this in turn contracted and formed a lesser ring, which later developed into satellites or moons. The remaining central core became the planets, with the outer crusts cooling and solidifying. A criticism advanced against this theory is that a gaseous sphere could not give off rings and that they could not collect into planets in the form described by Laplace. Also, according to this theory, the sun should rotate very rapidly while, in fact, it rotates only once in 25 days.

The planetesimal hypothesis, suggested by Professors Chamberlin and Moulton of the University of Chicago in 1900, seems to be a much more plausible explanation of the earth's origin than the nebular hypothesis. They believe that our sun was approached by another star, which, through gravitation, pulled into space a great quantity of matter. These particles were united by the attractions of larger masses to become planets, of which the earth is an example. Atmosphere collected around these bodies, varying in density

in accordance with their size. The moon, for example, lacks atmosphere because it is too small to attract any, and Mars, which is about one-tenth the size of the earth, has a very thin atmosphere. Vapor within the gaseous substance that surrounds the planets condenses and falls as rain. In this fashion, water, through erosion, changed the surface of the earth and made possible the development of plant and animal life.

Development of Geology. Sir Charles Lyell, in his *Principles of Geology* (1833) established scientifically for the first time the fact that the earth's surface is the result of evolutionary natural causes and not of cataclysmic catastrophes. He showed that the history of the earth can be traced through eons of time by studying the geological strata. Later geologists have confirmed his views and have been able to weave a connected story of the history of the earth, now thought to be more than two billion years old. The history of the earth has been divided into the following geological periods: Primordial, Archeozoic, Proterozoic, Paleozoic, Mesozoic, and Cenozoic.

Primordial and Archeozoic Periods. Very little is known about Primordial time, because the rock strata of that period are all buried by younger ones. It was the time of earth formation and there was no life of any kind in existence. The Archeozoic is the first well-defined geological age. There were numerous volcanic outflows and giant upheavals. The thickness of the rock formations indicates that it lasted several hundred million years. Archeozoic formations outcrop in North America, Norway, China, and Australia. One of the largest known areas is the Canadian shield, including the northeastern part of Canada and extending southward into New York and into the northern part of New Jersey. There is no direct evidence that life existed in this period.

Proterozoic Period. The Proterozoic period lasted almost as long as the Archeozoic. It is characterized by numerous mountain formations. North of the Great Lakes, a huge mountain chain was formed, which was worn down before the end of the era. There is evidence that life existed. Soil was formed in which worm burrows and trails can be traced in many places. In some localities, notably in the Grand Canyon and in British Columbia, the variety of life in this period is represented by numerous fossils.

Paleozoic Period. The strata of the Paleozoic period are well

exposed and fossils are numerous. The Ural Mountains of Russia appeared and parts of Australia and India developed similar to their present form. There were many kinds of animal life: trilobites, fresh-water fishes, scorpions, reptiles, insects, and a very primitive type of land vertebrates. Primitive seed plants and ferns are found in the great coal beds, which accumulated in this period.

Mesozoic Period. The Mesozoic era began with the Appalachian uplift and closed with the Rocky and Andes mountain uplifts. The Mississippi Valley, the southern part of Europe, and northern Africa were submerged during part of this period. Animal life was abundant. The extinct dinosaur is an example of the massive size some of the creatures reached. The first birds, flying reptiles, flowering plants, and other types of vegetation existed in abundance.

Cenozoic Period. Land masses began to take their present form in the Cenozoic period. In North America, Florida appeared and the Mississippi Valley slowly emerged. In the Eastern Hemisphere, the Alps and the Himalaya Mountains were formed and the Mediterranean Sea developed, which brought to light southern Europe and northern Africa. Mammals dominated the animal life of that period. The primates, the structural ancestors of man, roamed over much of what is now Europe and Asia. The great ice age came in the Pleistocene period, one of the later divisions of the Cenozoic era. Huge ice sheets covered about 8,000,000 square miles of the earth's surface. The ice mass advanced and melted away at least three times over northern North America, northern Europe, and northern Asia. Lake beds such as the Great Lakes were scoured out, mountains were worn down, and huge earth deposits were left where the ice melted. The ice age not only changed the earth's surface but also greatly altered plant and animal life in the regions that it covered. Many species were destroyed and were succeeded by forms that were appreciably different in looks and habits from their ancestors. Man was forced to seek shelter and to make clothing for protection from the cold. Likewise, many tropical plants and animals gave way in Europe and northern North America to types that could withstand the cold.

More Recent Changes in the Earth's Surface. Hundreds of millions of years have elapsed since the dawn of geological history and great changes have occurred in the earth's surface. A careful

study of plant and animal life on different continents shows that some, now widely separated, at one time were connected. For example, Australia was connected with Asia and with Antarctica, and South America and Africa presumably were united at one time. Antarctica had a much warmer climate once, as is evidenced in the remains of vegetation found in rocks. There is abundant proof that the continents of the Northern Hemisphere were connected rather recently. Since the glacial period, the British Isles were for a time a part of Europe and, since the beginning of legendary history, Spain and Italy were connected with Africa. Even within the period of written history, which by comparison is almost neglibible in length, there have been noticeable changes in the topographical features of the earth. For example, the Mississippi River adds a mile to its delta each 16 years; the Yorkshire coast in England is being eaten away at the rate of 7 feet each year, and Niagara Falls recedes, on the average, 3 1/10 feet a year.

2. THE ORIGIN OF LIFE

Man and Evolution. Explanation of the origin of life is one of the most complicated and disputed problems in the study of the history of man. The study of the secrets of life origin has been retarded by the fact that for generations it was tabooed. After much hesitation, scientific explanation of the origin of the earth has been tolerated, but life holds a sacredness before which man has stood in reverence, hesitant, if not actually afraid, to probe. The so-called "conflict" between science and religion is essentially a conflict between extremists on both sides, scientists as well as theologians. Most open-minded people agree with the eminent scientist David Starr Jordan when he says: "Is not creation by evolution a far more exalted conception than any creation by feat imagined of old? And does it not reveal a Godhead infinitely worthy of obedience and adoration?" Man has had an explanation of his origin that varies in accordance with the advancement of his civilization. As he progressed, primitive explanations were discarded for views more in keeping with his intellectual horizon.

Primitive Stories of the Creation. Basically, the stories of the creation all attempt to prove the superiority of man over the other animals and to establish immortality. Many of the early accounts of the creation try to prove that man was made of clay through the

handiwork of a god. The Bible contains the story that man was shaped from common clay and that God breathed into his nostrils the breath of life. According to an old Babylonian legend, the god Bel cut off his own head and the other gods took his blood, mixed it with clay, and produced man—a creature partly divine because he possessed the blood of a god. Some Australian primitive black men believe that the creator molded human forms from a common substance and breathed into them the breath of life. In Greek mythology, Prometheus is recognized as the creator of man as well as of other animals. One of the *Upanishads* describes a procreator: "Verily, he had no delight; one alone had no delight; he desired a second. He was, indeed, as large as a woman and a man closely embraced. He caused that self to fall into two pieces; therefore arose a husband and a wife. . . . " Similar stories can be found among primitive people in New Zealand, Tahiti, Burma, and Siberia.

The Scientific Approach. Absurd as the above accounts may be, one must admit that scientists have not yet unlocked the secrets of life. However, certain fundamental conditions have been agreed upon as necessary before life could have appeared. There must have been an abundance of water, a suitable climate, and an available food supply, in order to have made life possible. Carbon, hydrogen, sulphur, oxygen, phosphorus, nitrogen, and a dozen additional elements are essential to life, but the efforts of scientists to combine these in order to produce life artificially have been unsuccessful.

Scientific Theories as to the Origin of Life. There are two important hypotheses advanced to explain the origin of life. The vitalistic theory holds that life did not originate on earth but that it came from some exterior source. Lord Kelvin, the English scientist, says in support of this theory, that life came to the earth from some other planet or perhaps from the sun. This does not explain the origin of life but makes it remote and beyond our power to investigate. Another theory, to which most scientists subscribe, is the mechanistic theory. Supporters of this hypothesis claim that life came as a natural combination of certain elements and that the many types of animal life which we have today are the result of a process commonly called *evolution.*

Evolution before Darwin. The popular conception of evolution is that man descended from a monkey and that this theory was

originally advocated by Charles Darwin. Evolution is not a haphazard conclusion of a single individual, nor is it limited to one field. Evolution is a broad and inclusive explanation of the whole life process, of which man is merely a part. It is based upon studies in embryology, paleontology, comparative anatomy, as well as many other fields, and is the work of many eminent scientists. In evolution, there are several important implications. The time element must be given consideration, because it is only from a long-range point of view that the process can be measured. Also, man is considered as the "measure of all things." Human well-being is a prime consideration in social philosophy. The ancient Greeks advanced a theory that has been termed "the anticipation of nature." Aristotle (384–322 B.C.) discussed the idea that worms and insects originated in mud through spontaneous generation. He observed an ascending series of species, ranging from the simple to the complex. Thales (624–548 B.C.) believed in the aquatic origin of life and Democritus (3d century B.C.) suggested the idea of natural selection. There is evidence in these early theories of three fundamental laws of scientific evolution: the gradual development of life, the precedence in time of plant life over animal life, and the gradual replacement of imperfect forms by those which are more perfect.

Augustine (354–430) believed that from the beginning there were two forms of living things: one planned by God and another which was latent but which gradually became active through physical environment. Bruno (1548–1600) argued that man was the culmination of a development from lower forms through many causes—habits, orders, manners—and that through changes in temperature and surroundings different genera of things appear. Francis Bacon (1561–1626) threw off the yoke of scholasticism and introduced a scientific procedure of investigation. Descartes (1596–1650) described the physical universe as a mechanism governed by physical laws. Leibnitz (1646–1716) contended that "all natural orders of being present but a single chain in which the different classes of animals, like so many rings, are so closely united that it is impossible either by observation or imagination to determine where one ends or begins."

Maupertuis (1698–1759), one of the "speculative evolutionists," wrote that "evolution advances by fortuity, by chance

combinations of hereditary elements which produce new characters." Diderot (1713–1784) claimed that the term *survival of the fittest* applied to parts or particles of the entire organism rather than to the whole. Erasmus Darwin (1731–1802), grandfather of Charles Darwin, put forth the theory of transmission of acquired characters. "All animals," he declared, "undergo transformations that are in part produced by their own exertions in response to pleasures and pains, and many of these acquired forms or propensities are transmitted to their posterity." Charles Darwin had all these ideas upon which to build his theories.

Charles Darwin. Charles Darwin (1809–1882) advocated the theory of "natural selection," of fitness to environment: the camel for the desert, the goat for the mountain, the fish for the sea, and the birds for the air. He tied together the earlier theories, that species of plant and animal life are descended from earlier and less complex types, that all organic life is developed from one-celled bodies to man, the most complex, and that man descended from lower primates. Furthermore, he popularized the theory of evolution by presenting it to the reading public in book form. Two of his many books, *The Descent of Man* and *The Origin of Species*, were widely read, and evolution became the subject of popular conversation.

Evolutionists since Darwin. Charles Darwin did not begin nor did he finish the work on the theory of evolution. Mendel (1865) adduced evidence supporting the sudden production of new species through mutations. Dr. Henry F. Osborn, the leading vertebrate paleontologist of this age, gave a resume of his lifelong study of evolution to the National Academy of Sciences on Nov. 16, 1931. He contended that evolution is creational rather than variational, that it does not come spontaneously without anything to evoke it but as a reaction to external stimuli. Life, he further stated, tends to borrow energy in order to resist energy, and organs develop before there is any actual need for them, rather than after the need arises. Dr. Osborn admitted that his conclusions were not final. However, they represent centuries of work and progress in a very important scientific field.

Criticisms of the Theory. The clergy opposed strenuously the theory of evolution. Many religious leaders insisted that the story of the creation found in the Bible should be accepted literally,

without question. The present tendency is toward a reconciliation between science and religion. Serious studies on the development of the Christian church by members of the clergy show the changes that have taken place in Christianity since its organization. Isaiah's prophecy, the teachings of Paul, St. Augustine's *City of God*, and the Protestant Reformation have changed fundamentally the doctrine of Christianity.

The argument is not entirely on the side of the scientists. The clergy still have a recognized right to question some of the scientific theories that have not been proved. After all, the theory of evolution is only a highly valuable hypothesis upon which to work for more definite conclusions. The practical, although perhaps unscientific, person is baffled with many questions that the scientist has not answered conclusively. How did the first eye, the first leg, or, for that matter, the first anything, appear? Where is the missing link that connects man with the lower forms of animal life? These are legitimate questions but they are difficult to answer. Everyone should visit the Museum of Natural History in New York City and see the convincing display of the evidences of evolution. There is a collection of toes showing the development of the hoof of the modern horse from a five-toed foot belonging to an animal about the size of a Saint Bernard dog. There are also collections showing the evolution of the hand, the jaw, and the brain case.

From Amoeba to Man. Steps in the development of life from the one-celled protoplasm, the physical basis of life, to the more complex forms can be traced. Protoplasm has eight distinguishing characteristics: chemical composition, physical properties, metabolism, growth, reproduction, rhythmicity, variability and conductivity, and adaptability. The earliest forms of life must have developed in water; they were jawless, limbless, and, instead of bones, had cartilage for skeleton. Fishes with skeletons, paired fins, and tooth-bearing jaws appeared next. Amphibians—land dwellers with legs, but raising their young in water—and those reptiles which laid their eggs on land appeared in the order named.

Then mammals, a much higher form of animal life, took precedence over the earlier forms and still continue to dominate the animal kingdom. They were warm-blooded and hairy, bore their young alive, nursed them, and had a much larger brain capacity

than the earlier forms. The early primate group lived in trees, and this necessitated the development of agility and coordination. The grasping of branches of trees between the finger and the thumb developed the hand with flat fingers and nails instead of claws. The sight sense developed in response to greater demand made upon the eyes, which came to be located so that both were directed forward and not sidewise. Accordingly, there was a decrease in the size of the muzzle and nostrils, which developed a face instead of a snout. The anthropoids, or manlike apes, became more erect in posture and more at home on the ground than were their primitive ancestors. The gorilla, for example, has many of the characteristics of man, but may not be his direct ancestor. He could be relatively degenerate, as compared with the direct ancestor of man, for the evolutionary process includes retrogression as well as progression. Nevertheless, chemically there is a close likeness between human and gorilla blood, and the blood of man has a greater similarity to that of the monkey than to that of any other animal.

Man is more successful as a ground dweller, although there is no more difference between man and the gorilla in that respect than there is between the gorilla and the tarius, a primitive type of the same order found in the East Indies. There are, however, far-reaching differences between man and these more primitive types. The difference in posture, in arm length, in the character of teeth, and in brain capacity are significant, but it is the power of articulate speech that gives man the decided advantage that has enabled him to develop in culture. He has the ability not only to create, but also to preserve and transmit culture, which the lower forms of animal life have not developed.

Life as Represented in the Geological Periods

I. *Archeozoic period* (1,500,000,000 years ago)
No clear record of life but some evidence that it might have existed in unsettled form.

II. *Proterozoic period* (900,000,000 years ago).
A few scattered fossils found. They are chiefly primitive invertebrates.

III. *Paleozoic period* (500,000,000 years ago).
1. Trilobites.
2. Corals and moss animals.
3. Scorpions, lungfishes, and land plants.

4. Numerous kinds of fish, including sharks.
5. Amphibians and primitive seed plants.
6. Reptiles and coal ferns.
7. Primitive vertebrates and insects.

IV. *Mesozoic period* (age of reptiles, 200,000,000 years ago).
1. Many reptiles, including dinosaurs.
2. Flying reptiles and birds.
3. Gymnosperms, flowering plants, and grass.
4. First mammals.

V. *Cenozoic period* (age of mammals, 50,000,000 years ago).
1. Modern mammals.
2. Monkeys, apes.
3. The ape man.
4. Neanderthal and Cro-Magnon man.
5. Contemporary races.

Review Questions

1. What conflict is there between science and religion on the origin of the earth? To what extent is this justified?
2. Outline the scientific theories on evolution from the Greeks to Darwin.
3. What are hypotheses? Are they truly scientific?
4. Enumerate the geological periods and state what happened in each.
5. What evidence is there that the earth's surface is changing today? Of what importance is this?
6. Why has there been so much opposition to the theory of evolution as applied to man?
7. Is it possible to study history intelligently without accepting the general principles of evolution? Why?

Problems

1. Make a list of the issues upon which the controversy between science and religion rests. Evaluate them. Make a list of the great religious leaders who have contributed to science and of the great scientists who have been outstanding churchmen. Can you draw any conclusions from this?
2. Construct a thorough definition of evolution. Give the steps in its development showing who was responsible for each. Secure a copy of Bryan's speech on evolution delivered at the Scopes trial in 1925. Evaluate it.

Bibliography

Boas, F., *General Anthropology* (Heath, 1938), 36ff.

Cambridge Ancient History (Macmillan, 1923–1935, 10 vols.), I, 1–3. The Cambridge histories are very detailed and complete.

Chamberlin, T. C., *Origin of the Earth* (University of Chicago Press, 1916). A discussion of the various theories as to the origin of the earth.

Kroeber, A. L., *Anthropology* (Harcourt, Brace, new ed., 1934). A standard textbook. Good for general reference.

MacCurdy, G. G., *Human Origins* (Appleton-Century, 1924. 2 vols.), I, 1–2 Good account of the early history of man.

Moulton, F. R., *The World and Man as Science Sees Them* (University of Chicago Press, 1937). A scientist's interpretation of man and his environment.

Newman, H. H., and others, *The Nature of World and Man* (University of Chicago Press, 1927). An important work. Good short accounts by specialists.

Osborn, H. F., *From the Greeks to Darwin* (Scribner's, 1929).

———, *Origin and Evolution of Life* (Scribner's, 1917). Written by one of the best known authorities in the field.

Perrier, E., *The Earth before History* (Knopf, 1925). One of the best general accounts of the early history of the earth.

Schmucker, S. C., *Man's Life on Earth* (Macmillan, 1925). A popular account. Interesting for a beginner in science.

Snider, L. C., *Earth History* (Century, 1932). Excellent.

Turner, R., *The Great Cultural Traditions* (McGraw-Hill, 1941, 2 vols.), I, 1. A fresh and vigorous approach to early culture.

Wells, H. G., *Outline of History* (Macmillan, 1920, 2 vols.), 1–12. Popular but thought-provoking. After reading books of a more specialized nature, it is refreshing to turn to Wells and read his account.

CHAPTER III

Prehistoric Man

1. GEOGRAPHY AND HISTORY

Man and His Environment. Man has been influenced greatly by environment. His appearance, his actions, and the development of his mentality depend, to a considerable degree, on geographical influences. These have been neglected, in the study of man, because his surroundings are so much a part of the daily routine that they have been taken for granted or else overlooked altogether. Nature works slowly, but over long periods of time great changes are made. The earth's surface is constantly changing and, in turn, man's general character is being molded. Human geography is comparatively a new study, but it is assuming rapidly a place of importance in the history of mankind.

Civilization and Climate. Geographical location and climatic factors play an important part in the development of civilization. The peoples of ancient Chaldea, because of the protection of desert, mountain, and sea, progressed, while their neighbors suffered. England has escaped invasion many times because of her insular location, while Belgium, exposed on three sides, has been the scene of many a bloody battle. Geographic surroundings help to determine the extent of man's intellectual accomplishment: the development of a high form of government, scientific progress, and the character of his religion. Climate sets limits and helps to determine which plants and animals will thrive in a particular location. It influences man's energy and efficiency; it sometimes dictates the nature of his occupation and the type of clothing that he wears; and it even has some effect on his character. Professor Ellsworth Huntington points out that there is a close similarity in the dis-

tribution of civilization and of the frequency of changes in weather due to cyclonic storms. About 60 per cent of the human race lives in the northern subtropical monsoon and cyclone areas. Advanced cultures have been limited almost entirely to these regions.

Limitations. Geographical influence on mankind can be overemphasized. Dr. Huntington gives us a word of warning. "It" (geography) "is not the cause of civilization, for that lies infinitely deeper. Nor is it the most important condition. It is merely one of several, just as an abundant supply of pure water is one of the primary conditions of health. Good water will not make people healthy, nor will a favorable climate cause a stupid and degenerate race to rise to a high level."[1] However, geographical conditions must be considered among the contributory factors in cultural advancement. They provide the natural equipment, but they do not determine the degree of progress.

2. EARLY TYPES OF MAN

Earliest Man. Just where or how man first appeared is undetermined and may always remain unknown. Evidence has been unearthed to support the theory that he developed from a lower type of animal, but there is not enough proof to make the story complete. There is evidence to prove that man has lived on this planet for more than a million years, but we cannot be certain as to the appearance of his ancestors. There are conspicuous differences between man and existing manlike animals. Man is the only type of the species to which he belongs that is a successful ground dweller. Since he walks well, runs swiftly, but does not climb well or swim naturally, he must have had a long line of land-dwelling ancestry. Man walks on his toe and heel, using his big toe as a lever, whereas the ape walks flat-footed or on the outer side of his foot. The direct ancestor of man very conceivably lived chiefly on the ground and hid among rocks, instead of seeking a home and protection in trees.

Peking Man. The Peking man, *Sinanthropus Pekinensis*, adjudged by G. Elliot Smith the oldest known specimen of a type similar to man, was found in 1929 by Pei, a young Chinese paleontologist. Available evidence indicates that the Peking man lived more than 500,000 years ago. Traces of fire and stones obviously

[1] *Civilization and Climate* (Yale University Press), 9.

worked into tools were found in the same stratum and constitute the first known human artifacts in history.

Java Ape Man. A skullcap, two teeth, and a thighbone, supposedly the remains of *Pithecanthropus erectus*, walking ape man, were found in Java by a Dutch army surgeon in 1894. The Java ape man lived in the early Pleistocene geological age, or about 500,000 years ago. The size of the brain case, 940 cubic centimeters, is about halfway between that of a chimpanzee and that of a man. The head, according to experts who have made a study of the remains, was set far forward on the neck. The thighbone shows that



FIG. 1.—Early types of man. Left to right: *Pithecanthropus erectus*, Piltdown man, Neanderthal man, and Cro-Magnon man. (*Courtesy, American Museum of Natural History, New York.*)

this ape man was well adapted to standing erect, and that he stood about five feet six inches in height. Presumably, he was not the ancestor of man but resembles him more than does the ordinary ape. Fragmentary remains of a gigantic new-human (*Meganthropus*) have been found recently in Java. He was larger than any known gorilla and possibly was older than *Pithecanthropus erectus*.

Heidelberg Man. Heidelberg man, *Homo Heidelbergensis*, is a closer link in the fragmentary chain of human ancestry than is the Java ape man. He lived in the second interglacial period, something like 300,000 years ago. He had a brain capacity of about 1,000 cubic centimeters and was about one-fourth larger in stature than the average man. He possessed teeth that were strikingly human, but his chin was poorly developed and it is doubtful that he had the power of articulate speech.

Piltdown Man. The Piltdown skull, which represents *Eoanthropus*, the dawn man, was found in Sussex, England, in 1911. He is supposed to have lived in the third interglacial period or about 125,000 years ago. He had a brain capacity of approximately 1,300 cubic centimeters. The face lacked the big eye ridge found in the earlier specimens; it had an unusually powerful lower jaw and possessed a very thick skull bone, on the order of an anthropoid ape's. In the same rock stratum were crude stone implements, indicating that Piltdown man had made considerable progress.

Neanderthal Man. Definite conclusions concerning the types just mentioned are restricted by the scarcity of material evidence. When we come to Neanderthal man, *Homo Neanderthalensis*, we are on much safer ground. There are many specimens of this type found in Palestine, Austria, Spain, France, Belgium, and Germany. Neanderthal men flourished about 100,000 years ago. They had low sloping foreheads, heavy jaws and teeth, slightly developed chins, and protruding jaws. They lived in caves, used fire, killed game for food and clothing, and made crude stone axes.

Cro-Magnon Man. Chronologically, Cro-Magnon man came next. He was so nearly like modern man that he has been classed by anthropologists in the same group, *Homo sapiens*. He had a large, powerful frame, a long narrow skull with a brain capacity of 1,600 cubic centimeters, a fine forehead, a thin nose, and a well-developed chin. He existed about 35,000 years ago, lived in caves, and was a great hunter. Cro-Magnon man was artistic. Pictures with colors still distinct can be found on the walls of caves that he occupied. Body ornamentations made of teeth of wild animals and shells were used extensively. Pointed spears, awls, knives, and harpoons were property commonly used.

Transition to Modern Man. Modern man differs from the earlier types in at least three basic structural conditions. His skeleton is less massive and much better adapted for speed and agility. The brain case is longer and at the same time broader. There is available no specimen that denotes the immediate transition to modern man and, as a consequence, there is much confusion as to how and when that transition took place.

Racial Types. The grouping of mankind into races is based upon biological traits that individuals may have in common, such as stature, character of lower jaw, nasal form, color, character of

hair, and head shape. Character of hair and head shape are considered as the most basically important distinguishing features for racial grouping. Head shape is measured by the cephalic index, that constitutes the ratio of the length to the breadth of the head. Obviously, there are no pure races, but there are four main classifications: (1) Australoid, (2) Mongoloid, (3) Negroid, and (4) Caucasian. Pygmy peoples of central Africa, Australia, and the Malay Archipelago are modern representatives of the Australoid race. Their chief characteristics are long heads, dark skin, woolly hair, and short stature. The Mongoloids are mainly Asiatic and are round headed, yellow skinned, short in stature, and have straight hair. The Negroids live mainly in warm to hot climates. They have a long head, forward-thrusting jaw, tall stature, black or very dark brown skin, and woolly hair. The Caucasians, generally identified with Europe, have a long head, short stature, and medium cranial capacity.

Races of Europe. The peoples of modern Europe are divided, more for the sake of convenience than for any other reason, into three classifications: (1) the Mediterranean, (2) the Alpine, and (3) the Nordic. The Mediterranean race, since Neolithic times, has dominated the Mediterranean basin and soutwestern Europe; the Alpine group seems to have migrated into central Europe from the region of Anatolia; and the Nordics dominated the region around the North and Baltic seas. There has been promiscuous mixing of all these types for centuries and, in addition, new elements have been added until racial purity does not exist. Peoples from Europe, because they have exerted a tremendous influence all over the world through colonization and economic activities, must be given more prominance than most of the others.

Amerind Race. Within approximately the last 15,000 years, a migration of Mongoloids from Asia took place via a land bridge to Alaska, and then southward into the Americas. From all indications, this covered a long period of time, since at least five strains of Mongolians have been recognized in the Americas. There is evidence, also, that peoples came to the Western Hemisphere from the islands of the South Pacific.

The Racial Factor in the Development of Cultures. "Racial determinists"—The National Socialist Party in Germany, for example—contend that the racial factor is the most important in

determining progress. Anthropologists are divided on the issue but, in the main, they are opposed to such extreme interpretations as those advanced by the Nazi. Race is a matter of physical anthropology and has little to do with cultural traits. The general theory of racial superiority is an old one. It is based essentially on an aversion to strangers or on an inferiority complex; or it is used as propaganda to promote conquest and domination of other people. There is very little proof to support the argument of racial superiority insofar as cultural progress is concerned.

3. THE PRELITERATE AGE

The Eolithic Age. The preliterate or stone age, for convenience, is divided into three periods: Eolithic or Early Stone Age, Paleolithic or Old Stone Age, and Neolithic or New Stone Age. The tools that man used characterize each period and furnish the chief source of information concerning it. There is scant evidence about the Eolithic period. Man may not have made tools in this period, but he used them. The *eoliths,* stone tools attributed to this period, were rounded on one side, roughly chipped on the other, and used for pounding. Meager as this evidence is, it indicates man's cultural advancement beyond a state of complete barbarism.

Paleolithic Culture. Hunting was the chief means of survival for man in the Paleolithic Age, which began, roughly, 300,000 years ago and ended about 15,000 years ago. The man of that period lived in caves, made stone tools, and fashioned clothing from skins of animals. The chief tool was the "first hatchet" (*coup de poing*), an almond-shaped stone about six inches long, three inches wide, and one inch thick, with one sharpened edge. It could be used as ax, hammer, knife, scraper, or dagger. Later in the Paleolithic Age, bone and horn tools appeared. Fire, which was used for light, heat, and protection, was produced artificially. Art was developed in cave painting and sculpture. Forms of animals, the favorite subjects, were painted on the walls of caves or engraved on tools and weapons. The representation of the human form was a later development. The male figure was portrayed as nude, while female forms were shown wearing skirts made of skins of animals. Statuettes depicting both man and animals, and representing the work of the latter part of the period, are found in abundance. These efforts at art, although naturally crude, reveal a marked cultural

advancement. Man had reached a creative stage, in which thought could find expression for its own sake. This was an interpretation of human experience.

Importance of Paleolithic Culture. During the Old Stone Age, man was a hunter and a wanderer. Many of his dangers and difficulties were overcome with blades and with flame. Man declared his need and gloated over his strength which he expressed in art. Vanity was displayed in ornaments. In the long years of the Old Stone Age, man acquired many of the basic characteristics that made progress possible. He made tools, controlled fire, and fashioned clothing and shelters. He developed a social order, law,

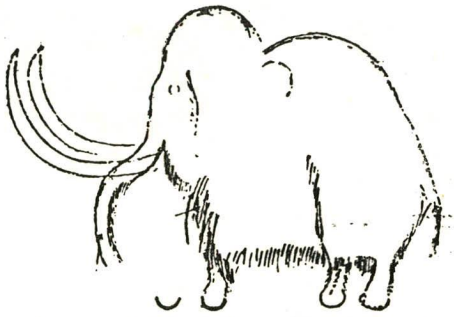


FIG. 2.—Engraved outlines and hair underlying the painting of a mammoth from the wall of the *Galérie des Fresques, Font-de-Gaume.* (*Courtesy, American Museum of Natural History, New York.*)

justice, and religion. He produced art, told stories, and played games.

The Neolithic Age. The Neolithic Age began about 15,000 B.C. and ended with the age of metals. This transition took place at varying times in different places. For example, copper was used in Egypt about 4000 B.C., but it did not appear in Scandanavia and in Britain until around 2000 B.C. Although Neolithic culture seems to have been widely dispersed, its earliest evidences were in northeastern Africa and southwestern Asia. Neolithic man profited through experiences of earlier cultures and added new ideas. The invention of the bow and arrow made hunting easier. The large hewn-stone ax, with a handle, and smaller knives made of flint and bone were introduced. Instead of depending entirely on skins of animals for clothing, Neolithic man used flax and wool from which to produce threads for weaving into cloth. He built houses

from hewn logs. Villages were constructed in lakes on long wooden platforms, supported by thousands of piles, to afford protection from enemies and wild animals.

Perhaps the most wonderful accomplishment of the Neolithic Age was the beginning of agriculture. Before that time, man lived entirely on animal flesh, wild fruits, and wild vegetables. Now he settled with greater permanence in one place and cultivated grain, beans, fruit, and flax. The transformation from the life of a nomad to that of a farmer is one of the most significant events in the whole history of man. In the hoe culture period, the women did most of the farming while men did the fighting and continued to hunt. Rudiments of trading and mining were in evidence and the domestication of animals began, with the dog as one of the first, followed by the cow, the sheep, and the ass. In short order, other animals were domesticated, including the pig, the camel, and fowls. There are signs of elaborate burial ceremonies, which is an indication of belief in future life. Late in the Neolithic period, hugh monuments and tombs were erected. The menhirs, monumental perpendicular shafts, suggest a large open-air temple. Stonehenge, on Salisbury Plain in southwestern England, is a good example. The stones, in a large ring, 106 feet in diameter, are joined by lintels. Five great sets of stones in post-and-lintel construction are placed within the ring. This area of monumental stones possibly provided a great open-air meeting place for religious ceremonies of some sort.

The American Indian provides a good example of neolithic culture. The Iroquois were builders, not with stone, but with wood and bark. Some of their dwellings were over 100 feet long and provided homes for 100 persons or more. The women cleared the forests and planted and harvested corn, beans, melons, and squashes. Fields belonging to the village were cultivated on a communistic basis. The people had an elaborate political organization. The tribe was divided into two phratries, each containing four or more clans, which, in turn, were divided into a number of maternal families. The tribe was ruled by a chieftain and the various chieftains represented their respective tribes in a league, which was the governing body of the confederated organization. Other examples of neolithic culture are the "kitchen-midden" people Scandinavia, who left great heaps of shells and bones near their villages, and the lake dwellers of Switzerland.

Age of Metals. The Neolithic Age was followed by the age of metals, which was characterized by the use of copper, bronze, and iron, each of these metals predominating in turn, in the order



FIG. 3.—Stone implements representing the various phases of the Paleolithic or Old Stone Age in western Europe. (*Courtesy, American Museum of Natural History, New York.*)

named. The transition from the stone age to the age of metals marked an important milestone in the progress of man. To produce tools of wood and stone took very little creative thinking, but to smelt ores and pattern implements from metals required abstract thinking and planning. Primitive people considered the smith to be

more than an ordinary man, a sort of wizard with skill little short of magic. In Greek and Roman mythology, the metalworker was deified as Hephaestus and Vulcan, respectively. In predynastic Egyptian graves, copper needles have been found that date back to 4000 B.C. By the middle of the 4th millennium B.C., copper tools and weapons were common in Egypt.

To make bronze, an alloy of copper and tin, required more skill; but finer and more durable weapons could be made from it than from copper alone. Bronze was known in the Near East by 4000 B.C.; in Spain and Italy by 2000 B.C.; in Egypt by 1580 B.C.; and Aegean civilization is known as civilization of the Bronze Age.

Iron Craftsmen. The use of iron, still more important, introduced the age in which we are living. The oldest known iron knives date back to 1350 B.C. The Hittites, who lived along the shore of the Black Sea, east of the Halys River in Asia Minor, were pioneers in the smelting of iron ore. Their products rapidly spread eastward into the Orient and westward into the Mediterranean countries. Early iron culture in Europe is divided into two important periods: the Hallstatt, which had its center of development in the Austrian Tyrol; and the period of a culture with its center at La Tène, which was located near Lake Neuchâtel in Switzerland. The Hallstatt smiths specialized in making swords, daggers, spears, and arrows for use in hunting and in warfare; and in making razors, knives, sickles, and axes for domestic use. They also made many articles for the ornamentation of their bodies, such as bracelets, rings, anklets, and brooches, which show skill in workmanship and an artistic sense. Plowshares with metal points, of a type similar to those used by our colonial ancestors in this country, were introduced.

Implements and Inventions. The smith used anvils, hammers, and tongs much like those of today; and the carpenter had awls, saws, planes, files, and hammers that he used in his work. Besides iron tools, craftsmen of this period introduced other epoch-making inventions. The potter's wheel, metallic currency, numerous wheeled vehicles, and a rotating mill to grind grain were all introduced and were not replaced or improved upon to any extent for many epochs.

Importance of Neolithic Culture. The period that marked the introduction of plant cultivation, of the domestication of animals,

and of the domestic crafts and arts may be aptly described as the "first great age of progress." In fact, few additional basic changes were made after that until the time of the Industrial Revolution in the 18th century. Aside from the material development that he had attained, it is necessary to consider what primitive man thought and how he acted.

4. PRIMITIVE CUSTOM AND THOUGHT

Basis of Study. In the search for the origin of human intelligence, we are confronted with the discouraging fact that there is a psychological, as well as a biological, missing link. About the only approach to this phase of the subject is a study of the primitive peoples in existence today, with the assumption that all such peoples have similar mental traits. There are peoples in the more remote regions of the world who use the same type of implements that were used by primitive man, and it has been assumed that their customs and thoughts also are similar. For example, the Eskimo is still using a throwing stick that is very similar to the one used by man in Neolithic times.

Progress. Man is capable of profiting from the school of experience. Men of succeeding civilizations have borrowed from their predecessors and have profited from the mistakes of those who went before them. At first, progress was slow, but in recent years it has increased rapidly. Professor Robinson graphically describes this in his brilliant book, *Mind in the Making* (Harper, 1921), 83:

> Let us assume that a single generation of men in fifty years managed to accumulate all that now passes for civilization. They would have to start as individuals do, absolutely uncivilized, and their task would be to recapitulate what has occupied the race for, let us guess, at least 500,000 years. Each year in the life of a generation would, therefore, correspond to 10,000 years in the progress of the race. On this scale it would require 49 years to reach a point of intelligence which would enable our self-taught generation to give up their ancient inveterate habits of wandering hunters and settle down here and there to till the ground, harvest their crops, domesticate animals, and weave rough garments. Six months later, or half through the fiftieth year, some of them, in a particularly favorable situation, would have invented writing and thus established a new and wonderful means of spreading and perpetuating civilization. Three months later another group would have carried literature, art, and philosophy to a high degree of refinement and set standards for the succeeding weeks. For two months our generation would have been living under the blessings of Christianity; the printing press would be but a fortnight old and they would not have had the steam engine for

quite a week. For two or three days they would have been hastening about the globe in steamships and railroad trains, and only yesterday would they have come upon the magical possibilities of electricity. Within the last few hours they would have learned to sail in the air and beneath the waters and have forthwith applied their newest discoveries to the prosecution of a magnificent war on the scale befitting their high ideals and new resources. . . .

Language. The mastery of speech made it possible for man to develop culturally beyond the other primates. Human culture rests essentially on the spoken and the written word, plus the interpretations that can be made from them. Just how the discovery of the spoken word was made is uncertain. An elementary way of answering the question is to attribute it to divine origin as a natural gift to man, springing from his lips fully developed, as Athena came forth from the head of Zeus. Partial biological development of the organs of speech can be found in the monkey, the gorilla, and the chimpanzee; but the complete anatomical structure necessary for speech first appeared in Neanderthal man. The exact origin of words may never be known, although various theories have been advanced. The imitation of natural sounds, referred to as the "bow-wow" or "onomatopoeic" theory, has much support from anthropologists. Such English words as "zip," "crash," "bang," and "plop" are elementary examples of such a possibility. The gesture theory associates bodily movements with cries, which in a given locality may become standardized. There may be an element of truth in all the theories. However that may be, it is certain that without the use of language, whatever its origin, we should soon revert to the cultural level of savages.

Language Groups. Grammatical forms of expression, words with inflection, and sentences, principles of syntax, are perhaps not more than 400 or 500 generations old. It is a mistake to conclude, however, that primitive languages are simple. The average European peasant uses not more than 1,000 words, while the savages of Tierra del Fuego have a total vocabulary many times that number. The language of the Eskimo is exceedingly difficult. The Lapps have 24 words for ice. There are certain language groups that can be traced back several thousand years; for example, the Aryan, which is distinct in the Danube, Dneiper, Don, and Volga river valleys; the Semitic, which includes Hebrew, Arabic, Abyssinian, ancient Assyrian, ancient Phoenician, and Aramaic;

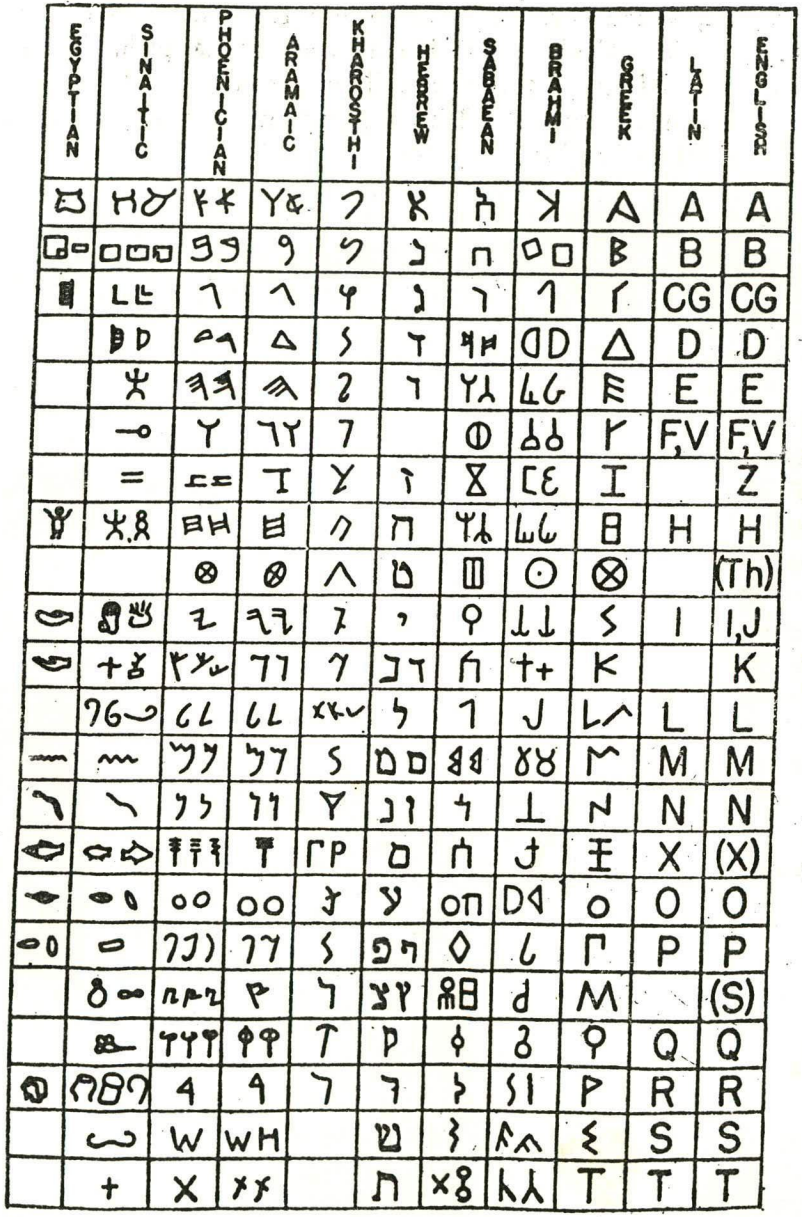


FIG. 4.—The alphabet. (*Courtesy, R. E. Turner, The Great Cultural Traditions.*)

the Hamitic, which is made up of ancient Egyptian, Coptic, and Berber; the Ural-Altaic, which is composed of Lappish, Finnish, Magyar, and Mongol; the monosyllabic group, which includes Chinese, Burmese, Siamese, Tibetan; and numerous others that almost defy classification.

Written Language. Written language, the bridge between the present and the past, developed from spoken communication, but it came much later. There are three distinct steps in the development of writing: picture writing, ideographs (in which an idea is expressed by a glyph of only the outstanding part of the picture), and finally the phonetic or alphabet form. The written language, the means of preserving records of experience having social values, was a priceless boon to civilization. It must be rated as one of the most decisive steps in the history of civilization. Without it we could never have reached our present stage of development, and without it we could not hope to pass on what we have to future generations. Egyptians had developed hieroglyphic writing by 4700 B.C. The Phoenician alphabet was in general use by 2000 B.C.

Causes for Development of Religion. The characteristics of primitive man that promoted the development of a religion or belief in supernaturalism are conservatism, egoism, and fear. Dread of the consequences of change made him conservative. Pride, the belief in oneself, led to the search for future life and self-satisfaction. A religious experience lifts the most lowly from the depths of despair to the bliss and dignity of self-respect. An Arab beggar in prayer before his mosque becomes a ruler; the poor and lowly forget their rags and earthly discomforts when engrossed in the sublimity of their religion. Fear controlled many of the actions of primitive man. He shrank at the sound of thunder. He believed that wild beasts, storms, avalanches, disease, and death all bore malice and sought to destroy him. His defense was to seek protection from a supernatural power. Streams, storms, lightning, and disease were interpreted as spirits. There were all kinds of spirits: good, bad, beautiful, and hideous. Man sought some way to deal with those to whose mercy he felt himself subjected.

Early Religious Practices. Primitive man used many means of exploiting the spirits. One was to seek the services of a specially endowed person, or medicine man, who supposedly had control over supernatural forces. Fetishism, belief in material objects that

represented or were connected with a supernatural power and possession of which enabled the holder to attract or ward off the spirits, was widely practiced. According to this belief, a lion's hair would give courage, an eyeball would give vision, and a tiger's claw would endow a person with ferocity. These things, even though they were worthless and powerless in themselves, did help man to develop self-confidence and hence to struggle harder in his battle against many obstacles.

Evil spirits and things connected with evil spirits were labeled taboo—something to avoid. On the other hand, what was tabooed might be something good that the gods had denied to man. Primitive rulers often resorted to the practice of taboo in order to control the conduct of their followers. It served as a regulating influence, a substitute for law. Magic was practiced extensively by primitive man for the realization of certain desires by making spirits act according to his wishes. It makes use of uncanny forces in nature for the realization of human desires. The sorcerer performed good or white magic, but evil or black magic was wielded by witches.

As man's life became more complicated, his obligations greater, and his field of experience broader, the simple rites of magic and taboo were not sufficient to satisfy his spiritual needs. He recognized his dependence on nature to produce his crops, and in time of drought he offered sacrifices and psalms of praise to persuade the spirits to grant favorable growing seasons and bountiful harvests. Organizations with secret rituals were established for many purposes. The youth, when the age of puberty was reached, was put through ghastly ordeals before being given full membership in the tribe. The marriage ceremony included an appeal to spirits, imploring that children might bless the home. Burial of the dead was an elaborate ceremony to prepare the soul for its journey to the next world. Divination, methods of foretelling events through the discovery of the activities of spirits, was widely practiced. Special individuals, called medicine men, wizards, sorcerers, etc., were asked to do this because of supernatural revelations. They talked with the gods, placated spirits, treated diseases, interpreted dreams, and made rain. They enjoyed favored positions in society and often exerted tremenduous influence. From these practices, regular forms of worship developed. Worship differs from magic in that it is an expression of awe, reverence, and gratitude to the

supernatural, while magic is devoted mainly to an immediate attainment of a specific desire.

Introduction of Gods. Ultimately, gods took the place of numerous spirits. Gods were, at first, merely idealized dead men. A common practice was ancestor worship, that flourished in Egypt, in Greece, in Rome, and in the Orient. There was no marked distinction between gods and men, in the early stages of belief. The more primitive the society, the more numerous were the gods. Less important gods gradually gave way to the more important, until monotheism appeared. The transition from polytheism to monotheism took place when one god was accepted as more powerful than the others and was made supreme over them. Political rulers in primitive times often associated themselves with gods and, in some cases, were deified. Thus, the edicts of the ruler were considered to be divine. Codes of laws were frequently looked upon as having been given to a ruler by some god.

Survivals of Religious Ceremonies. The acceptance of a god did not displace entirely all the primitive religious practices. Many of them still exist but, generally speaking, they have lost much of their solemnity and continue only as festive trivialities. The Maypole dance, a game for the modern child, was originally a plea to the god of youth and springtime. Autumn festivals, once important religious ceremonies, are still held in many lands, not for the sake of religious symbolism, but in the spirit of gay festivity.

Importance of Religion to Primitive Man. The life of primitive man was dominated by religious and mystical practices. All his adventures were carried out under proper religious auspices. Industry was honeycombed with religious practices. Farmers spent almost as much time in trying to satisfy the gods connected with their occupation as they did in tending their crops. Leaders, political and military, tried to establish the belief that they were aided by divine power in carrying out their duties. Primitive jurisprudence was controlled by supernaturalism, and education consisted of little more than learning religious formulas.

Origin of Art. Art, which is the representation of an aesthetic sense through the medium of the material, affords an interesting approach to the study of primitive man. Generally, art is a luxury, but its presence indicates an inward desire that cannot be satisfied by the material. It holds a balance between a dream and the reality

and expresses an attempt to give reality to a mood. According to Professor John Dewey, "Distinctly fine art . . . occurs when activity is productive of an object that affords continuously renewed delight." The poet Byron (Who can better express the artistic desire than a poet?) said "art is the reconstruction of experience in favor of a subjective satisfaction." When primitive man began to practice the finer arts, he broadened his horizon and demonstrated a desire to portray things and people.

Uses of Art. The first implements made by man were barely practical, but when time could be spared from the arduous task of obtaining the bare necessities of life, he began to put decorations on the tools and weapons that he made. Forms of animals were carved on the handle of the dart thrower and decorations were wrought on the handles of knives. Primitive man also found more time for painting pictures. Some of these may be seen on the walls of caves in southern France and in northern Spain. The pictures were crude, as one might expect, but they show considerable skill in portraying animals in action.

Art was used in the preparation of various religious ceremonies as well as for the decoration of implements. Religious and moral rites utilized art in various forms and, for a long time, practically dominated it. Pictures and symbols were supposed to have a special attraction for the spirits. Animals that the hunter hoped to kill were carved on the spear or the dart thrower to ensure a better aim. Primitive man decorated his body with paint and beads of various kinds for differen occasions. Certain colors and designs were used in preparation for ar, others for peace, and still different designs were used to denote love. Early art seems to have been used primarily for utilitarian purposes; art for purely decorative use belongs to a later period.

Social Divisions. The idea that man was originally without any social system has been discarded. Biological and psychological forces have brought mankind together into a social relationship that appears to be almost as old as man himself. It is difficult to make a complete separation between social and political orders; they almost inevitably overlap and, to a great degree, they depend upon each other. In primitive society there are three more or less distinct types of groups: the family, which is based primarily upon biological factors and serves educational and economic functions;

the clan, which is pseudobiological and exercises judicial and economic powers through a number of ceremonial activities; and the tribe, which is territorial, not dependent entirely upon blood relationship, but more upon political responsibilities.

The Family. The family is one of the oldest of human institutions. Some anthropologists claim that it is inherited from the alike ancestors of man. It is true that similar characteristics are found among certain types of animals, but the social aspects are more highly developed by man. Professor R. H. Lowie affirms that in the lowest cultural strata matrimonial relations are found that would be rated as exemplary by even a mid-Victorian. This would indicate that monogamy is a very early family characteristic. The biological factor of sexual relationship is the foundation stone of the family The father was the stronger and, as he was not encumbered with the burden of childbirth, he assumed the role of protector of the family. Responsibility became one of the most clear basic of human qualities. Cooperation enabled men to conquer obstacles that otherwise would have been insurmountable; family was one of the most important causes for the establishment of coherent unions.

Aids in the Development of Social Orders. Religious ceremonies helped in bringing about social cohesion. Orderly arrangements and unity of action were obtained. Man was exhorted to consider his fellow men and to develop an ethical relationship. A common meeting place was provided and a unity of thought and action was obtained. Warfare, which was very prevalent among barbaric people, was influential in developing social consciousness and common interest. The idea of mutual aid and common interest developed very slowly. Even in the 20th century, an ideal social relationship is a goal rather than an accomplishment.

The early social orders were dominated by custom, and arbitrary social life became conventionalized. Change of environment seldom occurred; hence, conquest by foreign people was often the chief cause for change. Customs that were generally accepted controlled the life of the people and these did not materially change until family government gave way to a larger organization.

Origin of Political Institutions. Some form of political organization has existed since mankind was in its infancy; it has changed in form and scope but never has disappeared. The father of the family

was the first political administrator. He was the leader in war; he owned and controlled the property; he administered religious ceremonies, and he acted as judge in all disputes. Religion was next in importance to kinship as a basis of political organization. The family altar played a prominent part in cementing family life, and it extended into the larger political orders. The family had its altar; the tribe, and later the city, had its own temples and deities. Reverence for men who gave their lives for the common good furnished a tie that bound together succeeding generations. Warfare brought to the front leaders and, from necessity, others followed them and obeyed their commands. This was carried over into peacetimes and furnished the background for an organized state.

Early Governments. There are many theories as to the origin of political institutions, and possibly an element of truth exists in each of them. The *force theory* is one of the oldest and simplest of the explanations; belief that might makes right is still accepted. *Divine right* has contributed in establishing and stablizing political institutions. Many of the rulers and laws were divinized, or considered as having been given by some deity. This added stability and security to a government by putting it beyond the reach of man. Such practices were evident in early Egypt and persisted throughout the Middle Ages. The Egyptian Pharaoh not only considered his office as of divine origin, but he also posed as a god himself. The *compact theory* is the basis of a democratic form of government. It assumes that political institutions are artificial creations of man to serve his needs. It recognizes a responsibility on the part of both the governor and the governed. A simple form of representative government seems to have occurred in primitive society. The Iroquois Confederacy was governed by a council of chiefs chosen on the basis of merit and recalled when their services were no longer satisfactory.

Early Law. The prime motives in organizing political institutions were protection and the maintenance of law and order. The development of law, therefore, is closely associated with the development of political institutions. Personal revenge, "an eye for an eye and a tooth for a tooth" (*lex talonis*), was the first stage in the evolution of law. This was followed by the substitution of damages in the form of gold or goods in place of revenge in blood. A regular

tariff determining how much should be paid for an eye, an arm, a tooth, or a life was established. Such practices were prevalent in Babylonia in the time of Hammurabi. The modern idea of law is the assumption by a government of the obligation to punish the guilty and to prevent wrongs.

It has been noted that taboo was used in order to control social groups. Rules and regulations were regarded as divine in origin. This made primitive man a law-abiding person; to disobey a law incurred not only the possibility of punishment by rulers but also, what was more important, the wrath of the gods. In trials for the determination of guilt, the gods were called upon to make the decision. Exile and corporal punishment were the most common types of penalty. Justice, a conception of fairness, was well recognized by preliterate man. Public discussions, by specially chosen men, for settlement of disputes were common practices. The idea of a judiciary might conceivably have developed from this beginning. Compurgation—associates swearing that the accused is innocent—sometimes produced acquittals.

Education. Among primitive peoples, the education of the young was very thoroughly administered by elders. In general, it was a careful preparation for life, including respect for the elders, the chief, and the gods. Elaborate initiation ceremonies were held for each stage of progress. Youngsters were lectured, cursed, and blessed by elders appropriately dressed for the occasion. Pain was inflicted to test courage. Failure in the ceremony meant exclusion from society. Meeting all the tests satisfactorily was rewarded by admission to the status of adulthood and to tribe membership.

Estimate. The preliterate period was the longest in the history of man, perhaps 1,000,000 years or more. Compared with the past few centuries, the accomplishments of that period seem to be truly meager. It did, however, mark the beginning and beginnings are the most difficult stages. What was accomplished was by no means negligible. Primitive man created most of the implements and tools that were known before the time of the Industrial Revolution. Social and political organizations and an economic society embracing a pastoral and agricultural life were developed. Language, pictogram writing, religion, and art were all in evidence before the dawn of recorded history.

PREHISTORIC MAN

Anthropological divisions	*Human types*	*Location of remains*	*Cranial capacity, cubic centimeters*	*Approximate date B.C.*
Paleolithic (Old Stone Age)	Peking	China	975	500,000
	Java ape man	Java	940	475,000
	Heidelberg	Germany	1,000	300,000
	Piltdown	England	1,300	125,000
	Neanderthal	France.	1,600	100,000
	Cro-Magnon	France	1,600	30,000
Neolithic (New Stone Age)		Kitchen-middens (Denmark)		7,000
		Lake dwellers (Switzerland)		5,000
Bronze Age		Mesopotamia Egypt		Orient 4,000–1,800 Europe 2,000–1,000
Iron Age		Europe	1,450	Orient, 1,800 Europe, 1,000

Review Questions

1. To what extent does climate affect civilization? Give examples.
2. Has the connection between man and the lower type of animals been definitely proved? Give reasons for your answer.
3. What effect has this had on religion? Is there justification for the conflict between science and religion on this point?
4. Describe the culture of the preliterate age. What is the most notable contribution?
5. Define religion. Account for its origin.
6. What important changes have been made in religions?
7. Account for the rise of the family.
8. Define law What was primitive man's interpretation of law?

Problems

1. Taking your own community as a pattern, show in how many ways life is affected by environmental influences. Are there any examples of how man overcame environmental adversities?
2. Enumerate the modern survivals of ideas and practices typical of the preliterate age.

Bibliography

GENERAL ACCOUNTS

Barnes, H. E., *The History of Western Civilization* (Harcourt, Brace, 2 vols., 1935), 1–2. A comprehensive work. It contains a good bibliography.

Blackmar, F. W., *History of Human Society* (Scribner's, 1926), 4–6. Good for social developments.

Hedger, G. A., and others, *An Introduction to Western Civilization* (Doubleday, Doran, 1933), 7–9.

Thorndike, L., *History of Civilization* (Crofts, 1926), 3. One of the earliest but still one of the best works of its kind.

Turner, R. E., *The Great Cultural Traditions* (McGraw-Hill, 1941, 2 vols.), I, 1–3.

SPECIAL REFERENCES

Atkinson, J. J., *Primitive Law* (Longmans, Green, 1903). The origin of law and its early development.

Bendann, E., *Death Customs; An Analytical Study of Burial Rites* (Knopf, 1930). An interesting study in early religious practices.

Boas, F., *The Mind of Primitive Man* (Macmillan, 1924). A psychological study of early man by one of America's leading anthropologists.

———, *Primitive Art* (Harvard University Press, 1927). Anthropological approach.

Bogardus, J. F., *Europe—A Geological Survey* (Harper, 1934).

Childe, V. G., *The Bronze Age* (Macmillan, 1930). Very detailed and scholarly.

Coon, C. S., *The Races of Europe* (1939). Most complete study of races in the Occidental world.

Duncan, G. S., *Prehistoric Man; An Introduction to Anthropology* (Stratford, 1931). A brief analysis of the types of early man.

Encyclopedia of the Social Sciences, under "Culture," "Custom," "Collective Behavior," and "Archaeology."

Febvre, L., *A Geological Introduction to History* (Knopf, 1925). Shows the important relationship between geography and history.

Frazer, J. G., *The Golden Bough* (Macmillan, 1922, 12 vols.). A comprehensive study of folklore. There is a one-volume edition.

———, *Leaves from the Golden Bough*, edited by Mrs. Frazer (Macmillan, 1924). Everybody should read at least a part of this great work.

Gardner, H., *Art through the Ages* (Harcourt, Brace, 1926), I. One of the best general accounts of the whole scope of art.

Goldenweiser, A., *Early Civilization; An Introduction to Anthropology* (Knopf, 1923), 12–13, on early society.

Hankins, F. H., *The Racial Basis of Civilization* (Knopf, 1926).

Heard, G., *The Emergence of Man* (Harcourt, Brace, 1932), 3, on "Dawn of Culture."

Hopkins, E. W., *Origin and Evolution of Religion* (Yale University Press, 1923).

Huntington, E., *Mainsprings of Civilization* (Wiley, 1945). Part III, on "Physical Environment and Human Activity," is a recent and scholarly survey.

Keith, A., *New Discoveries Relating to the Antiquity of Man* (Norton, 1931).
Kroeber, A. L., *Anthropology* (Harcourt, Brace, 1933). A standard textbook.
Lowie, R. H., *Primitive Religions* (Boni and Liveright, 1924).
———, *Primitive Society* (Boni and Liveright, 1920). Outstanding books on these subjects.
Osborn, H. F., *Men of the Old Stone Age* (Scribner's, 1934). A scholarly and readable book.
The Hall of the Age of Man (American Museum of Natural History, 1927) A description of the exhibit showing the evolution of early man found in the American Museum of Natural History.
Wallis, W. D., *Culture and Progress* (McGraw-Hill, 1930).
Wissler, C., *Man and Culture* (Crowell, 1923). An excellent survey.

CHAPTER IV

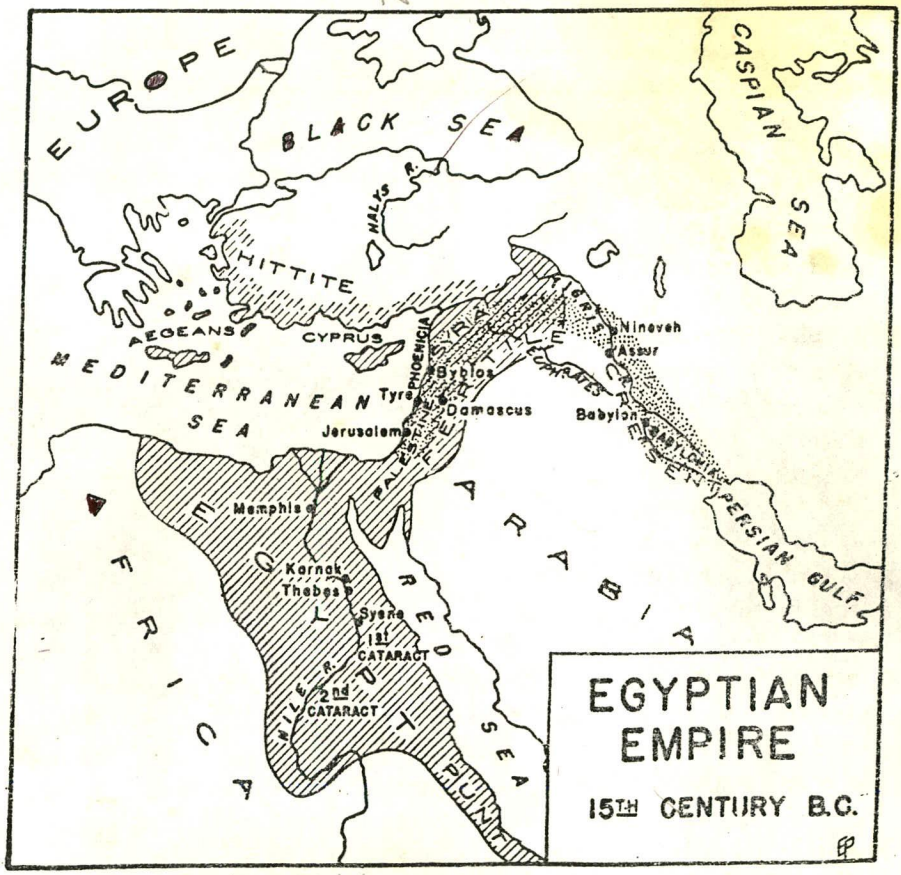
The Age of Ancient Empires

I. EGYPT—THE DAUGHTER OF THE NILE

Importance of the Nile. Within the various deposits of silt along the Nile River are remains that tell the story of all the peoples who lived in this particular region. Not only are the remains well preserved, but also the well-defined annual deposits of silt enable the archaeologist to determine the antiquity of the materials that are uncovered. Chronology, which is so important and so hard to determine in most ancient civilizations, is comparatively easy for Egypt. The Nile is the sole source of water supply for most of Egypt and, excepting a narrow fringe along the river, the soil is very dry. For the student this is a blessing in disguise. Most of the cities and tombs of the Egyptians are located a short distance from the river in the dry sand of the surrounding desert. Furniture, grain, clothing, and even human bodies are found well preserved, although some of them are thousands of years old. Nowhere else in the world has nature worked to such advantage for the preservation of the material remains of a great civilization. The sun and the Nile River virtually dominated Egyptian life.

Isolation of the Nile Valley. The valley of the Nile, from Syene to the Mediterranean Sea, the home of the ancient Egyptians, is over 500 miles in length. Limestone hills and ridges border the main valley, which averages from 10 to 12 miles in width. In early times, approaches from the outside were difficult. This enabled the natives to live a rather secluded life, protected from invasions. To the east were the rocky wastes through which only a few caravan routes extended; to the west, the barren Sahara; and to the south, the rapids in the Nile helped to isolate the whole valley.

Geography. The soil and the climate of the Nile Valley were conducive to human progress. The soil was replenished liberally each year as the river, swollen by the melting snow from the highlands and by seasonal precipitation, overflowed its banks. Irrigation was provided through this natural phenomenon, which the



people aided by the construction of dikes and reservoirs. The climate was warm, but not too hot for plant and animal life to thrive; and the long seasons enabled the planting and harvesting of two crops a year. The sluggish stream encouraged experimentation in navigation. The Egyptians took advantage of it and became pioneers in trading. They carried their commodities to neighboring countries and brought back copper, cloth, pottery, metal weapons,

and many necessary supplies. Natural conditions helped to make the Nile Valley the "cradle of civilization."

The People. In describing Egyptian civilization, too much might be said about environment. Nature has endowed other regions with favorable climate, but no civilization so old and so far advanced as the Egyptian has been found in any of these places. No small amount of credit for this marvelous civilization must go to the Egyptians themselves. It is difficult to classify them racially. Apparently, they were the result of the fusion of many different types. Stone-age remains in Egypt are numerous; yet it is not certain whether any of the peoples that they represent were the direct ancestors of the Egyptians. The traces of these earlier people cease and those of the Egyptians appear at about 5000 B.C. Racially, the Egyptians—a mixture of several types—are ascribed to the Mediterranean race. They had oval faces, deep-set eyes, prominent cheekbones, fleshy lips, short noses, straight black hair, and a reddish-brown skin. Their language is classified as Hamitic. Other similar languages are Coptic, Berber, and the Ethiopic group.

I. GOVERNMENT

Origin. We find in the valley of the Nile evidences of political organizations ranging from the most primitive type to that of a vast centralized empire, from a clan to an imperial organization. A pretty well-defined political system seems to have emerged soon after the people began the cultivation of the soil. Irrigation projects could not be developed without cooperation, and they would be valueless without some sort of political order and stability.

Chronology. There were two great centers of political development in Egypt: the delta region and upper Egypt. For the early period, distinct political organizations have not been discovered. Professor J. H. Breasted, one of the greatest Egyptologists, said, "We shall probably never be able to offer more than a sketch of the civilization of the Old and Middle Kingdoms, with a hazy outline of the general drift of events." The periods of early Egyptian history, which are pretty well defined, are the Pyramid Age (3400–2500 B.C.), the Feudal Age (to about 1800 B.C.), and the New Empire (1580–1150 B.C.).

The Pyramid Age. The outstanding accomplishment of the

first period was the construction of the pyramids, which was done under government supervision. The historian Herodotus claimed that 120,000 men worked for 20 years to construct the giant pyramid for the Pharaoh Cheops. This not only represents a great amount of manual labor but also reflects the power of a mighty ruler, who could command it. Well-defined Egyptian history really began with Menes (3400 B.C.), who founded the empire and united upper and lower Egypt into a single kingdom. Successors to Menes conquered Sinai and invaded territory as far north as Palestine, Phoenicia, and Syria. The ruler of this empire was absolute in power. He posed as the son of a god and the people accepted him as divine. He was the sole master and lord, the leader in war, the director of industries, the supervisor of public works, and controller of the resources. He had a vast corps of assistants to carry out the details of the government, but they were always responsible to the Pharaoh. The government was autocratic and bureaucratic to the extreme in every respect. The great mass of the people took no part whatsoever in political activities. Their lives and their property were at the mercy of the Pharaoh. The power of the Pharaohs waned after 500 years of domination and was followed by a period of general confusion and chaos.

The Feudal Age. The period of political disorder following the Pyramid Age is known as the Feudal Age. Numerous powerful priests, with the support of the people in their districts, broke away from the control of the central government and formed petty states. Rival noblemen tried to conquer each other and, as a result, there was almost constant warfare. The breakdown of the old bureaucratic absolute government allowed the development of liberalism among the people, but it was accompanied with suffering and privation. The literature of the period tells of the poor and the humble, of the wickedness of man, and of the hopelessness of the future. There was also a prophecy of a coming savior, a curious anticipation of the Messiah, predicted, 2000 years later. "He shall be the shepherd of his people, and in him there shall be no sin. When his flocks are scattered, he shall spend the day in gathering them together." Material advances were made, in spite of the disunited character of the government. Dikes, public works, commercial fleets, and canals were built. Because of their disunited state, the Egyptians were unable to keep out the Nubians from the south

and the Hyksos from the north, who overran the country. For some time, the Egyptians were forced to live under the domination of a foreign people. The Hyksos introduced into Egypt the horse and a military system, which the Egyptians adopted and ultimately used in reuniting their country under one government.

The Empire. The city of Thebes offered the greatest resistance to the invaders and formed the nucleus about which Egypt was reunited. After defeating the Hyksos (1600 B.C.), the Egyptians built a powerful fleet and invaded the Near East and the adjacent island of Cyprus. Thutmose I (1545–1514 B.C.) was a great conqueror, and Queen Hatshepsut (1501–1479 B.C.) was the first great woman ruler in historic times. She was more interested in having great temples built and in developing commerce than in fighting wars. She beautified the city of Karnak and rebuilt the temples destroyed by the Hyksos. "I have restored that which was in ruins, I have raised up that which was unfinished since the Asiatics were in the midst of the northland, overthrowing that which had been made," reads one of her proud inscriptions.

Thutmose III (1479–1447 B.C.), sometimes called "The Napoleon of Egypt," filled his long reign with glorious exploits, accounts of which are preserved on the walls of the great temple at Karnak. Syria, Phoenicia, and Palestine were made tributary provinces, ruled by Egyptian generals subject to the Pharaoh, who built a fleet to keep in touch with his oversea provinces and to protect his trade. Gradually, the Egyptian Empire lost its brilliance. The Hittites, a strong and warlike people from the north, invaded the outer provinces. Assyria became a rival power in the Near East, and internal dissension, rise in the power of the nobility, and the return to feudal conditions added to the weakness of the empire. Rameses II (1300–1233 B.C.) succeeded in restoring some of the lost prestige and Rameses III (1198–1167 B.C.) withstood numerous invasions, but the outward brilliance of the rule did not conceal the inward weakness. In 525 B.C., the Persians conquered Egypt and, except for a few brief periods, an independent and united Egypt ceased to exist.

2. SOCIAL AND ECONOMIC DEVELOPMENTS

Society. The development of agriculture and industry in Egypt led to the establishment of new social orders, quite different

from those that existed in the earlier period. The inhabitants became differentiated into easily distinguishable classes: a leisure class, forming the upper stratum; and a slave class, making up the lower. The distinction between these two groups was not sufficient to constitute a caste system, such as existed in India. It was possible for an individual to pass from the lower class to the other, even as high as the priesthood or to a leading government position. The rise of the leisure class, undemocratic as it was, did permit progress in the arts, science, and industry. Slave economy permitted the construction of pyramids, palaces, irrigation projects, and many other types of structure, which otherwise might have been impossible.

Generally speaking, the Pharaoh and his court stood at the top of the social ladder. Next came the landed nobles and the priests, the independent middle class (free landholders, artisans, and merchants), and at the bottom of the list, the serfs and the slaves. The greatest variation in status was in the middle class, which changed when economic conditions altered and when favors and concessions were granted. In time, its members were the most powerful single group, but they were superseded by professional soldiers about the middle of the 7th century B.C.

Position of Women. The position of women was a unique characteristic of Egyptian society. Queens ruled the country from time to time. The wife was independent in her own right, and her property and inheritance rights were fully recognized. The wife of a ruler was the keeper of the royal heritage and transmitted the right of kingship to her children. The position that women held in Egypt was not equaled in any other early civilization, and not until very recent times has it been surpassed.

Agriculture. Agriculture was the most important occupation of the Egyptians. The actual work was done by slaves, but government officials and scientists aided in its development. Government officials carefully supervised the work, decided on the crops to be planted and the fields to be used, and collected the government's share (from 10 to 20 per cent) of the grain at harvesting time. Government engineers and scientists constructed the irrigation projects, worked out calendars to designate the time for planting crops, and devised methods for measurement of land. The farm implements used were very crude, yet most of them were

not improved upon for many centuries. The ox and the donkey were the most valuable beasts of burden. Sheep and goats were driven over the planted fields, in order to tread in the grain and cover it with soil. The most important crops were wheat, barley, millet, onions, beans, lettuce, and peas. Flax and cotton were grown, the fiber being used to make cloth.

Crafts. Egyptian occupations were not limited to agriculture, although it was the most important activity. There was a comparatively large industrial population. The construction of pyramids and palaces necessitated a large group of trained mechanics. Granite quarrying, brickmaking, masonry, metalworking, and wood carving were important occupations. Shipbuilding became an important trade, as well as pottery making and cloth weaving. Linen cloth was made with such care that it looked like silk to the naked eye. Fine products of Egyptian craftsmen have been found in tombs: beautifully glazed and painted clay jars, furniture, vessels of gold and silver, and jewelry, which show that the artisans attained a high level of technique and an aesthetic appreciation of beauty.

Commerce. In Egypt, commerce never developed so extensively as it did in Mesopotamia, largely because agriculture was more profitable. It is known, however, that some trade existed. Goods were carried up and down the Nile; exchange was carried on by barter and, later, by established weights of gold and silver. Spices, dyes, cosmetics, and perfumed woods were brought from Arabia and India. Gold, ivory, and Negro slaves were brought from Sudan. As early as 1900 B.C., a canal was constructed across the Isthmus of Suez, but it was discarded because of the difficulties encountered in sailing the Red Sea. Next to agriculture, trade provided the most important source of royal revenue.

3. THE ARTS

Architecture. The Egyptians invented square-block masonry and the pyramid design in architecture. This particular form was probably originated from the mastaba, an oblong tomb with sloping sides, by placing one on top of the other to form a pyramid. These massive constructions were built as burial places for the Pharaohs. The grave was placed at the bottom of a shaft under the structure. By the use of vaulting and arching, passages were

constructed, so that the soul could move about freely. The Great Pyramid of Cheops-Khufu is over 450 feet high and 746 feet square at the base. It contains 2,300,000 stones, weighing on the average 2½ tons each. It was carefully constructed in correct mathematical proportions, the variation between the north and the south side is less than 8 inches, and between the east and the west side there is a difference of less than ½ inch. The stones are so closely fitted that crevices are hard to detect. The tremendous task

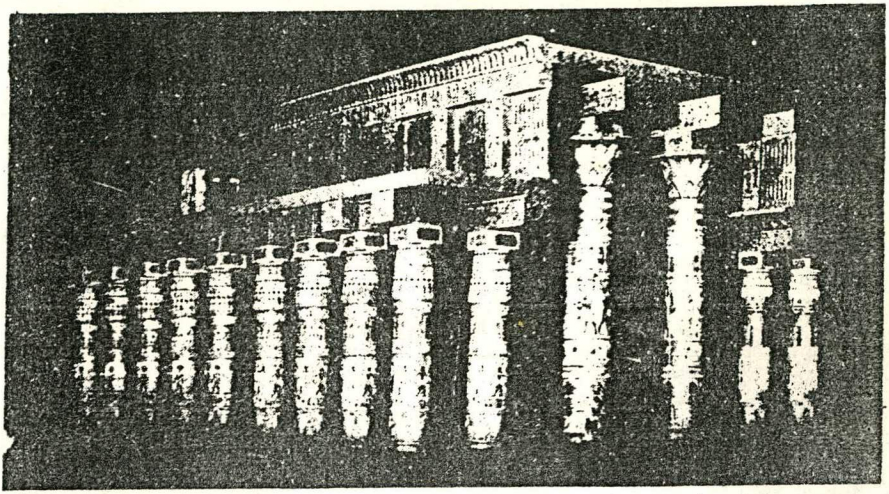


FIG. 5.—Model of hypostyle hall at Karnak, *ca.* 1340 B.C. Note the size of the structure compared with the human figure at the base. (*Courtesy, Metropolitan Museum of Art, New York.*)

involved in building a structure of such proportions without modern machinery is a marvel to civilized man. Simplicity and massiveness are the chief artistic qualities of the pyramids. They were built to serve a religious purpose; to symbolize the everlasting life that the Pharaoh sought. As pure monumental structures, the pyramids have not been surpassed.

The Egyptians built beautiful temples, as well as massive pyramids. The Karnak Temple contains the most massive colonnaded hall of all time. The columns of the central aisle are 69 feet high, crowned at the top with capitals 11 feet high and large enough to permit almost 100 men to stand on one of them at the same time. Careful landscaping with trees, flowers, and artificial lakes added greatly to the impressiveness of these buildings. Back

of the temple at Karnak was a huge obelisk made from a single shaft of granite nearly 100 feet high. Dwelling houses for noblemen were built with an eye for beauty. The only protection needed was to keep out the sun and the sand of the desert storms. Consequently, beauty was the first consideration. The general effect of Egyptian architecture was heavy and massive but, to say the least, it was awe-inspiring. The Egyptians greatly influenced the architecture of later peoples. The Greeks borrowed the idea of the column from them. There was built into the temple at Karnak a fully developed clerestory—a feature that was later utilized in the churches of the Christian Era.

Painting. The Egyptians made no clear distinction between architecture, sculpture, and painting. Works of sculpture were often painted, especially those of an inferior type—possibly, to cover the numerous defects. Much of Egyptian painting appeared as surface decoration on the walls of tombs, some of which represent the best produced at that time. The famous "Geese of Meidum" originally decorated the wall of a tomb (3d dynasty). Black and white was the color combination used, which produces excellent symmetrical balance. Usually, depth was indicated by placing one object above the other. Priestly art predominated until the time of Queen Hatshepsut. In one of her temples is a remarkable painting, showing three ships with their sails outstretched to the wind and with rowers pulling at the oars. Even in this fine work of intricate design, picture writing obtrudes from each side, giving the general impression that subject matter was considered as of more value than the aesthetic appeal. Ornamentations for house furnishings show more freedom from the traditional restrictions. Circles, spirals, and geometric designs were used to portray natural objects, such as waves of the sea, the flowering lotus, and the papyrus reed.

Sculpture. Next to architecture, sculpture was the most varied form of artistic expression practiced by the Egyptians. Permanence and realism were ideals uppermost in the minds of their sculptors as well as their architects. Architecture was embellished by the sculptor and often the building itself was overshadowed by colossal statu of Pharaohs, 80 to 90 feet high. Each of these was cut from a single block of stone and often weighed many tons. The figures were rigid in posture, the arms and

legs seldom extended far from the body. Both the seated and the standing figures have blocklike forms. This device both simplified the sculptor's task and made the finished work more substantial.

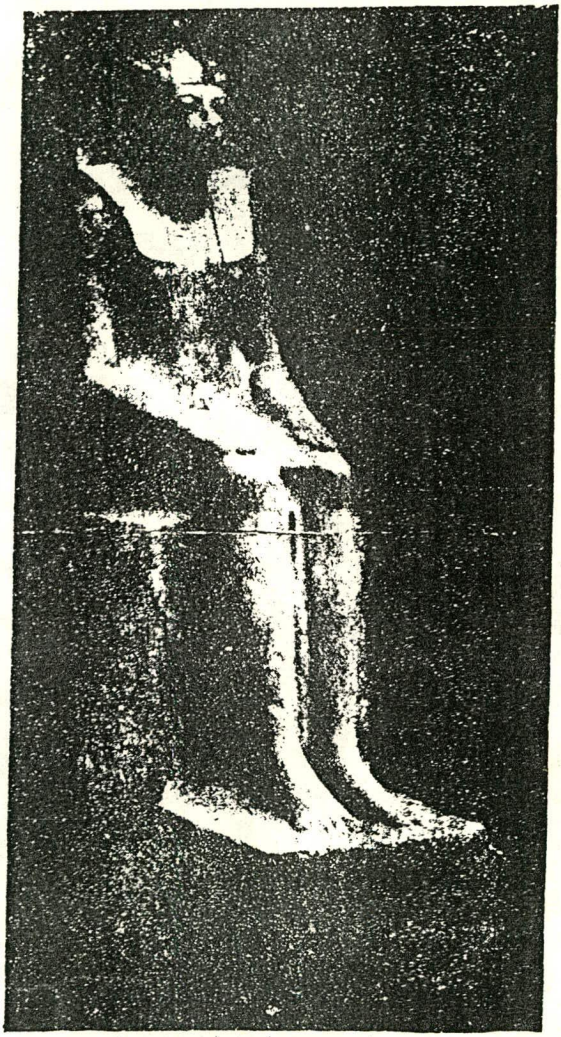


FIG. 6.—Slate statue of Queen Hatshepsut, life size. It illustrates the Egyptian practice of carving from a blocky mass. (*Courtesy, Metropolitan Museum of Art, New York.*)

A large section of the stone is left behind the head, serving as a support. The shoulders, hips, and feet are arranged in parallel horizontals, to produce a definite effect of rigidity. In most cases,

greater care was given to carving the features than to shaping the body. Some of the interesting works of sculpture combine animal and human forms. The Sphinx, a colossal statue with a lion's body and a human head, is one of the largest and most impressive of the surviving specimens of Egyptian sculpture. It is located near the

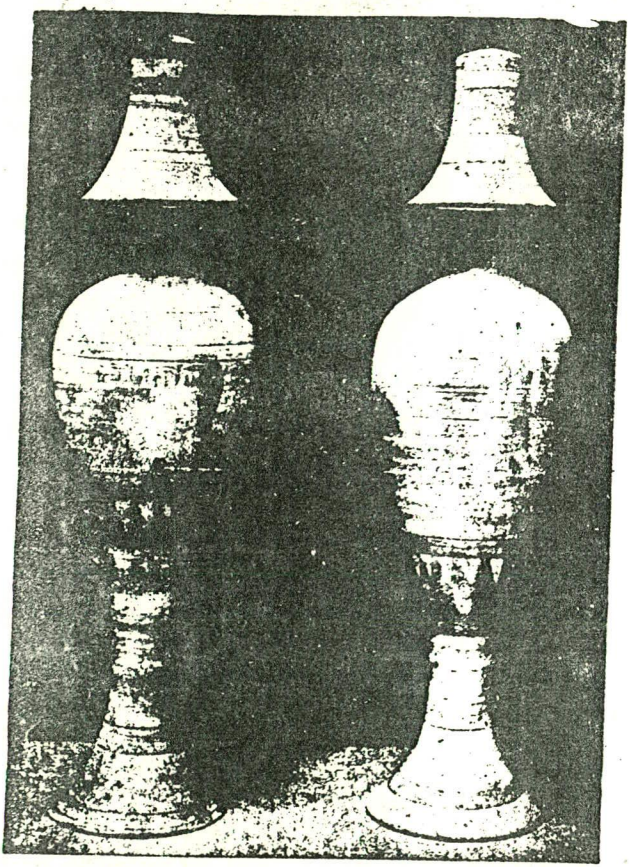


FIG. 7.—Two vases from an Egyptian tomb (19th dynasty, *ca.* 1300 B.C.). They are inscribed as containing wine of two sorts. Of particular note is their beauty of shape and design. (*Courtesy, University of Pennsylvania Museum.*)

Pyramids of Giza, in the midst of the desert sands, and has become a symbol of the mysterious and the inscrutable.

Relief sculpture was commonly used by Egyptian artists for elaborate picture narratives carved on the walls of tombs and on the facades of temples. Generally, the lack of perspective in figures—the most important were shown as exaggerated in size—resulted in

confusion. Convention was rigidly followed here as in other forms of Egyptian art. The presentation of the head in profile while the eyes were as viewed in fullface and the lips in profile while the trunk of the body was as viewed in fullface produced a very unusual effect.



FIG. 8.—Statuette of a scribe (12th dynasty, 1900 B.C.). This shows many of the features of Egyptian sculpture, including a stiff and formal posture. (*Courtesy, University of Pennsylvania Museum.*)

Furniture and the Minor Arts. No description of Egyptian art would be complete without some mention of household decorations. Most beautiful of all their work was the furniture: couches, chairs, shrines, and utensils of various kinds. Precious stones and metals were used in abundance. Chairs were covered with gold and silver and were fitted with soft leather cushions. Beautiful pottery, rivaled only by that of the Aegeans, was abundant. Existing jewelry collections in our large museums give evidence of great

skill in the working of precious stones, metals, ivory, and alabaster. These commodities, which were in great demand in other countries, constituted principal articles of trade.

In summarizing, to the Egyptians must go credit not only for their pioneering in the production of real art, but also for their accomplishment in technical and aesthetical qualities. Wealth and power accentuated magnificance and elegance. The artistic motive seems to have been an attempt to reach immortality and, through charm, to secure a place in the afterworld. Lack of perspective and of freedom was the most conspicuous of their weaknesses.

4. RELIGION

Importance. Religion dominated the political, economic, intellectual, and social life of the Egyptians. Their belief in an afterlife and the care that they gave their dead are responsible for the preservation of a considerable part of the knowledge that is available about the ancient Egyptians. They preserved the bodies of the dead with such success that, after thousands of years, some of the Pharaohs have been identified from their mummies. Food, clothing, utensils, art, and literature found in the tombs furnish excellent clues to the lives of the people.

Variety of Religions. The religious practices of the Egyptians varied from the most primitive fetishism to a close approach to monotheism. Constellations, human beings, gods, and animals all received their share of attention. Egyptians worshiped sacred animals, the sun, the moon, the Nile River, fertility and generation, men, and magic. At times, there was general confusion, an anarchy of gods; at other times, especially during the reign of Amenhotep IV, order was brought out of chaos with the general acceptance of one god.

Monotheism. The development of monotheism in Egypt was closely associated with the growth of centralized government. A powerful Pharaoh could dictate the type of religion for his subjects, and it was to his advantage to have it uniform throughout his kingdom. At one time, the sun-god Ra was accepted as the most powerful god. He supposedly possessed power over all enemies; he brought the seasons; he was responsible for fertility and for happiness. Every 24 hours he visited the realm of the dead, but was born again out of his own substance. Few gods were completely

destroyed in the development toward monotheism. They were given less important places, as one of their number was elevated to the most powerful position. Ra, the sun-god, accepted by the priests of Heliopolis, held this august position for a time, but he was superseded by Amon, the Theban god. With the union of the two city-states, a combination of the two gods was made and he was called Amon-Ra. Pharaoh Amenhotep IV tried to create a really monotheistic religion. He declared Aton the creator and ruler of the world, and himself took the name *Akhenaton*. Aton was neither man nor animal but a sun's disk, representative of the creative power of the sun's heat. Amenhotep IV (or Akhenaton) tried to simplify the forms of worship. He spoke of God as pure and gracious, the shepherd and the father. The priests resented this infringement upon their power and succeeded in overthrowing the ruler. Monotheism in a pure form never was attained in ancient Egypt.

Future Life. Future life was the main point stressed in the religion of the Egyptians. They took resurrection for granted, as natural as death itself. At first, they believed that future life depended upon magic rites, without much association with the kind of life that had been spent on earth. After a time, conduct became important. Pietism was resorted to and a life of suffering was glorified. Death was likened to the "fragrance of myrrh and lotus-bloom, . . . like homecoming after war and captivity." The wickedness of the world was deplored. "Life is wretched, full of sin and deception, cast it out from you, be one with the solar flame."

The dead were believed to live a curious double life, on earth and in heaven. The earthly existence was thought to be assured only through the preservation of the body. The bodies of wealthy men were mummified and, where this could not be done, images of the deceased were placed in the tomb. The earthly spirit dwelt in these abodes; if they were destroyed, the spirit would be without a home. The earthly spirit was thought to have human desires: need for food, clothing, and protection from earthly dangers. One of the greatest fears of the Egyptian was that these things would not be provided when he died. Contracts were made with strangers, as well as with relatives, to care for the tombs, and appeals in verse were made on the walls of the tombs and the sides of the coffin, asking for consideration from anyone who might wish to disturb the final resting place.

Great emphasis was put on the voyage of the soul to the next world. Egyptians believed that all kinds of evils would be encountered. Magic, trickery, and instructions drawn up by the priests offered the only hope of escape. The instructions and directions of the priests make up a large part of such Egyptian literature as has been preserved. The soul of a dead man, after a long voyage, came to the Hall of Truth, where the final judgment was made. The soul, according to instructions, was to say, "I come before ye without sin, and have done that wherein the gods are satisfied. I have not slain, not robbed, nor stirred up strife, nor lied, nor lost my temper, nor committed adultery, nor stolen temple foods. . . . I have given bread to the hungry, clothing to the naked." It was believed that if the candidate could say this with energy and conviction he would be forthwith admitted to become one with the god forever and live in an eternally delightful paradise, where grain grows taller than a man's head and where cool breezes always blow. If he were found guilty at the judgment seat, the unfortunate victim would be thrown into an abyss of destruction, where fearful creatures were ready to devour him.

The Myth of Osiris. The myth of Osiris, which was based upon the common practice of worshiping the sun, the Nile, and fertility, held a prominent place in Egyptian religion. It seems to have originated in an attempt to explain the annual death and rebirth of vegetation, the cycle of the seasons. Osiris was referred to as the divine lord of the Nile. However, he was more than the god of the river. His marvelous resurrection after having been put to death by the god of darkness and evil, and his having been taken into heaven, where he lives eternally, made him a real spiritual force in the religious life of the people. Many of the ideas of later religions dealing with the creation, the nature, and the destiny of man were borrowed from the myth of Osiris.

The Pharaoh. The Pharaoh stood at the head of the organization for the control and administration of religion. He himself was a god, son of Amon-Ra, who ruled by divine birth, as well as by divine right. As chief priest, he presided over religious ceremonies and festivals of the gods. The priests were his aides, to administer and to interpret the magic and the ritual to the people. These priests soon assumed a prominent position in Egyptian life. They ate the food presented by the people for the nourishment of

the gods, they lived in spacious apartments in the temples, and they were exempt from forced labor, military service, and ordinary taxation.

5. LITERATURE AND LEARNING

Writing. The Egyptians were among the earliest people to develop a well-defined system of writing. It goes back as far as the first dynasty and was well developed by the fourth dynasty. A member of Napoleon's Egyptian expedition in 1799 found a stone, commonly called the Rosetta Stone, upon which were inscriptions in both Egyptian and Greek. Several years later, a French scholar, Champollion, succeeded in working out the key to the hieroglyphics and unlocked many of the secrets of Egyptian life theretofore concealed. Hieroglyphics were not a popular or general form of writing, such as we have today. The word *hieroglyphic* means sacred carving, or the written language of the priests. However, variations of the form were used for secular purposes. At first, a definite object was represented by a written sign. Later, a particular ideogram represented a definite word conveying ideas and conceptions not necessarily corresponding to objects. Next came the syllabic stage, which was a transitional step in the direction of development of alphabetical letters.

Phonetic writing was not actually realized by the Egyptians, but they did have a combination of ideographic, syllabic, and alphabetical systems. They never agreed upon any universal form of writing. Different scribes experimented with their own individual forms. For practical purposes, they developed a hieratic, or literary, script for brush writing and an abbreviated form something on the order of shorthand, which was called *demotic*. At first this was used exclusively by merchants, but later it was adopted by others. These forms were supplanted, eventually, by the simpler and more practical Greek method of writing. The Egyptians did, however, take some steps toward the formation of an alphabet. For use in writing they made a kind of paper from the pith of the papyrus plant and ink from vegetable gum and soot.

Literature. Egyptian literature was predominantly religious in nature—praises to gods and Pharaohs or instructions for the guidance of departed souls. Two groups of religious writings, "The Book of the Dead" and the "Coffin Texts," written mainly for

Pharaohs, were found in tombs. The "Coffin Texts" were inscribed on wooden coffins of the nobility, while "The Book of the Dead" consisted of papyrus rolls found in tombs of ordinary people. Other works were devoted to lengthy accounts of deeds of departed Pharaohs. Secular literature was scholastic and impersonal, and

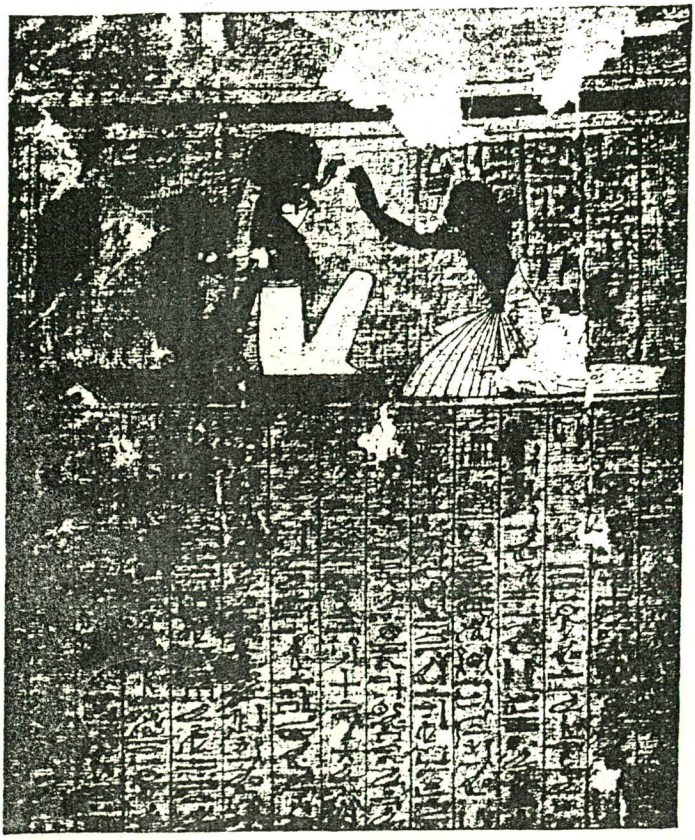


FIG. 9.—Portion of *The Book of the Dead*. Thebes (19 dynasty, *ca.* 1275 B.C.). Notice especially the drawing of the human figures, as well as the hieroglyphics. (*Courtesy, University of Pennsylvania Museum.*)

seldom was signed by the author. Unfortunately, most of the extant works are fragmentary, but enough examples have been found to show that the Egyptians had a literature comparable to their other cultural accomplishments. "The Song of the Harper," belonging to the Middle Empire, is a jovial drinking song. "The Dialogue between a Man Weary of Life and His Soul" is one of

the most artistic, emotional, and imaginative of the Egyptian poems. It deplores rationalism and insists upon the necessity of preparation for eternity. It laments the degrading influence of pleasure and worldliness.

"The Hymn to the Sun," written in the reign of Amenhotep IV, is a simple, honest, and sincere vision of the god Aton.

"Thy dawning is beautiful in the horizon of the sky,
O living Aton, beginning of life!
When thou risest in the eastern horizon,
Thou fillest every land with thy beauty.
Thou art beautiful, great, glittering, high above every land,
Thy rays, they encompass the lands, even all that thou hast made.
Thou art Re, and thou carriest them all away captive;
Thou bindest them by thy love.
Thou art far away, thy rays are upon earth;
Though thou art on high, thy footprints are the day. . . .
The trees and the plants flourish,
The birds flutter in their marshes,
Their wings unlifted in adoration to thee.
All the sheep dance upon their feet,
All winged things fly, . . .
Thy rays are in the midst of the great green sea.
All the distant countries,
Thou makest also their life. . . .
How excellent are thy designs, O lord of eternity!
There is a Nile in the sky for the strangers,
And for the cattle of every country that go upon their feet.
Thy rays nourish every garden;
When thou risest they live,
They grow by thee. . . . "

There were also love songs as well as religious praises. In the Empire, a poet sang:

"When I kiss you if your lips are open
I am joyful even though I lack beer. . . .

Ah! were I but her negress who attends upon her,
I should see the hue of her limbs! . . . "

"The Story of the Doomed Prince" is a fatalistic story of a prince born to be killed by a crocodile, a snake, or a dog. The prince escapes to a wonderland where he wins the king's daughter. He eludes the crocodiles and the snakes, but finally the inevitable happens: his pet dog causes his death. "The Story of the Shipwrecked Sailor" is a narrative poem, an autobiographical romance of adventure. A voyage, a shipwreck, and a rescue by a serpent of gold and lapis lazuli, which carries the voyager home in its mouth, form the outline of a fascinating story. While the Egyptians never achieved a great form of literature, they progressed far in that direction. They had the material for a great epic, but no great epic appeared. Drama was not developed, although they produced a primitive form of mystery play. Their literary works were not finished products; however, they were sufficient to class the Egyptians as people who had traveled far from a state of barbarism. Actually, they produced the first true literature in history.

Learning. The Egyptians made contributions to culture and learning aside from literature. Learning was prized very highly. A teacher's instruction to his pupil, found on a papyrus, admonishes, "Give thy heart to learning, and love her like a mother, for there is nothing so precious as learning." They worked out, probably as early as 4226 B.C., a systematic method of recording time on the basis of the solar year. Their year had 365 days, with 12 months of 30 days each and five feast days at the end of the year. They developed astrology, but scientific astronomy was neglected except for star tables. In mathematics, they produced a decimal system, with pictures representing units, tens, hundreds, thousands, tens of thousands, hundreds of thousands, and millions. A lotus leaf stood for 1,000, a tadpole stood for 100,000, and 1,000,000 was represented by a man striking his hands together above his head. The system for indicating uneven numbers was very complicated. It took 27 different symbols to write 897. The Egyptians could multiply and divide by two and three; they could add and subtract; and they had a complicated system of fractions.

Embalming gave them experience in the study of anatomy. They studied diseases and physical injuries, which they classified and sought means to combat. Temperature, pulse, pus, the evacuations of the bowels, and the kidneys were studied in their effort to control disease. A papyrus roll, 15 feet long, dating about 1600

B.C., is one of the oldest treatises on medicine. It describes 48 cases in clinical surgery under provisional diagnosis, examination, semeiology, diagnosis, prognosis, and treatment. There was little knowledge of chemistry. Medicine for internal use was mixed on the theory that the nastier was the taste the greater would be the curative power.

The Egyptians had a government-supervised educational system, in which commerce and politics were taught. The pupil, after graduation from the temple school, was sent to a more advanced course conducted by officials of the state treasury. On graduating, he was apprenticed to an official, who taught him the practical side of the profession. Here was one of the earliest school systems in history.

6. ESTIMATE OF EGYPTIAN CIVILIZATION

Compared with modern standards, the civilization of the Egyptians may not be impressive, but one should not forget that they were pioneers, originators of civilization. They fell short of actually perfecting, but they were practical originators. They set civilization on its way after eons of struggle. The people of Egypt decidedly raised themselves above barbarians and lived gracefully and joyously. They achieved success in government and law, in architecture and art, in literature and religion, and in agriculture and industry. They had a system of writing and a scientific calendar. The Hebrews, the Phoenicians, and the Greeks were all students of Egyptian culture and borrowed much from it. Writing, science, architecture, literature, and religion were all started on the road of progress by the ancient Egyptians, who passed on to successive civilizations a priceless heritage.

Reasons for Decline. The reasons for the decline of Egyptian civilization afford interesting speculation. The failure to perfect a workable political system, adaptable to expansion and imperial administration, was a contributing factor. Exploitation of the lower classes and religious intolerance had a retarding influence. The priesthood sapped the people of their material wealth and discouraged independent thinking. Finally, Egypt was confronted with formidable rivals more efficient in the art of war. Assyrians, Persians, Macedonians, and Romans subjected Egypt, in the order mentioned. Though the country's political independence was

destroyed, her civilization continued. The city of Alexandria was built by Alexander the Great of Greece at a time when Egyptian political independence had long been a thing of the past; but the new seaport became a commercial and intellectual center of Hellenistic civilization, with a pervasive Greek influence.

II. CIVILIZATION OF THE EASTERN PART OF THE "FERTILE CRESCENT"

Geography. The civilization centers of southwestern Asia were located on a fringe of fertile land forming a crescentlike semicircle, reaching from Sinai to the Tigris-Euphrates river system. The "Fertile Crescent" (originally so named by Professor Breasted) is the only land very suitable for agriculture in the whole of southwestern Asia. Nomadic peoples from the surrounding deserts poured into the unprotected region. The agelong struggle for the control of Mesopotamia is a continuous story, with episodes from earliest history to our own time. The Tigris and Euphrates rivers rise in the mountains of Armenia and flow in a parallel course southward into the Persian Gulf. The two streams unite before they enter the sea and form a marshy plain overgrown with reeds and brush. Farther inland, the valley is fertile and well suited for agriculture. Irrigation projects were necessary, as they were in Egypt, to furnish adequate water supply between the annual inundations. The plain of Shinar contained about 8,000 square miles of land suitable for agriculture. The civilization of Mesopotamia, like that of Egypt, was of a river-valley type. The people in this region were almost as dependent on the Tigris-Euphrates as the Egyptians were on the Nile.

The peoples of the Tigris-Euphrates Valley, in some respects, did not enjoy the advantages that the Egyptians had. Geographically, they were not so well secluded. Their land was subjected to numerous invasions. "Mesopotamia was like a reservoir into which there constantly poured streams of different people."[1] The absence of building stone in any quantities forced the inhabitants of the valley to use sun-dried bricks, which were easily and quickly destroyed. Their writing was on clay tablets, many of which have been lost for the same reason.

The People. The great influx of various nomadic racial types

[1] Barnes, H. E., *The History of Western Civilization* (Harcourt, Brace, 1935), I, 118.

into the Tigris-Euphrates Valley produced such a complexity that classification is difficult. The Sumerians were neither pure Mediterranean nor Alpine in their physical characteristics. Also, they cannot be classified as Semitic—a term that must be regarded as cultural or linguistic rather than racial. They were stocky in stature and had oval faces and high, straight noses. The Hittites, the Turanians, and the Kassites, although not of the same type as the Sumerians, were not Semitic. The most important group of people that inhabited the eastern part of the Fertile Crescent possessed a Semitic culture. Racially, they are generally listed as Mediterranean. They came into the valley as nomadic people from the Arabian Desert. The Babylonians and the Assyrians made the greatest advance politically and culturally.

1. THE SUMERIANS

Government. Sumerian tradition tells the story of a long period of prosperity and a well-developed, orderly society. There are records of floods that destroyed cities and accounts of the rebuilding of these cities. Greatest among them were Ur, Lagash, Umma, and Nippur. The Sumerians drained the marshlands and developed a powerful political system that lasted almost 1,500 years. The king of a city—*patesi*, in the Sumerian tongue—was the "tenant farmer" of the god. His "lease" was renewed each year, during a great festival held in honor of the god. The duties of the king included collecting offerings, supervising farming and workshops, legalizing all business transactions, and defending the city. He was merely a "great man"—the servant, not the source, of law and responsible to the gods for its enactment. The protection of the rights of the individual gave a breadth and balance to Sumerian culture. Warfare between the various cities was a common practice. The chief cause for rivalry was over land and water. Sometimes a change in the course of the river would lead to open hostilities. There was also the constant threat of invasion from neighboring nomads that necessitated alertness and in some cases led to unity among rival cities to repel an invader.

Akkad. Sumerian culture was spread over all Mesopotamia and even came into contact with Crete and Egypt through the conquests of Akkad (*ca.* 2500–2370 B.C.). The culture of the Akkadians was Semitic and, under Sargon I (*ca.* 2500 B.C.), developed a

great kingdom including most of the Sumerian cities. Sumerian culture was accepted and spread over the greater part of the area. The kingdom was destroyed by barbarians, but was restored by the rulers of the city of Ur about 2298 B.C. Ur was a splendid city, with walls, palaces, and temples. The great ziggurat temple built in honor of Nannar, the moon-god, was the most notable building. Part of it is still standing. The Babylonians conquered the whole territory about 2200 B.C.

Sumerian Culture. The greatest contribution of the Sumerians was their system of writing, which was in use about 4000 B.C. They wrote on clay tablets with a reed, making wedge-shaped marks—a system that is referred to as *cuneiform.* Sumerians took their idea of writing from cylinder seals used originally as personal symbols. Later, these symbols were employed to identify religious and economic terminologies. Designs or signs, each representing a syllable, were developed into graphs representing people, animals, plants, temples, gods, and cities. Finally, graphs were associated with specific words and component syllables. The Semites, the Hittites, and the Persians adopted this method of writing. The Phoenician alphabet ultimately superseded it in the 1st century B.C. The Sumerians devised a moon calendar with 12 divisions, adding an extra whenever necessary to bring the year into harmony with the seasons. Each year was named for some important event—a storm, a battle, or the death of some important person—that occurred during the year. The Sumerian system of numerals had 60 as the unit, and the weight measure was the mina, which was divided into 60 shekels. Notable contributions other than writing and a calendar were the potter's wheel and that significant invention, the wheeled vehicle. The Sumerians provide the oldest known center of scientific observation permanently recorded, including language study, jurisprudence, mathematics, and natural sciences. Texts containing botanical and chemical terms that are still used by scientists in these fields have been found, dating from the 2d millennium B.C.

Seals cut in stone and beautifully decorated metalwork constitute the greater part of the art of the Sumerians. Their numerous seals form an inclusive record, not only of Sumerian art, but also of Sumerian history. We know very little about the architecture of these people, because their buildings, made of sun-dried brick, could not withstand centuries of exposure. Of the temples,

the one at Nippur was somewhat on the order of an Egyptian pyramid. Temples served as homes for the gods, instead of as burial places for human beings. The homes of the people were unattractive huts, except those intended for the priests, and even these did not approach the grandeur of Egyptian buildings.

Sumerian Mythology. Sumerian religion was mainly nature worship. Dreams were regarded as revelations from the lower

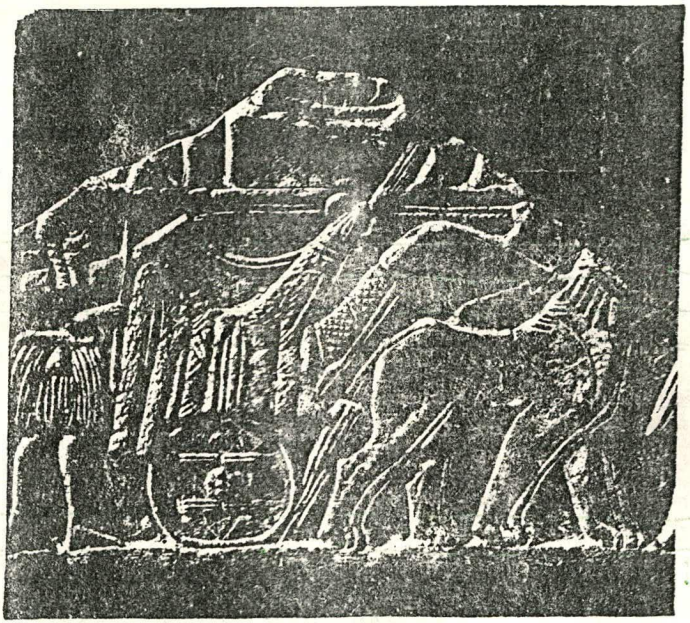


FIG. 10.—Limestone relief, royal tombs of Ur (*ca.* 3000 B.C.). (*Courtesy, University of Pennsylvania Museum.*)

world and any natural phenomenon might be regarded as an omen. Life was pervaded by evil spirits that filled the air. There were thousands of deities, most of which were represented in nature objects. Astrology was practiced by priests, who believed that the movement of heavenly bodies represented the will of the gods and could be used to ascertain their wishes. Offerings were made to the gods to prevail upon them to grant sufficient rainfall for the crop. Similar pleas were made for the prevention of floods. Sumerians had no clear conception of afterlife. To them, the next world was a forbidding place, to which both the righteous and the evil descended. The Sumerians introduced mythological and historical

epics. Many of their stories—those of the creation, the fall of man, the flood, and the tower of Babel—were adopted by the Hebrews and written into the Old Testament.

2. THE BABYLONIANS

a. Government

The Babylonians were a people with Semitic culture who gained control of Mesopotamia following the supremacy of the Akkadians, and who succeeded in assimilating Sumerian and Semitic accomplishments into a single cultural tradition. The name of the new kingdom was derived from Babylon, the chief city. Semites, Sumerians, and many other divergent elements were to be included under one term, Babylonian.

Hammurabi (2123–2081 B.C.), the greatest of the kings of Babylon, united Mesopotamia and established a centralized government. He was more famous as ruler and organizer than as warrior. The land was administered with an interest and initiative similar to that with which a patriarch of the desert ruled his family. Hammurabi governed with an iron hand, his authority being based upon divine origin. As his power was absolute, the fate of the country and of the people depended on his mercy. There are two chief sources of information for the study of Hammurabi's rule: a collection of 55 of his letters, and a monument bearing the code of laws. Among the numerous matters touched upon in the letters are "an order to finish cleaning out the canal in the city of Erich," and "an inquiry concerning the misappropriations of temple revenues." Many things that cannot be found in any other source are revealed clearly in these letters.

The Code of Hammurabi. The code of laws is the most famous of all the remains of Hammurabi's rule. One copy, carved upon a diorite stone shaft about 8 feet high, has been preserved. Hammurabi is depicted as receiving the laws from the sun-god. He tried to make his subjects believe that the laws were divine, thus giving them sanctity and enhancing the position of the king. It is apparent that Hammurabi did not originate all the laws, for many of them appear in old Sumerian records. What he did do was to codify and enforce them. This code, the oldest known in a complete form, is modern in several respects. Judges were appointed to try cases, a

great advancement over the blood-feud system practiced by most of the people at that time. The principle of "an eye for an eye and a tooth for a tooth" continued to be practiced, but under the supervision of the state. If a house fell and killed the son of a householder, the builder must suffer the loss of his own son. Death penalties were common. Conviction for adultery meant death for both parties concerned, and harboring a runaway slave resulted in capital punishment.

Women occupied a comparatively high position; they could own property, have equal rights in divorce, and bring lawsuits. They could engage in business and become professional scribes. Justice to the widow and the orphan was assured. Heavier fines were imposed upon the rich than upon the poor, because they could better afford to pay. The lower classes and even slaves were protected by law. Slaves might own property, marry, and will their possessions to their children. Freedom from bondage was obtained easily, and only runaway slaves were branded.

Social and Economic Conditions. Much has been learned from the code about Babylonian social and economic conditions. Inequality of social groups and special privileges to the select were recognized. There were three social groups, as evidenced in the provisions for penalties and compensations for injuries. The wealthy could exact retaliation in kind for personal injuries and paid heavier fees and fines. The second group had to accept payment for injuries; and the third group, the slaves, were treated as personal property. Weavers, dyers, carpenters, brickmakers, goldsmiths, jewelers, sculptors, potters, tailors, metalworkers, and brewers were mentioned and their rights were guaranteed. The craftsmen were held to strict regulations for the quality of their work. Canals and roads were built by forced labor.

Agriculture, which was highly developed, comprised the chief basis of economic life. Herodotus wrote, "Of all countries that we know there is none which is so fruitful in grain. . . . It is so fruitful as to yield commonly two hundred-fold. . . . The blade of the wheat plant and barley plant is often four fingers in breadth." Orchards of fruits and nuts and, above all, the date, were common in Mesopotamia. The grape and the olive were cultivated and later introduced into Greece and Rome. Trade was regulated under government supervision. Business contracts are mentioned in the

code. Deeds of settlement, leases, land deeds, promissory notes, interest rates were all standardized and defined.

Eclipse and Restoration. Babylonia was conquered by the Kassites about 1700 B.C. They introduced the horse, which was of great significance in later history. The Kassites destroyed much of the civilization of the Babylonians and brought to a close the first epoch of the cultural history of Mesopotamia. There was a brief but brilliant revival of Babylonian civilization under King Nebuchadnezzar II (*ca.* 604–562 B.C.), the greatest warrior, statesman, and builder of all the rulers after Hammurabi. His most lasting work was the rebuilding of the city of Babylon. The famous Hanging Gardens, which the Greeks included among the seven wonders of the world, were on a sort of artificial mountain, constructed under his direction for the pleasure of his wife, a native of mountainous country.

b. THE ARTS

Architecture. Babylonian architecture has disappeared almost completely. Accounts of the temples preserved in the literature furnish the chief source of information. The tower temples, known as *ziggurats*, were built in stages, like small artificial mountains. One such pyramidal structure was 650 feet high and built in seven stages. On the top of the tower were a shrine and rooms for the home of the god. It is believed that this high tower was constructed to appease the god for having been moved from the mountains (his original home). The principal hall was supposed to be the god's reception chamber, for receiving those who wished to pay him homage. There were other rooms provided for carrying out different parts of the ritual. The birth and burial chambers, rooms for the god's family and the lesser gods, an elaborate court, and numerous chapels completed the extensive abode. The unattractive brick walls were covered with rich woven carpets, colored tiles, and mosaics, giving the structure a very ornate effect. The Biblical tower of Babel was possibly of this type of construction. In all the architecture of the Babylonians, including the king's palaces, which were built on somewhat the same style, there was a conspicuous absence of columns and colonnades. The Babylonians did, however, make true arches, constructed with wedge-shaped blocks. In the later period, buildings were further elaborated,

but much the same pattern was followed until the time of the Assyrians.

Other Arts. Babylonian sculptures were inferior to those of the Egyptians and much less numerous. Men and animals were carved in mixed profile, with the idea of representing actions as seen at different times. This gave the finished product a weird effect, but the artist could convey an idea with the use of only a few figures. The development of seals, the use of which was borrowed from the Sume-

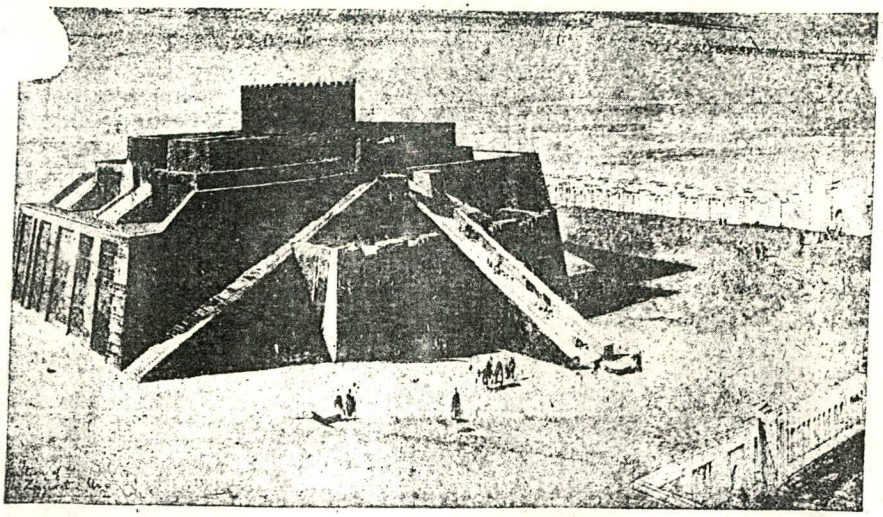


FIG. 11.—Ziggurat at Ur, from a water-color restoration. (*Courtesy, University of Pennsylvania Museum.*)

rians, was the greatest artistic accomplishment of the Babylonians. Every Babylonian, from commoner to king, had his personal seal. Sargon's seal shows the king's name above two bulls, placed back to back, lifting their heads to drink from two streams of water that issue from a vase held by a god. It depicts water as a gift of the gods to man and beast. The seals furnish an interesting source of information, for many of them have been preserved.

c. Religion

Religious Cults and Practices. The Babylonians had many practices and beliefs in their religion. Their chief concern about future life was to remain dead and not be disturbed, to lie motionless throughout eternity. Marduk, god of Babylon, was generally

recognized as supreme, but he was not beyond challenge from others. Ishtar, the mother of the gods, who possessed control over reproduction among plants, beasts, and human beings, commanded almost universal attention. Associated with Ishtar was her husband Tammuz, the vegetation god, who died each year and went to the lower regions. Ishtar always went in search of him and, while they were gone, vegetation died, but when they returned it revived. An elaborate ritual developed around this practice,

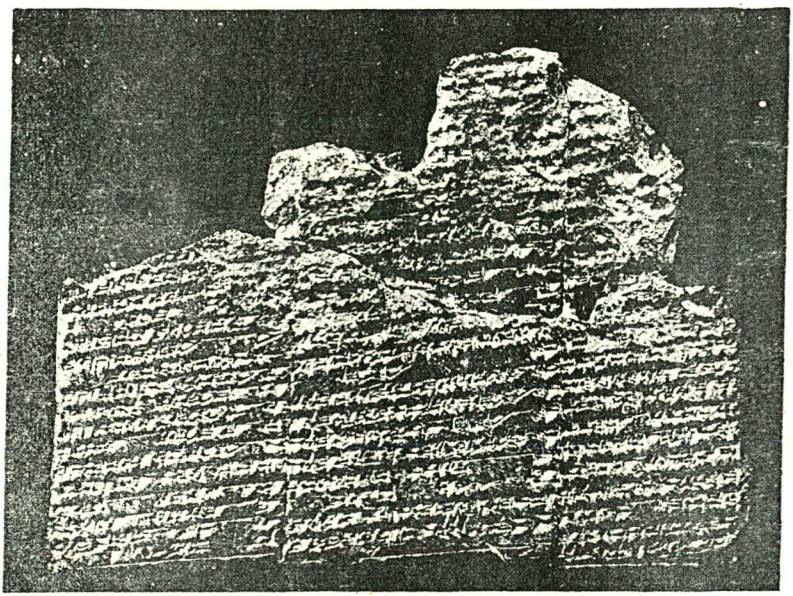


FIG. 12.—Babylonian tablet, "Story of the Creation of the World and the Deluge." Nippur (*ca.* 2200 B.C.). Note the cuneiform style of writing. (*Courtesy, University of Pennsylvania Museum.*)

which explained seasonal changes to the satisfaction of Babylonians.

The chief motive in worship by Babylonians seems to have been to obtain substantial benefits from the gods and to escape their vengeance. The art of divination, the ability to foretell the future, was granted to chosen individuals by the gods. A diviner used sheep's liver, the stars, and the planets to foretell the future. Every woman who hoped to bear children was expected to go to the temple of Ishtar and sell herself for one hour to some unknown man. The wages for her harlotry were to be dedicated to

the goddess. Priests seem to have put themselves in readiness to play the part of the stranger and many grew rich accepting gifts for their services to desperate virgins. It would be most unfair to judge the Babylonian priests from this practice alone. Many of their hymns were very idealistic and beautiful:

"The sin which I sinned I know not;
My god has visited me in wrath.
I sought help, but none took my hand;
I wept but none gave ear.
To my god, the merciful god, I turn and pray;
How long, O lord!
O god cast not away your servant,
But turn my sin into a blessing."

General Character. Babylonian religion never progressed beyond polytheism. Babylonians imagined the world peopled with demons and the gods were at times depicted as miserable wretches, cringing and crouching from dangers, like dogs. Fear held the people in subjection, and the element of love, as a dominant factor in worship, was lacking. Their conception of sin was external and general, and they atoned merely for their inability to do right. They excused their sins on the basis that they were not gods and could do no better. Babylonians were relatively uninterested in afterlife, which they considered dismal at best. They concentrated on improving man's existence on earth.

d. Literature and Learning

Character. The Babylonians prized learning very highly. "Ye who shall excel in tablet writing shall shine like the sun," was one of their proverbs. Men were trained for clerical work in temple schools, and other types of cultural pursuits were encouraged. They adopted the Sumerian cuneiform writing, altering it somewhat; but it never reached the alphabet stage. The priests supervised and passed upon the written works before they were preserved in the temples. Mythology and epics were favorite forms of literature. Many of them were attempts to explain the existence of man and his relationship with the universe.

Epics. The great epic of Gilgamesh contains several different

Babylonian myths. Gilgamesh was a legendary ruler who had survived the Deluge and escaped death.

"Two-thirds of him is god,
One-third of him is man,
There's none who can match the form of his body. . . .
All things he saw, even to the ends of the earth,
He underwent all, learned to know all;
He peered through all secrets,
Through wisdom's mantle that veileth all.
What was hidden he saw,
What was covered he undid;
Of times before the stormflood he brought report.
He went on a long journey far away,
Giving himself toil and distress;
Wrote then upon a stone tablet the whole of his labor."

The story of the flood is interesting. The gods in a fit of anger decided to drown the human race; but the secret was betrayed to a good man in a village, who built an ark. The downpour came, but after many days the gods repented and instructed the good men to replenish the earth. Another episode concerns the story of Enkider, a naked giant with long golden hair. He fought Gilgamesh, was finally killed, went to the underworld, and returned to describe the lower regions. In still another story, Gilgamesh meets and kills the "heavenly bull," thus angering Ishtar. To atone, Gilgamesh crosses the waters of death and returns with an herb that restores youth. The whole epic, by comparison, stands in literature as one of the magnificent portrayals of the struggles of mankind in war, in love, and in death. The Babylonians had a mythology as picturesque as that of the Greeks, and some of the descriptions remind one of Milton's *Paradise Lost.*

Other Forms of Literature. In addition to epic poetry, there was a large amount of writing called "temple literature": psalms, hymns, and prayers. Examples of "Wisdom literature," or fables, were numerous. Animals were given semihuman roles, and the story was supplied with a moral aptly stated. The eagle was a creature of violence, the fox was a robber, and the ox an example of strength. Epigrams replete with wisdom and philosophy were common:

"Avoid vulgarity and hatred."

"Do not hasten to speak in public."

"Guard well the interest of your superior."

"There is a disease for which there is no physician; it is to have no food to eat."

Learning. The Babylonians were scientific-minded. They surveyed the universe and arranged their conclusions in tabulated forms. They followed the start made by the Sumerians in numeration by sixties and established the idea of giving value to numbers in accordance with their position. Three figures were used for numeration: a sign for 1, which could be repeated up to 9; a sign for 10, repeated up to 50; and a sign for 100. Mathematicians worked out tables for multiplication and division and for the halves, quarters, thirds, squares, and cubes of the most important numbers. They developed a lunar calendar, divided the year into 12 lunar months, agreeing in length with the phases of the moon, and invented a seven-day week. They perfected a sundial, and mapped the movements of the sun, the moon, and the planets. Preventive medical practice consisted mostly of incantations, but it is clear that herbs were used to combat certain diseases. Sunflower seed was recommended for toothache, milk for stomach trouble, and an oil shampoo and beer were prescribed for baldness. Scientific accomplishments, however, were limited, because natural laws were considered of less importance than were miracles and irregularities. An astronomical, as contrasted with an astrological, view of the universe was never developed by the Babylonians.

e. Estimate of Babylonian Civilization

The importance of Babylonian civilization as a background for later developments is just beginning to be fully appreciated. Archaeological discoveries, particularly those of the Germans, have thrown a flood of light upon the high state of this culture. Many things that for a long time were considered of later origin are now known to have had their beginnings in Babylonia. Most of the succeeding civilizations in southwestern Asia and even in Greece owe much to the Babylonians. They studied the past, unhampered by the idea of future life. They preserved many legends—not only their own, but also those of other people—which present an interesting background for the Hebrew Bible. Science made a real

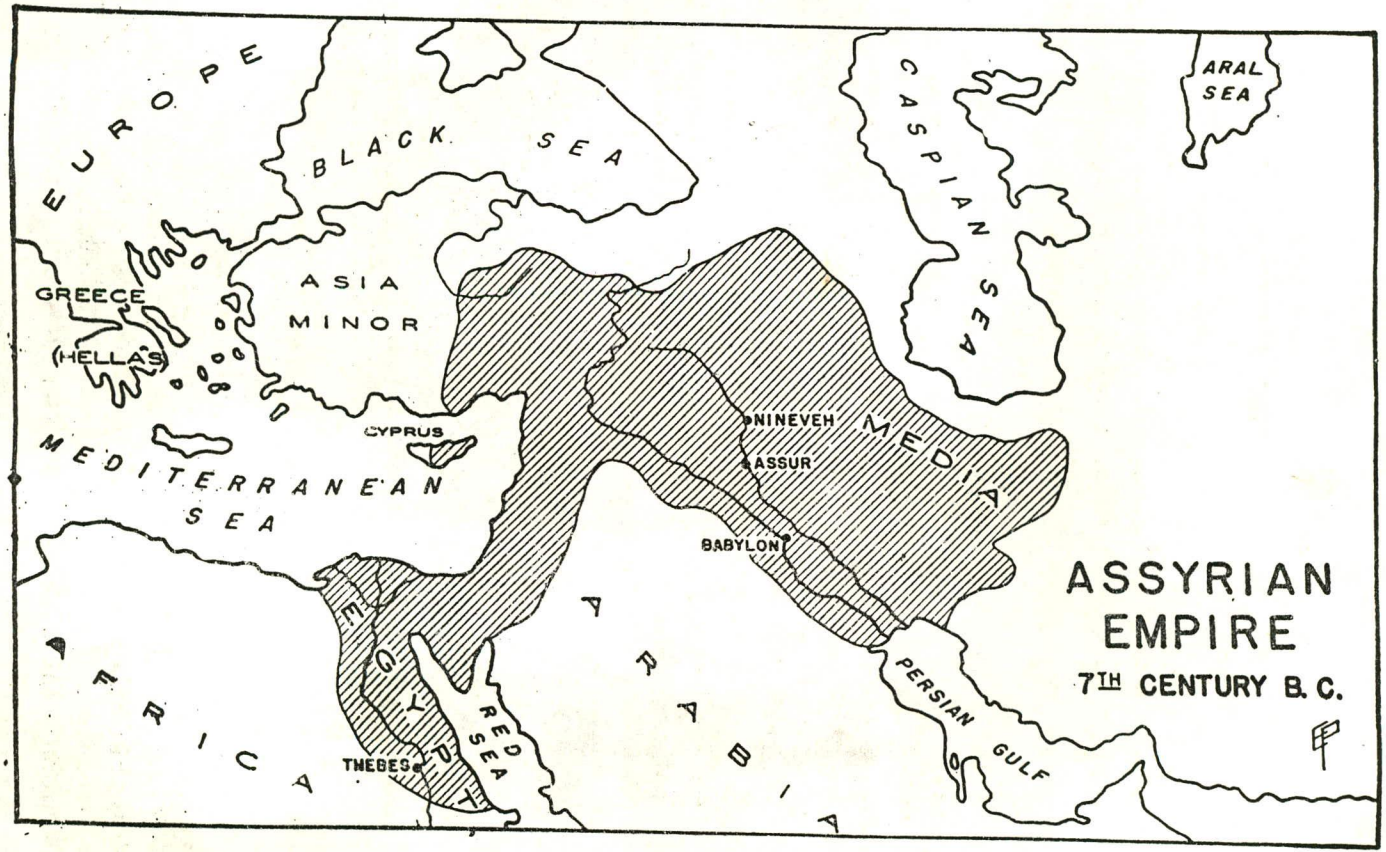
beginning under their critical and analytical observations. They developed units for the measurement of length, cubic capacity, time, and weight. In literature, they evolved the epic, penitential psalms, fables, and proverbs. The foundations of mathematics, astronomy, archaeology, history, medicine, grammar, lexicography, and philosophy were established. Indeed, the Babylonians charted previously unknown routes on the sea of learning. Their intellectual signposts guided many a scholar in centuries that followed.

3. ASSYRIAN CIVILIZATION: A SEQUEL TO BABYLONIAN

The Assyrian Empire. Assyria occupied a very prominent place in the history of the Near East, but the Assyrians borrowed most of their culture from the Babylonians. The Assyrians were cruel conquerors and for nearly 300 years their mighty armies moved from one victorious battle to another. Assur, the Assyrian capital, was located on the Tigris River about 200 miles north of Babylon. Sargon II (722–705 B.C.) and his son Sennacherib (705–681 B.C.) conquered the whole of the Fertile Crescent and extended the Assyrian domain from the Taurus to the borderlands of Egypt. The empire was destroyed by the Medes and the Persians about 606 B.C. Nineveh, the later capital of the Assyrians and the most magnificent of all ancient cities, was completely destroyed. Babylon was rebuilt by the Chaldeans, the last of the great Semitic empires in Mesopotamia, and for a brief period the proud city again ruled the fertile valley of the two rivers.

Civilization of the Assyrians. Military and political organizations were the chief contributions of the Assyrians. Their soldiers were among the first to be equipped with iron weapons, battering rams, and war chariots. The army was divided into corps of infantry, charioteers, and engineers. The army was the state; everything centered in it. The government was very highly centralized. The king was really a general, directing the affairs of his state, both civil and military. Personally appointed governors and messengers kept him in close touch with all the important centers of his empire. Possibly the first public postal system was developed by the Assyrians, later to be adopted by the Persians.

Assyrian sculpture was more realistic and lifelike than that of the Babylonians. Much of the subject matter was taken from


EUROPE
BLACK SEA
ARAL SEA
CASPIAN SEA
GREECE
(HELLAS)
ASIA MINOR
CYPRUS
MEDITERRANEAN SEA
NINEVEH
ASSUR
MEDIA
BABYLON
ASSYRIAN EMPIRE
7TH CENTURY B. C.
EGYPT
RED SEA
ARABIA
PERSIAN GULF
AFRICA
THEBES

military life, which was glorified not only in art but in political and social circles as well. Bas-relief was developed to great perfection by the Assyrians. Animals were portrayed more successfully than men. Human figures in Assyrian reliefs are stiff and coarse, with large heads, long whiskers, and invisible necks. They are all

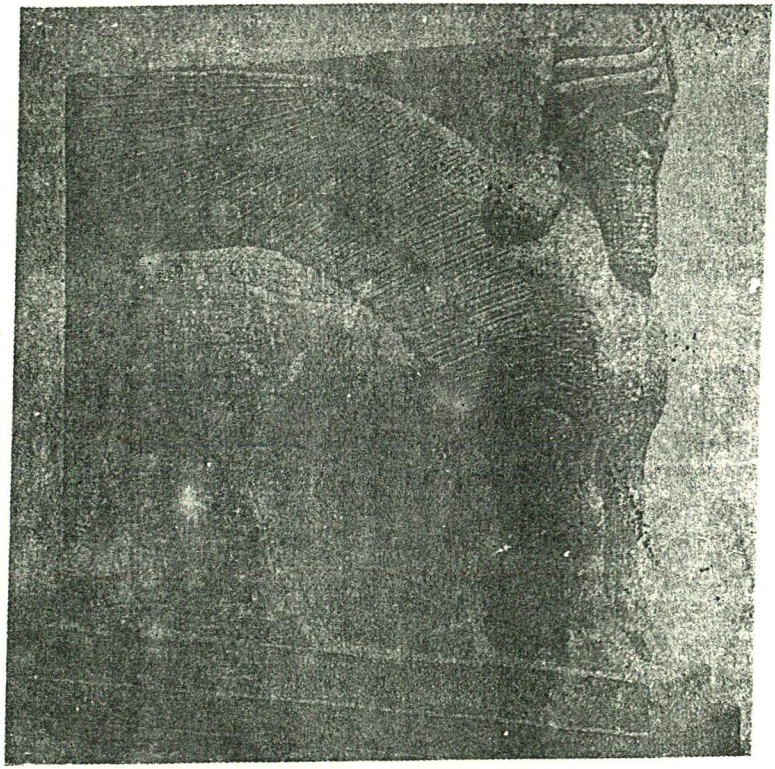


FIG. 13.—Assyrian "winged bull." (*Courtesy, Metropolitan Museum of Art, New York.*)

alike, as if the artists followed a model designed for the purpose. However, in the case of animals it is different; vigor of action and feeling is shown. Horses and lions seem to have been favorite subjects; but asses, goats, dogs, deer, and birds were depicted. The horses of Sargon II on the reliefs of Khorsabad, the wounded lioness from Sennacherib's palace, the dying lion from Ashurbanipal's,

and the resting lioness are still recognized as masterpieces in bas-relief.

The Assyrians added some practical knowledge in chemistry, in the making of glass, and in the preparation of ores. A great library was built at Nineveh, that became a leading cultural city. However, the greatest achievement of this people was in military and political organization. Life of the nobility was luxurious but stiff and harsh, a characteristic of a militaristic state. When the power of Assyria was broken, there was a general sigh of relief. Few cared to preserve what a government so cruel and inhuman had built up.

III. CIVILIZATIONS OF THE WESTERN PART OF THE FERTILE CRESCENT

1. THE LAND AND THE PEOPLE

The Land. The western arm of the Fertile Cresent lacks the benefit of the two great rivers that dominate Mesopotamia. There is a fringe of fertile land between the desert and the Mediterranean Sea, but there is no vast plain with abundant facilities for agriculture. The early inhabitants were wedged in between the sea and the desert and their occupations reflect a combination of the influences of both. The grasslands bordering the desert furnished grazing for flocks, and the sea invited tradesmen to seek profits through trading with other peoples. Because of the more varied contacts of these people, their culture was more cosmopolitan than that of peoples living within the narrow limits of a river valley. This was especially true of the Phoenicians and even more so of the Aegeans.

The People. The Hittites, the Aramaeans, the Hebrews, and the Phoenicians were the most important peoples who inhabited the western part of the Fertile Crescent in early times. The Hittites were the only people of the four mentioned who did not have a Semitic culture. Anthropologists are not agreed as to their classification, but they are generally listed as Indo-Europeans. The Aramaeans were Semitic nomads before they took up their abode in the Fertile Crescent. The Hebrews were Semitic, but they inherited numerous characteristics of some of the people with whom they came in contact. They acquired, for example, the aquiline nose

from intermarriage with the Hittites. The Phoenicians were closely related to the Hebrews and the Aramaeans, but they confined their settlements to the Syrian coast on the northeast corner of the Mediterranean Sea.

2. THE HITTITES AND THE ARAMAEANS

The Hittites. The Hittites were more widely dispersed and in some respects their influence was more far-reaching than that of any other of the early peoples. Their earliest kingdom was in the north central part of Asia Minor, along the Halys River. The period of their greatest power was about 1350 B.C. They developed a realistic art and were teachers of the Assyrians in architecture. The Assyrians copied their walls, gates, palace porches, and methods of decoration. The Hittites were the originators of the Mother Goddess of fertility. Their greatest contribution was iron, which was adopted by all the civilized peoples of the age and which served as a connecting link between the peoples of Egypt, the Fertile Crescent, and the Aegean World. After the middle of the 13th century B.C., Hittite power began to decline, and by the close of that century it had disappeared, except for small strongnolds in northern Syria.

The Aramaeans. Around 1000 B.C. there were three important Aramaic city-states: Hamath, Zoba, and Damascus. Damascus, located at the head of the caravan route across the desert to Babylon, was an important trade center. The Aramaeans were great traders and controlled the inland trade of the Near East in much the same way as the Phoenicians controlled the sea trade. They were the carriers of merchandise between Mesopotamia, Phoenicia, and Egypt. Their writing and language were even more important to posterity. They had an alphabet, which supplanted cuneiform and hieroglyphic forms of writing. Aramaic, it will be remembered, was the language that Jesus spoke. The Aramaic dialect was practically the international language of the Levant at the beginning of the Christian Era.

3. THE HEBREWS

Environment. The Hebrews established their kingdom in Palestine. The northern part, Israel, had some fertile valleys and

the people were comparatively prosperous. In the southern part, Judah, which had insufficient rainfall, the soil was barren and rocky. This geographical difference was reflected in the lives of the people. The Judeans glorified a life of suffering and privation and immortalized the shepherd and his flock. The Israelites were worldly and materialistic in their philosophy and religion. They lived a life of luxury and worshiped the "golden calf." The Hebrews borrowed many of the ideas of the people who occupied Palestine before they arrived. They adopted the houses of the Canaanites, or built similar ones, and copied their woolen clothing. The Philistines taught them the art of warfare, and the Aramaeans influenced their language.

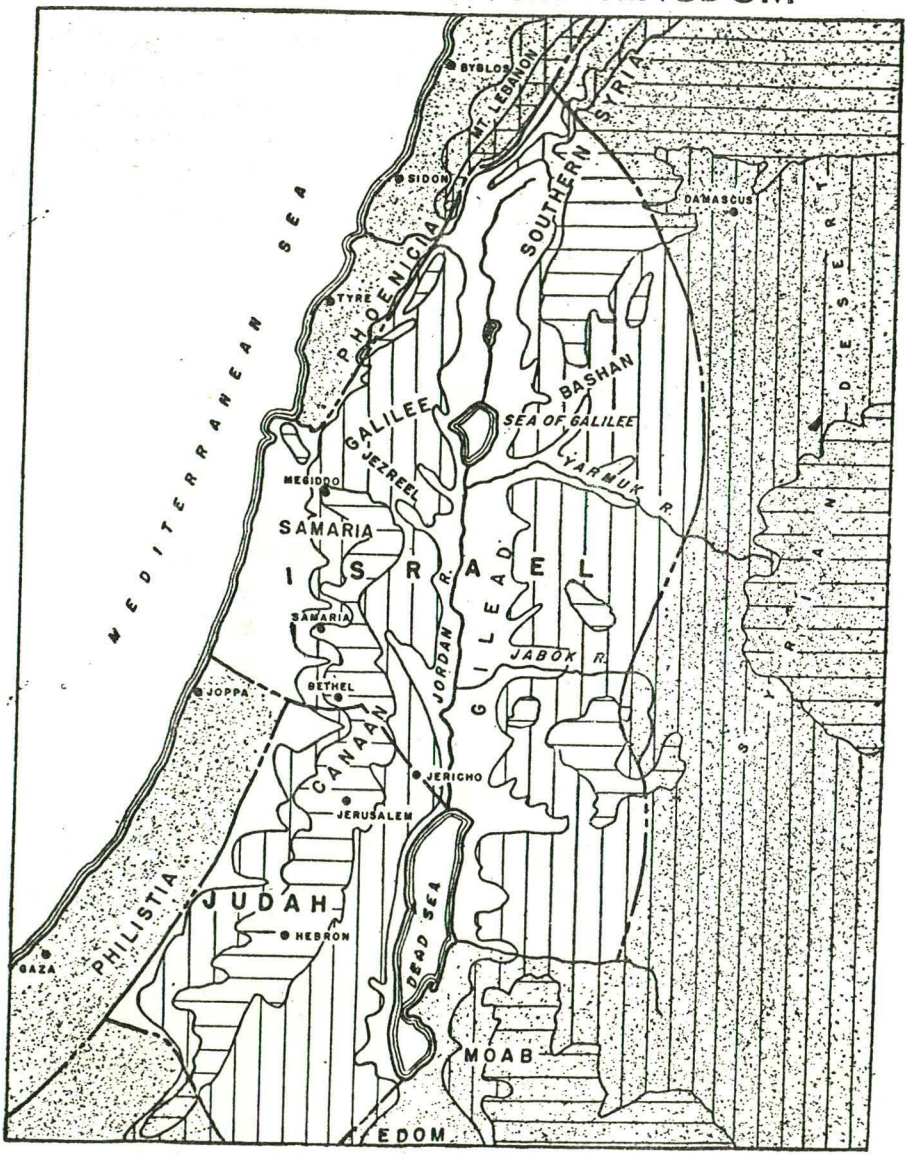
a. GOVERNMENT

The Hebrew State. For centuries, the Hebrews gradually filtered into Palestine from the desert, and for a long time they had no centralized political institution. The warlike Philistines, who lived in the southwest corner of Palestine, effectively opposed the unification of the Hebrews for some time. There was no unity in political administration. The 12 more or less independent tribes were administered in the fashion of families with patriarchs. "In those days there was no king in Israel, but every man did that which was right in his own eyes" (Judg., 17:6). Saul (*ca.* 1028–1013 B.C.) first united the Hebrews, but his rule was cut short with a disastrous defeat by the Philistines. David (*ca.* 1013–973 B.C.) succeeded in reuiniting the scattered tribes, and crowned his achievements with a victory over the ancient enemies. David's son, Solomon (*ca.* 973–933 B.C.), fell heir to the accomplishments of his forefathers and reaped the fruits of their sacrifice in a rule of luxury and happiness.

In 930 B.C., the kingdom was divided, because of the difference between the northern and southern sections and the weakness of the central government. The Hebrews were never very successful political administrators. Their central government, at its best, was little more than an ecclesiastical organization. God ruled over all and was the source of political as well as religious authority. A king was a sort of necessary evil, to maintain order, protect freedom of speech, and encourage trade.

Conquest and Destruction. A divided Hebrew kingdom could

THE HEBREW UNITED KINGDOM



(Courtesy, R. E. Turner, The Great Cultural Traditions.)

not withstand the attacks of the Assyrians. In 722 B.C., Israel was conquered and many of the people were carried away as captives. The Judeans felt secure under the protection of their god, whom they considered powerful enough to overcome any enemy. However, in 586 B.C., Nebuchadnezzar, the Chaldean king, destroyed Jerusalem. The Judeans were dispersed, some of them were taken as captives, and others fled into Egypt. The hope for the future was kept alive, while they were in Egypt, by the prophet Jeremiah. He predicted a revival of their power and a return to even greater glory, because of their suffering. When the Persians overthrew the Chaldeans and the Assyrians, many of the Hebrews returned to their native land, rich in experience but poor in material wealth. Their wanderings and sufferings enabled them to develop a religion upon which rest the foundations of Christianity, but their political power never reached any great height.

b. ART

Music. The Hebrews used music extensively in their religious ceremonies. The melodies probably developed from rhythmical recitation of the verses of their creed. Musical instruments, particularly the harp, were used as accompaniment to voices. An orchestra and a choir are mentioned in connection with services at the Temple. Unfortunately, neither the music nor the directions have been deciphered. Love songs and dances are also mentioned, but none of them has been found, unless the "Song of Solomon" in the Old Testament is an example.

The Hebrews contributed very little in architecture, painting, or sculpture. They lived in a world of imagination, not within walls erected and decorated by the hand of man. The Temple is a possible exception, but even this, their most elaborate construction, was a simple uniform sanctuary without many decorations. The priestly procession, the music, and the recitation of their ritual were the only decorations they desired. Their religion prevented any progress in painting and sculpture. In 622 B.C., the prophets advised the destruction of all the images in the land of Judah, and while in exile they were charged by their leaders not to portray either earthly or heavenly objects in artistic form. As a consequence, it is easy to see why that phase of their cultural life was neglected.

c. RELIGION

Origin. The religion of the Hebrews was the consummation of their ideals and the embodiment of most of their activities. The seeds of the religion were sown while the people were nomadic tribes struggling for existence in the desert, which in the daytime quivered with heat and by night was unpleasantly cold. Many of the gods of the Canaanites and the Aramaic peoples were accepted, wholly or in part, by the Hebrews, as were the nature gods of the Babylonians. Tammuz, the god of vegetation, who died each summer but was brought to life by the autumn rains, was the most important of their pastoral gods. The settlement of the Hebrews within the Fertile Crescent altered their religion, but the nomadic background was not destroyed. The Israelites broke almost entirely from their earlier environment and their religion became typically materialistic, but it was not so with the Judeans. Their continued struggle to live from the poor soil of their country enabled them to keep the spirit of their old traditions and to build upon these a wonderful philosophical and ethical religion. Poor soil and the hardships of exile accentuated their earlier influences. However, a cultural contact with advanced people aided in the development of an advanced religious philosophy.

Jehovah. The idea of Jehovah, the God of the Hebrews, evolved from many sources. To him were given characteristics held by gods of other people; he supposedly helped his followers wrestle with the terrors of the desert while they were still nomads; he was believed to have fought battles for his chosen people against the Canaanites, and was depended upon to crush the Assyrian god, Assur. For a long time, he was considered to be a god of battle. Moses spoke of him as a God of war (Exod., 15:3), and David is reputed to have said, "He teacheth my hands to war" (II Sam., 22:35). When Hezekiah, King of Judah, was threatened in a letter from the Assyrian king, the letter was read to Jehovah and his counsel was implored. To the Hebrews, God was anthropomorphic; he possessed human form, with hands, with feet, with eyes, and with a heart. He understood man and sympathized with him. The chief manifestation of the divine will was in the experience of the social process. It gave to the Hebrews a history with a religious meaning. Whatever happened to the chosen people had significance in terms of Jehovah's purposes.

It was Moses who really gave to the Hebrews their loving, all-powerful, and ever-just God. He contended that for the Hebrews there was but one God. Moses led his followers to the foot of the Holy Mountain, where they committed themselves to the one God, a holy contract in which the Hebrews promised to worship Jehovah and Jehovah promised to favor the Hebrews. He gave his chosen people the Ten Commandments, and they felt that so long as they obeyed these commandments they would be protected. Before the time of Isaiah, Jehovah was regarded as being solely a god of the Hebrews, being one among many lesser gods. Moses sang, "Who is like unto thee, O Lord, among the Gods?" (Exod., 15: 11; 18: 11); and Solomon said, "Great is our god above all gods" (II Chron., 2: 5). Not until political unity was attained under David and Solomon did Jehovah become the sole god of the Hebrews.

Work of the Prophets. A great many of the characteristics of the Hebrew religion are reflections of their natural surroundings and experiences, but much of the formulation and codification of the faith is the work of the prophets. They placed Judaism upon a sound ethical basis, making it a morality religion, rather than redemptive. To the Hebrews, the true prophet was one whose mind was open to the meaning of a new historical experience from which he could deduce the will of God. Amos (*ca.* 760 B.C.) was an early Hebrew prophet, a simple herdsman whom Jehovah commanded to leave his flock and serve him and to speak the words of God. He was not a philosopher but a prophet, and one of the first thinker-poets of the human race. God, to Amos, was everything. All else, including man and the world, were insignificant. Man's unique position was to be able to know and serve God, which was a departure from the religious ideas of the Babylonians and Egyptians. God, to the Babylonians, was closely linked with nature, and the Egyptians believed it possible to become one with God after death. Amos finally conceived the distinction between God and man, but recognized the great gift bestowed upon man in being able to know the infinite wisdom of the Creator. Amos believed that God had no material form but that one could see, hear, and feel him in spirit. He declared that the sins of the nation were oppression and social injustice. The cause of the oppressed class was of great concern to Amos. He prophesied the fall of Israel because of materialism, and his prediction came true.

Isaiah (*ca.* 724–680 B.C.) carried on the work of Amos. He developed an elaborate vision of God's summons and made it more adaptable to Jerusalem (*ca.* 724–680 B.C.). He founded a prophetic principle, which became the guide and inspiration of the Hebrews and formed the foundations of Christianity. When the hosts of Sennacherib were at the gates of Jerusalem, the Judeans were disappointed that Jehovah did not strike them down. Isaiah boldly preached that it was not a struggle between Jehovah and Assur, but that Jehovah ruled the whole world. The Assyrians were merely the lash in the hands of the true God, which he was using to punish the Judeans for their evil practices. This foreshadowed the idea of a universal God and put the responsibility for deliverance directly upon the shoulders of the people. God was no longer expected to fight man's battles; the people must do it themselves for the glorification of God. Isaiah gave to his depressed people the Messianic hope that a Redeemer would end their political divisions and their misery, and introduce an era of brotherhood and peace.

> Behold, a virgin shall conceive, and bear a son, and shall call his name Immanuel. . . . With righteousness shall he judge the poor, and reprove with equity for the meek of the earth. . . . The wolf shall also dwell with the lamb, and the leopard shall lie down with the kid, and the calf and the young lion and the fatling together; and a little child shall lead them. . . . And they shall beat their swords into plough-shares, and their spears into pruning-hooks: nation shall not lift up sword against nation, neither shall they learn war any more.

The prophet Jeremiah (*ca.* 625–586 B.C.) definitely established a monotheism out of Judaism. He exhorted his associates to lay down their arms because Jehovah was not on their side. He could do as he willed—not merely with one people but with all. Jeremiah's teachings were personal, learned, and logical. To him, God was supernaturally great, without material form but by essence omnipotent and holy. Ezekiel (6th century B.C.) developed the logic of Jeremiah into a record of national history, and advocated a rule of right conduct for every individual. He repudiated the idea of collective responsibility: "The son shall not bear the iniquity of the father, neither shall the father bear the iniquity of the son. The righteousness of the righteous shall be upon him and the wickedness of the wicked shall be upon him" (Ezek. 18: 20).

The prophets reformed Judaism and developed Jehovah from a heathen, jealous God into an omnipotent God of love.

The prophets rendered a great service to the Hebrew religion and to the many religions that developed from it. They associated Jehovah's law with a just society and concluded that under a just God social injustice would not exist, except through the mistakes of man. Therefore, the sufferings of people were due to the sins of the wealthy and powerful classes. While they did not succeed in reforming the social order, they did give ethical attributes to a deity. Justice, to the Hebrews, would be the reign of Jehovah's law. Gradually, the conception of "One God," whose concern is the moral regeneration of mankind, was developed into an ethical monotheism.

Hebrew Religion after the Prophets. Hebrew religion continued to develop after the days of the great prophets. While the Hebrews accepted the idea of Jehovah's being a universal God, they clung to the belief that they were the chosen people. They believed that they were delegated to bring knowledge of their God to the whole world and that, if they fulfilled their task, the world would become a paradise ruled by "The Prince of Peace," their own Messiah. This became both inspiration and impetus to the Hebrew people. It enabled them to live through the torture of captivity and urged them on the road to progress. After the exile, the influence of the prophets gave way to that of the priests. This marked a deterioration in the Hebrew religion. More emphasis was put upon offering sacrifices and mumbling prayers to win God's favor. The priests lost much of the spirit of the teachings of the prophets and became corrupt and worldly. However, enough of them continued to cherish their dreams of a Messiah to keep the idea alive.

d. Literature and Learning

The Old Testament. The greater part of Hebrew literature is concerned with religion, and the works it includes are generally regarded as religious documents. Aside from its spiritual value, however, the Old Testament is one of the greatest and most beautiful pieces of literature produced by any people of any time. As history, it ranks with the works of Herodotus and Gibbon, and as poetry it ranks with the works of Shakespeare and Goethe. The Book of Exodus is an autobiography of Moses, according to tra-

dition. The Book of Joshua is an epic depicting the exploits of a hero and the history of a people. The Book of Judges contains the dramatic story of Samson. Women, their position and character, are pictured with tender pathos in the Book of Ruth. The narrative story of the splendid days of the Jewish monarchy is found in the four books of Kings. The Book of Job is a powerful dramatic narrative, with man, Satan, and God as the chief characters. The Book of Psalms, some of which every Christian knows, is poetry rarely excelled. The Thirteenth Psalm, for example, is a superb didactic poem:

"How long, O Jehovah? wilt thou forget me forever?
How long wilt thou hide thy face from me?
How long shall I take counsel in my soul,
Having sorrow in my heart all the day?
How long shall mine enemy be exalted over me?
Consider and answer me, O Jehovah, my God:
Lighten mine eyes, lest I sleep the sleep of death;
Lest mine enemy say, I have prevailed against him;
Lest mine adversaries rejoice in thy salvation."

The Proverbs contain many gems of thought unexcelled in any language:

"Happy is the man that findeth wisdom,
And the man that getteth understanding,
For the gaining of it is better than the gaining of silver,
And the profit thereof greater than fine gold."

The Talmud. In addition to what we call the Old Testament, there is in Hebrew literature a collection of laws and commentaries known as the Talmud. It embodies the wisdom of the finest thinkers of the Jewish people. It is to the Jews what the New Testament is to Christians, an authoritative word. It is almost a library in itself, including a record of debates and decisions, poetry and philosophy, and wisdom and mysticism that cover more than 800 years. It has had a profound influence on the Jewish people and, while some of this information has found its way into gentile literature, most of the Talmud is comparatively unknown outside Jewish circles.

The New Testament. Although the New Testament belongs to a later period, essentially it, too, is a Hebrew contribution. It is a portrayal of the life and teachings of Christ through the preachings of the great Apostles. Paul is responsible for and is the chief figure in much of the New Testament literature. The Apocalypse: The Revelation of St. John the Divine, is a mystical work in which there is a promise of the Holy City, to succeed this sinful world. While the New Testament has not a rich store of folklore and history like that contained in the Old Testament, it is a great imaginative and philosophical interpretation of life.

Learning. Besides literature and religion, the Hebrew contributions to culture are meager. Obviously, much of this literature cannot be taken as an authentic source. There are few archaeological remains to substantiate it, and many of the stories cannot be accepted as literally true. Some claim that Moses was a mythical character and doubt if the Red Sea ever opened so that the fleeing Hebrews could cross on dry land, and many other well-known episodes lack substantial proof of authenticity. The Hebrews lacked originality in their material pursuits. Their alphabet was borrowed. The natural sciences fared badly; chemistry, mathematics, physics, and astronomy were sadly neglected. Illness, they believed, was a punishment for sin; law, they contended, was God given; and the political organization was a compact between God and man. They delved deeply into metaphysics, however. This resulted in a belief that God was the sole being, cause, and power. He was the creator, the preserver, the inspirer, and the guide.

e. Estimate of Hebrew Culture

The supreme contribution of the Hebrews was their religion; everything else was subsidiary to it. The Old Testament stands as the most precious legacy of Western civilization before the time of Christ. Both the monotheistic religion of the Hebrews, with a God who ruled through love, and the high moral code of the people, which was an integral part of their religion, served as examples for future ages. In their belief, God gave man a supernaturally revealed law, which states in definite terms the distinction between right and wrong. Their code was stern and austere, but in the numerous non-violation provisions there is the positive counterpart of mercy. An

element of individualism can be found in the Hebrew conviction that there is in every man a certain holy, precious thing that is never to be violated by others. Here lies the germ of individual liberty, which is still struggling to bear fruit.

4. THE PHOENICIANS

The Land and the People. The Phoenicians occupied a narrow strip of land between the Lebanon mountains and the Mediterranean Sea. They were forced to become carriers of trade for a living, because the land of their country was unsuitable for agriculture. The rugged coast line of Phoenicia furnished excellent harbors for the city kingdoms, and the cedar forests of Lebanon provided lumber from which to construct vessels. From Tyre and Sidon, Phoenician sailors guided their ships throughout the Mediterranean and Black seas and perhaps beyond the gates of Gibraltar into the Atlantic Ocean.

Politics. The Phoenicians had a city-state form of government similar to that existing among the Greeks in a later period. They established colonies and each city colony acknowledged allegiance to the mother city, but there was no imperial administration. The governments of the individual cities varied greatly, as each pursued its own course; but as a general rule they were very autocratic and despotic.

Trades. The trade of the Phoenicians was not limited to any one commodity or place. They mined gold, silver, and tin in Spain and carried the metals to many different peoples. Glass, pottery, dishes, carved-ivory combs, elaborately inlaid furniture, large bronze platters, and purple robes were gathered from the four corners of the known world and sold to the wealthy peoples of the eastern Mediterranean. The Phoenicians were skilled craftsmen, as well as traders. In their own cities they made beautiful pottery; they wove and dyed cloth; they engraved metals; and they manufactured furniture. Homer referred to their beautiful tunics and their chains of wrought gold. Ezekiel mentions their carved ivories, and the Hebrew books of the Chronicles describe their work in gold, silver, brass, iron, and wood. Many a powerful kingdom depended upon the Phoenicians for the articles of luxury that they alone could produce or collect from distant lands. Phoenician workmen were employed by Assyrian kings to make furniture for the royal

palaces and by King Solomon to build the Temple at Jerusalem. Phoenician colonists founded cities at such strategic points along the Mediterranean as Cadiz, Carthage, and Marseille; and garrisons were established in Malta, Sicily, Corsica, Cyprus, and perhaps in distant England.

The Alphabet and Other Phoenician Contributions. The alphabet was the greatest contribution made by the Phoenicians. They adopted 22 signs, each sign representing a single consonant, which constituted the first real alphabet of true letters. The signs were arranged in a definite order so that they could be committed to memory and thus made much more usable. The pen, ink, and paper for writing were introduced into Europe by the Phoenicians. They had little literature; their work in writing was principally composed of business records.

The idea of the alphabet originated with the Phoenicians, but the Greeks added vowels and thus completed it. The Greeks also borrowed the Phoenician styles in art, dress, and technique of craftmanship. Phoenician culture aided materially in the development of Greek civilization. The Phoenicians blended the cultures of Egypt and Babylonia and, through their own civilization, passed on the result to succeeding generations.

IV. AEGEAN CIVILIZATION—A FORERUNNER OF THE GREEK

Recent Discoveries. Archaeologists are constantly unearthing new evidence concerning early civilizations. Their finds have opened new knowledge concerning ancient peoples and have forced revision of the story of antiquity. Within the past half century, information has been brought to light that has enabled the piecing together of the story of the Aegeans and their civilization. Two men, Heinrich Schliemann and Sir Arthur Evans, are primarily responsible for these finds. Schliemann, a German-American merchant, who was a lover of Homer's poetry, felt convinced that the stories told in the *Iliad* and the *Odyssey* were at least partly true. His faith and industry were rewarded in 1875 by the discovery of the sites of the ancient cities of Troy, Mycenae, and Tiryns. In 1894, Evans began his work in Crete, where he found the location of Knossos. The aid of co-workers has resulted in bringing to light locations of at least a hundred cities in Crete. A new civilization,

which may prove to have been as advanced as the Egyptian or the Babylonian, has been discovered. The task has just begun; the language has not yet been deciphered.

The Land. The home of the Aegeans was on the islands and territory bordering the Aegean Sea. Today, as in antiquity, this is a crossroad for the civilization of Europe, Asia, and Africa. The Aegean Sea, which is comparatively small, is dotted with countless islands that form an archipelago in which there are few points where land is not visible. Mariners who crossed it in early times were not faced with the depressing feeling of being lost between sky and water. The sea served as an excellent kindergarten for sailors. The early Aegeans soon mastered the rudiments of navigation. Since the land was not favorable for agriculture, the industrious Aegeans turned to the sea. The oar was as indispensable to them as the plow or the shepherd's crook was to agricultural people. The climate was ideal. There was enough variation to produce a vigorous race, but not enough to make unreasonable demands on time and energy to produce food, shelter, and clothing. Wheat, barley, olives, and grapes grew in sufficient quantities to feed the people adequately.

The People. The Aegeans are hard to classify. They belonged to a different group from the Semites of Asia and the Hamites of Africa. Ordinarily, they are classified racially as a subdivision of the Mediterranean type. They had occupied the region around the Aegean Sea by 3000 B.C., and held sway over it for several centuries. They were slender, narrow-waisted, tall, long-skulled, and had dark hair and eyes. They were an industrious people, willing to undergo hardships and run risks.

1. GOVERNMENT

Scarcity of Information. There is very little actual information available concerning the political institutions of the Aegeans, since their writing has not been deciphered. About the only information, aside from what is obtained from material remains, comes from Egyptian sources. Apparently, there was no well-organized and centralized political system among the Aegean peoples. There were numerous city kingdoms, the most important of which was Knossos. Crete offered a possibility for the development of a powerful government. It was a convenient steppingstone between

Egypt and Greece, also between the Peloponnesus and Asia Minor. Homer attests to its prosperity. "Fair, fat, well-watered, it has men beyond numbering and ninety cities."

Knossos, Mycenae, and Troy. Knossos became an important center. It was situated a little over three miles from the sea and occupied a dominant position. Here, behind powerful walls, a wonderful palace was constructed. While Egypt was being overrun by the Hyksos, Crete spread her influence into Cyprus, the islands of the Aegean, and the mainland of Greece. Mycenae and Tiryns were established and grew into prominence under the protection of Knossos. Mycenae ultimately outstripped Knossos. From 1400 to 1200 B.C., the Mycenaeans conquered the Aegean Islands and far inland into the mainland of Greece. Farther north, Troy became a city of prominence. Ruled by a line of wealthy commercial kings (2500–1500 B.C.), Troy was a rival of the southern cities. Peoples pouring in from the north ended the supremacy of the Aegean peoples. The Hittites pushed along the coast line of Asia Minor, conquering and destroying, but leaving two things of inestimable value—the horse and iron. Around 1200 B.C. the Dorians destroyed Mycenae and Tiryns. After having conquered the mainland, they turned to the islands farther south; Melos, Crete, and Rhodes fell prey to the conquerors. Their path from north to south was marked by a trail of ruins. The beautiful palaces at Mycenae and Knossos were destroyed (1400 B.C.). To this wonderful Aegean civilization, the coming of the Dorians was a barbarian invasion.

Government of Crete. The political system of Crete went through a great many changes. At first, the island was controlled by numerous clans, all more or less independent. Minos, about 1450 B.C., subjected the rival clans and made Knossos the capital city. "Minos" seems to have been not the name of a man or even a dynasty, but a dynastic title. The title "Minos" in Crete was used in the same way that "Pharaoh" was used in Egypt. The Minos was a priest-king, the representative of the Bull God. Later, he was referred to as the son of Zeus, set apart by divine will to rule man. A special dispensation from the gods lasted for nine years, after which the ruler had to visit the sanctuaries of the god and render account of his actions. The period of the visit was a time of great anxiety and anguish for the people. They made sacrifices—offering a tribute of seven young men and seven maidens—fasted, and lived

in great anticipation of the return of their ruler. If the ordeal of the Minos and the sacrifices of the people were successful, the ruler returned with a religious investiture of power to rule nine years longer.

The chief work of the Minos was to dispense justice, guided by sacred laws and infallible decrees, which he acquired from his conference with the gods. The Minos supervised the public works and commanded the army. He was a powerful king but not a despot. The common people recognized his superiority, but they were not his slaves. An unsuccessful king could not count upon the support of his followers; his position and wealth depended upon how well he managed the state.

2. ART

Architecture. The glory of Aegean civilization is reflected in the gorgeous palaces of the rulers in Knossos and Mycenae. The palace of Knossos is the most famous. It had a rambling series of rooms—living rooms, chapels, audience halls, bathrooms, and workshops—grouped about a central court. Part of the building was several stories high. The upper rooms were reached by fine, broad stairways. The ceilings were supported by wooden columns; each column, tapered toward the bottom, had a small base and a cushionlike capital. The interior walls were covered with gay color combinations and frescoes. The palace of Tiryns was made of stones so huge that the Greeks contended it was built by the Cyclopes, or mythical giants. There were numerous galleries roofed over by having each course of stones in the walls extend over the course below, until they met overhead. This was not a true arch, made with wedge-shaped stones, but it served the same purpose. Many of the dwellings other than the palaces were spacious and comfortable. The Aegeans had no religious temples, but they did have vast commercial buildings. These were built with an idea of service rather than beauty; consequently, they are not outstanding architecturally.

Painting. The Cretans were further advanced in painting than were any others of the peoples mentioned thus far. Fresco paintings adorn the walls of the palaces, tombs, and private buildings. The artist did not understand how to blend colors; he painted a full-face eye on a profile face; he knew nothing of shading; and his notions

of perspective were very primitive. Still, his composition was good, and his technique, excellent. Plants, beasts, and human beings were favorite subjects. Hunting scenes, marine life, crouching beasts, and bull scenes appear on almost every wall. The "Cupbearer," a Cretan youth holding a gold-mounted silver vase, the "Bull-grappling Scene," and the "Flying Fish" frescoes are among the best preserved. They give adequate demonstration of the artistic ability of the Aegeans.

Sculpture. Very little sculpture of the Aegean civilization has survived, but the fragmentary remains that still exist give proof of the progress that had been made. The pediment of the Lion Gate at Mycenae is one of the best preserved examples. On it two lions in high relief, placed on either side of a shaft with their forepaws resting on the base, keep guard above the main gate to the city. The figures are dignified and well proportioned, and admirably fit into the contour of the wall and the gateway. Minoan sculptors had ability for portraying action and feeling, especially in animals. A bull carved in stone, with tilted head, bulging eyes, and open mouth, presents a striking likeness to the enraged animal in real life. Much skillful work was done on smaller objects, such as ivory figures, stone vases, and engraved seals.

Minor Arts. The "Snake Goddess," with an elaborate coronet on her head and with gold snakes coiled around her, is a fine example of the worker's skill in colored glazed earthenware. Pottery, indeed, was the most outstanding of the various forms of Aegean art. The vases were so rare and beautiful that the far-away Egyptians prized them as their most valued possessions. Much of their pottery, as thin as an eggshell, was covered with a lustrous black glaze, which no known acid will remove. Naturalistic designs, some in brilliant color, of sea life, plants, and birds, form the main patterns. The designs and figures were skillfully arranged to give proportion and lightness. Leaves seemed ready to quiver in the air and animals appeared ready to move. Craftsmen in metal added their share to the glory of Aegean art. A bronze basin with a hammered border pattern of lilies of exquisite design has come down through the centuries. A gold cup portrays a bull-hunting scene. One of the animals has been caught in a net, another is in the act of charging the men, and a third is shown dashing away. These and other similar works and some beautiful jewelry are

specimens that call forth great admiration, although they were produced almost 3,000 years ago.

3. RELIGION

Fetishism. Fetishistic rites and ceremonies played an important part in the religion of the Aegeans. A pillar upon which a sacred object was placed, serving as a kind of altar, occupied a prominent position in the home and in public buildings. The double ax was a sacred tool par excellence, a symbol of the thunderbolt and an engine of death. It was displayed in all kinds of important locations: on raised posts, on columns, and on moldings of capitals. It was used in the sacrifice of the bull, through which man was supposed to obtain the warlike strength and the procreative vigor of the sacred animal. The shield was supposed to have a peculiar power of protection. The shield used in battle was the imitation or representation of a spiritual shield, that hovered above the battlefield and which could be brought down for the protection of man through charms and incantations. Sacred trees and sacred animals were used extensively in the early Aegean religious ceremonies. While later religious developments superseded many of these primitive practices, they still remained very much in evidence as symbols.

The Mother Goddess. The Mother Goddess was one of the oldest of the Aegean divinities. In many respects, she was the Aegean counterpart of Ishtar and Isis. She was regarded as the source of all existing things, the mother of man and animals. She made plants grow and fruit trees bear; created day and night, brought fertility, wielded destruction, governed fecundity, and dealt out death. Her symbols were the dove and the serpent. They represented the great contrast in her powers, which compassed both the good and the evil. The serpent seems to have been her most constant companion. As "Lady of the Snake," she ruled the underworld; as "Lady of Wild Creatures," she dominated the earth; and as "Lady of the Dove," she reigned in heaven.

The God. A god was associated with the Mother Goddess, in order to make her character as the fruitful mother complete. He was born of the Mother Earth and suckled by a goat. He was master of men and animals and used the lion, the strongest of animals, as his aid. He existed as both man and animal; as animal

he was the bull and as man he was, at first, Minos and, later, Zeus. He furnished the moisture that refreshed the earth, he fertilized the fields, he distributed prosperity, and he was the lord of creative love and eternal life. He died, but was reborn; he was the symbol of immortality.

Religious Ceremonies. Because of the importance of the Mother Goddess, women held a very important place in the religious ceremonies. The king, even after he became the high priest of the bull, wore woman's clothing in divine service. There were neither temples not large statues of the gods. Private worship was performed before small idols or in the presence of a woman who represented the goddess. Purification was necessary before the religious ceremony could begin. This became one of the most important functions of the priest. Sacrifice was regarded as necessary for an approach to a god; the bull and the boar were considered the best victims. The divinity was given food and drink; incense was burned and sacred music was played during the worship. Besides daily ceremonies, there were numerous seasonal festivals: springtime, the capture of the bull, the olive harvest, and winter. Feasting, dancing, and pageantry made these special occasions brilliant affairs.

The Cult of the Dead. The spirit of the departed was supposed to live among its former associates on earth, and to ensure its happiness was their duty. The dead body was revered and kept as near the former home as possible. Gold masks were made to cover the face, to preserve the likeness of the perishable form. Everything used in life was put in the tomb: lamps to give light and warmth in the cold grave, food and drink, jewelry, and weapons for defense. The more important the individual, the more elaborate was the equipment; a king was arrayed in all his earthly finery.

4. SUMMARY OF AEGEAN CIVILIZATION

A just evaluation of Aegean civilization cannot be made at present, because the language is still a mystery. Try to imagine what a complete stranger might think of our civilization if he could not read our writing. Art is the best testimony of the high perfection of the culture of the Aegeans. From their magnificent works of art, much can be surmised, if not actually proved, about their ideals, skill, and industry. Sir Arthur Evans, the greatest

authority on Cretan civilization, refers to it as "staggeringly modern." Another authority claims that the court of a Minoan king "must have resembled the joyous surroundings of a European prince of the 13th and 14th centuries, with a touch of the Tuileries of the Second Empire." The Aegeans had a marked influence upon the Greeks. Indeed, Greek civilization was so closely connected with the Aegean that it has been called "the daughter of Aegean civilization."

V. PERSIA

The People. As early as 1000 B.C., a strange people from the northern steppes, east and northeast of the Caspian Sea, appeared on the borderland of the eastern part of the Fertile Crescent. These people are called Indo-Europeans. The Medes and the Persians were the two most powerful tribes of Indo-Europeans who came into southwestern Asia. They were intruders, being racially different from the Semites, whose supremacy, until this time, had not been challenged in Asia Minor. They were vigorous and hardy people. Herodotus wrote that the Persian fathers taught their sons three things: to ride, to use a bow, and to tell the truth. "Better death than to be guilty of a falsehood" was a common proverb among the Persians. For a long time they were without writing or art, but they preserved in their minds rich traditions, which later formed the basis for their religion and literature.

1. GOVERNMENT

Early History. The Persians lived for centuries in the highlands overlooking the Tigris-Euphrates valley. From time to time, they took part in the wars, as allies of Semitic kings who could offer them sufficient inducement. In the 9th century B.C., they began taking part in campaigns against the Assyrians. In 702 B.C., Sennacherib was hard pressed by the united forces of the Medes and the Persians and, in 680 B.C., they invaded the Assyrian Empire. The Persian ruler, Cyrus, conquered the greater part of the Near East and the Ionian coast towns and established a great empire.

Extent of the Persian State. The empire created by Cyrus and extended farther by his son Cambyses (528–521 B.C.) was one of the greatest political organizations of antiquity. Except for his military

PERSIAN EMPIRE
500 B.C.
INDIA
INDIAN OCEAN
CASPIAN SEA
BLACK SEA
EUROPE
GREECE
HELLAS
MEDITERRANEAN SEA
NINEVEH
BABYLON
DAMASCUS
PERSIAN GULF
ARABIA
RED SEA
EGYPT
AFRICA

victories, little is known of Cyrus, who earned the title "the Great." He had little time to consolidate his state, since he fell in battle in 528 B.C. He was not a ruthless destroyer but respected and preserved many of the ideas of the conquered states. After the death of Cambyses (521 B.C.), there was a lull in Persian power, but it was revived with even greater grandeur by Darius (521–485 B.C.). Darius, although a military genius, was at the same time a great religious and political organizer. He managed to reunite the old empire of Cyrus and extended his realm into India and Africa, and across the Bosporus to Thrace. He met his first reverse at the hands of the Greeks at Marathon, in 490 B.C. Xerxes (485–465 B.C.) continued the struggle, but reverses came thick and fast from the rising power of the Greek city-states. Alexander the Great put an end to the glory of the Persian state in 331 B.C.

The Provincial System of Darius. The rule of Darius, the greatest of the Persian organizers, was autocratic, yet humane and intelligent. He set an example of one-man government that many ambitious rulers of later generations have tried to imitate. He made himself king of Egypt and Babylonia and divided the rest of his territory into 20 provinces. Each province was called a satrapy, and over each a governor, or satrap, was appointed to rule. The satraps were responsible to the king, but each was expected to direct the civil and military administration of his satrapy. In many cases, a satrap merely succeeded a former ruler, and life within the territory continued as before, as long as the people paid tribute and furnished soldiers for the Persian army.

Darius was not content to trust too much power in the hands of a satrap without taking due precaution. A general, independent of the satrap, was sent to command the provincial army. In addition, a secretary was stationed in each provincial capital, to observe the actions of officials and report to the king. Furthermore, a special agent, known as "The King's Eyes and Ears," traveled over the whole empire, to keep the emperor informed. Military roads and canals were constructed, to facilitate the movement of troops in putting down rebellion. A postal system and numerous government spies kept the king well informed as to what was going on in his kingdom.

The Persian system was not entirely new. Many of the ideas were borrowed from Babylonians, Assyrians, and Egyptians; but

in each case improvements were made. The virtues of the political system of the Persians resulted in great part from their religion, which taught that rulers were responsible to their god and that hope for immortality rested upon the fulfillment of a wise, just, and pious rule. The subjects were imbued with the same spirit. Their duty was to aid the king, their rightful ruler, in his divine and royal task. Conquered subjects submitted to the rule of the Persian king, not only because of the mighty Persian army, but also because they welcomed (as people of any age do) an efficient government under which their safety would be assured and their property protected.

2. THE ARTS

General Character. There are very few examples of fine arts produced by the Persians in ancient times. In many respects, they did not outgrow their original primitive shepherd life. Their religion, important as it was in their daily life, was not conducive to the development of art. They were impressed with the art of the people that they conquered and adapted it for their own monuments and decorations.

Architecture. Remains of the palaces of Cyrus and Darius at Pasargadae and Persepolis give us some idea of Persian architecture. The main buildings were erected on a hill, natural if possible but artificial if necessary, and were approached by a double, monumental stairway. At the top stood colossal winged bulls, similar to those produced by the Assyrians. The winged bull was used as a decoration for the capitals of columns. Roofs were of wood, the lightness of which made possible a room of spacious and lofty proportions. The decorations within the palace, often in bright-colored glazed brick, were mostly of figures representing the king and his servants. The whole scheme was uniform and impressive, even though not very artistically excuted. The tomb of Cyrus is comparatively well preserved. It was built in pyramid shape, with six terraces, at the top of which is a gabled house. It has greater dignity and simplicity than is found in the palaces.

3. RELIGION

Origin. Religion was the most interesting of the Persians' contributions. Early in their cultural development, they followed

an animistic cult, believing that the gods Ashura, Anaheta, Mithra, and Haoma dwelt in natural objects. Zoroastrianism superseded this cult and became the accepted religion of the Persians.

Zoroaster. There is a central hero in most of the great religions. His actual earthly existence may not be historically proved but that is not necessarily an important point. The significant thing is the effect that his teachings had upon the people. Zoroaster, the supposed founder of the religion that bears his name, may or may not have been a real man. According to tradition, he was born about 600 B.C. in northwestern Iran, somewhere in the neighborhood of present-day Armenia. Zoroaster was reputed to have been much more than an ordinary man. His appearance on earth was made possible through a trinity: Glory, the Guardian Spirit, and the Material Body. Evil demons opposed his birth and tried to choke him immediately after he was born. The people regarded his birth as a victory for righteousness and his whole life was a succession of struggles and victories over evil forces. The divine revelation came to Zoroaster while he was wandering in the desert searching for light. After the gods had revealed themselves to him, he returned to his fellow men to preach and show them the way of salvation. For years, his appeal went unheeded. Suffering and privation, neglect and temptation did not change his course. His first convert was a cousin, and finally he won over a mighty ruler. With a ruler to back it, the religion spread rapidly.

The Gospel. Zoroastrianism is based upon the belief that there is a constant struggle between the forces of right and wrong for the mastery of the world. Mazda, the wise spirit, or God of Light, represented good thought, right law, noble government, and immortality. Opposed to him was the Lie Demon, the spirit of evil, filth, and darkness, who was supported by all the evil spirits. This struggle applied not only to the life of man but to everything. Constructive forces are constantly opposed by destructive forces; storm and floods destroy crops; weeds crowd out grain; and poisonous snakes kill the valuable ox. Man must choose between these two forces. If he chose to enlist on the side of Mazda, he was expected to work and fight for the cause of Mazda. Justice, not mercy, was the standard. Mercy was not to be shown to the enemy but aid, even at great sacrifice, was to be given the good. Fire was

held in high veneration as a synbol of Mazda, and its cleansing qualities were supposed to be unexcelled.

Future Life. The Persians had a unique conception of future life. Man was conceived as being essentially a dual personality. The spiritual element was life; it acted, thought, and moved, while the body element was merely the tool of the former and perished when separated from it. As a result, the Persians did not concern themselves about the dead body; the part that had importance was gone. The cadaver was considered vile and contaminated. If it should be touched by anyone, he had to be thoroughly cleansed, preferably with cow urine. The struggle between the two opposing forces of right and wrong was supposed to continue even after death. A continuous battle raged between the forces of heaven and the forces of hell. Ultimately, Mazda would win. All the hills and the mountains would melt and everyone would have to pass through the molten lava. To the righteous the lava would feel no hotter than warm milk, but to the wicked it would be scalding hot. When Mazda had completed his victory, evil would be no more and everything would be peaceful and quiet.

Decline of Zoroastrianism. Zoroastrianism declined from the high ideals and practices of its early existence. The priests gradually obtained a complete hold on salvation. They concerned themselves not only with salvation but also with political, economic, and social affairs. Mazda was made worldly and personal. The six spirits were personified and increased to thousands in number. Magic and taboo, many of the heathen practices that Zoroaster had prohibited, found their way back into common practice. Religious activities were devoted mainly to magical incantations through which a person tried to purify himself.

Importance of Zoroastrianism. While Zoroastrianism deteriorated, to disregard it for that reason would be unfair, just as it would be unreasonable to neglect Roman civilization because Rome fell. This religion served as a high standard of conduct for the Persians for centuries, and it left its mark upon later religions. The Jews borrowed their idea of hell and Satan from the Persians, and these features were passed on to Christianity and Mithraism. Mohammedanism also was influenced by Zoroastrianism, and many less important beliefs were likewise affected.

Mithraism. Mithraism was a connecting link between Chris-

tianity and Zoroastrianism. In character, it was a degenerate form of Zoroastrianism and a revival of pre-Zoroastrian practices. Mithra was a young sun hero similar in many respects to the neolithic solar god. He was supposed to have killed the solar bull, to have assumed his position, and to have given the carcass to his worshipers as the meat of life, which assured resurrection. Mithraism appealed to the more ignorant class and to many Romans who had become disgusted with the religious practices of the later empire. Several of the German barbarians accepted Mithraism in preference to Christianity, because they could not understand the latter. For some time, Mithraism was the chief competitor of Christianity, but it ultimately declined and passed out of existence.

4. LITERATURE AND LEARNING

Writing. When the Persians came into contact with the peoples of Asia Minor, they had no written language. They adopted Aramaic for business correspondence and their scribes ultimately devised an alphabet that made possible the use of some of their own expressions. The old Persian language was closely related to Sanskrit. Both were dialects of an older tongue and belonged to the Indo-European group. The Persian alphabet contained 39 cuneiform signs and was bilingual. Since the Persians apparently thought that a written language existed for business purposes, little of their literature was written, although they had many myths that were handed down in unwritten form.

Literature. Literature among the ancient Persians is almost an unknown quantity. They had love songs, but not even fragments of them have been preserved, and only a few scraps of their epics have been found. Some of their stories have an echo in *The Arabian Nights*, but those cannot be regarded as purely Persian. Almost all the known lyric poetry is found in *The Avesta*, a collection of Zoroastrian songs and prayers. While they exemplify a high religious fervor and moral enthusiasm, they strike the modern reader as being cold and sober. Certain sections dealing with Mithra, the fate of the soul after death, and the end of the world are vivid, but not so emotional as the Persian intended religion to be.

Learning. Persian learning was largely a branch of the religion. The most important factor was man's relationship with his god, everything else being secondary or else completely neglected.

Metaphysics was given considerable attention. Everything in nature, in history, and in the individual was explained in the struggle between the forces of good and evil. The pure sciences fared rather badly. Medicine was practiced through prayers, penance, and acts of purification. Although learning was prized, the pursuit of it did not go far beyond the cultivation of a desire.

5. ESTIMATE OF PERSIAN CIVILIZATION

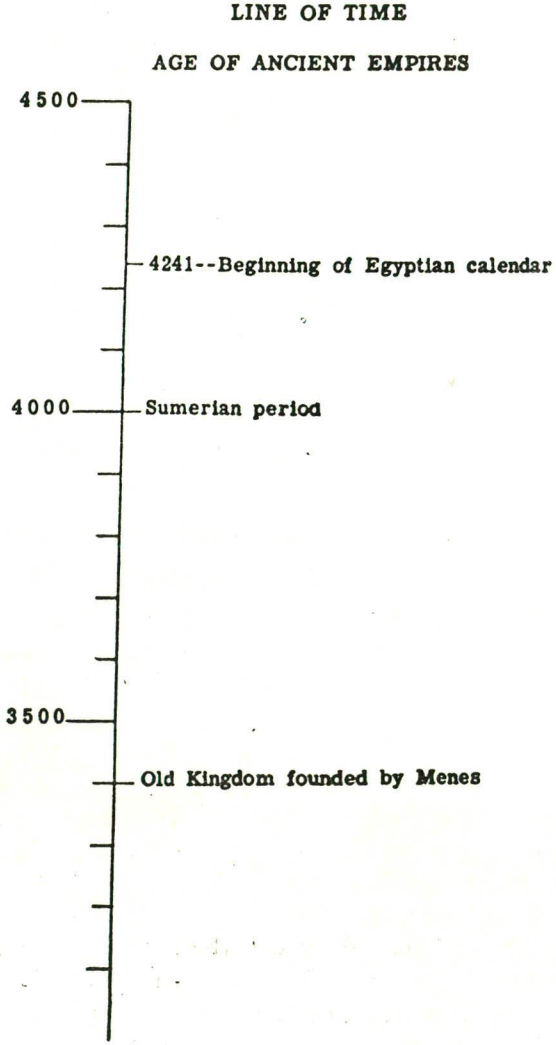
In spite of the fact that the actual contributions of the Persians to world civilization were insignificant compared with those of some of the other ancient peoples, they performed an important mission. They improved on the Assyrian system of political administration and made possible a period of peace and prosperity that lasted nearly 200 years. The efficiency of their government was not equaled until the establishment of the Roman Empire. Their religion—the most original of their accomplishments—marked an important step in the attempt to satisfy the spiritual desires of man. One outstanding achievement of the Persians was that they succeeded in bringing the various civilization centers under one rule, which worked toward the development of a more cosmopolitan culture. This work of unification, begun under the Persians, was carried forward with considerable success by Alexander the Great.

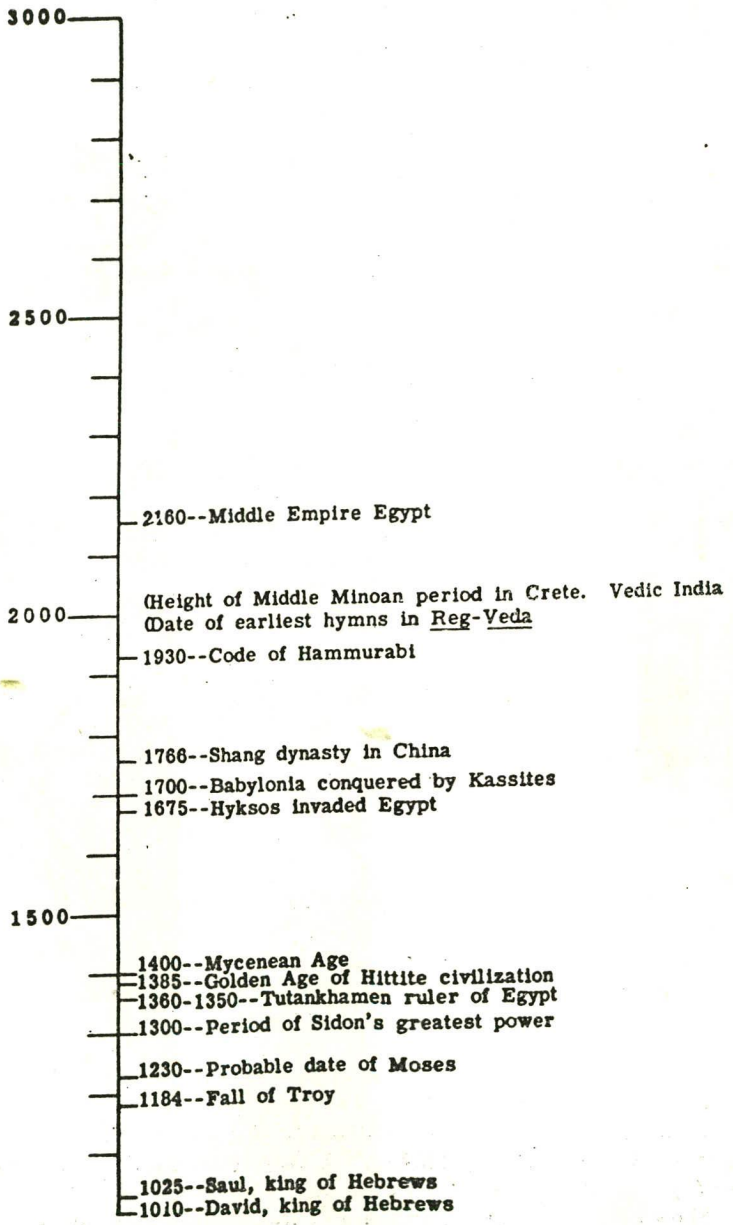
VI. THE DECLINE OF THE ANCIENT NEAR-ORIENTAL CIVILIZATION

Contributions. The achievements of the peoples of the Near Orient, taken collectively, form an amazing and interesting list. Metals, paper, glass, pottery, cloth, and ships are important items that were introduced by them. They devised irrigation projects, organized governments, initiated written law, and developed trade and commerce. They erected buildings, evolving and utilizing the colonnade, the arch, and the tower. They originated art, writing, literature, the calendar, and religion. In short, almost all that is essential and fundamental in present-day living had its beginning in that early period.

Reasons for Decline. Why did these ancient peoples progress no further than they did? Why do we find only the beginning of these important cultural developments and not a more finished

product? Part of the answer can be discovered in the character of their governments. Freedom and individual liberty were almost unknown. The ruler bore most of the responsibility for the advancement of his people, and unfortunately there were comparatively few who could carry out this task successfully. The temptation to live a life of luxury and seclusion was too great for most of them. Religion also had a retarding influence. Gods were given credit for doing everything and having control of everything,




3000
2500
2160--Middle Empire Egypt
2000
(Height of Middle Minoan period in Crete. Vedic India
(Date of earliest hymns in Reg-Veda
1930--Code of Hammurabi
1766--Shang dynasty in China
1700--Babylonia conquered by Kassites
1675--Hyksos invaded Egypt
1500
1400--Mycenean Age
1385--Golden Age of Hittite civilization
1360-1350--Tutankhamen ruler of Egypt
1300--Period of Sidon's greatest power
1230--Probable date of Moses
1184--Fall of Troy
1025--Saul, king of Hebrews
1010--David, king of Hebrews

and man made very few attempts to inquire into the natural causes of things. The Hebrew prophets attempted to free the people, but intellectual freedom made little progress until the time of the Greeks.

Review Questions

1. Show the effect of environment on the history of Egypt. Justify the statement, "Egypt is the daughter of the Nile."

2. Describe the Egyptian political system. Why did it fail? There is a political similarity between the recent Japanese emperor and an Egyptian Pharaoh. What is it?

3. Account for the great variety of types of religion in Egypt. What progress was made toward monotheism?

4. List and evaluate Egyptian contributions.

5. Describe the Code of Hammurabi. Why is it so important? Are there any modern survivals of ideas expressed in this code?

6. Contrast the religion of the Persians with that of the Egyptians.

7. Trace the evolution of the Hebrew religion. How did it differ from the other religions of the time?

8. Account for the slight progress made in science in the age of ancient empires.

9. Why was there a decline in the civilizations of the Near East?

10. Identify or define: hieroglyphic, papyrus, cuneiform, ziggurat, Osiris, Ishtar, Karnak, Knossos, Menes, Hyksos, Hatshepsut, Ra, Amon, Champollion, *Book of the Dead*, Kassites, Babel, Sargon, Marduk, *Adapa*, *Etana*, David, Jehovah, Amos, Jeremiah, *Talmud*, Schliemann, Arthur Evans, Cyclopes, the Lion Gate, fetishism, Cyrus, Mazda, Mithraism, and the *Avesta*.

Problems

1. Show what all the cultures listed in Chap. IV had in common.

2. Make a list of the ideas and practices in the religions of this age that influenced Christianity.

3. Find out all you can about the ziggurat. Draw a plan for a ziggurat, showing different uses made of it.

Map Study

Secure Denoyer-Geppert Outline Map No. 18090, or a similar map.

1. Locate the following: (*a*) Fertile Crescent; (*b*) Persian Gulf; (*c*) Crete; (*d*) Sinai Peninsula; (*e*) the Nile, Halys, Tigris, and Euphrates rivers; (*f*) Cairo; (*g*) Karnak; (*h*) Memphis; (*i*) Thebes; (*j*) Troy; (*k*) Mycenae; (*l*) Assur; (*m*) Akkad; (*n*) Nineveh; (*o*) Iran; (*p*) Babylon; and (*q*) Syene.

2. Show the extent of the Egyptian Empire in the 15th century B.C. Bound the empires of (*a*) the Babylonians, (*b*) the Assyrians, (*c*) the Hebrews, (*d*) the Phoenicians, (*e*) the Aegeans, and (*f*) the Persians.

3. Locate the homes of the following: (*a*) Hittites, (*b*) Sumerians, (*c*) the Aramaeans, (*d*) the Philistines.

4. Show the distribution, about 500 B.C., of the following; (*a*) Semites, (*b*) Hamites, and (*c*) Indo-Europeans.

Bibliography

GENERAL ACCOUNTS

Blackmar, *History of Human Society*, 9–10.

Breasted, J. H., *Ancient Times, A History of the Early World* (Ginn, 1916), 2–5, 10. An excellent elementary history of ancient times.

Browne, L., *This Believing World* (Macmillan, 1927), Book 11, 2–3. "A simple account of the great religions of mankind."

Cambridge Ancient History, I, 3–9, 16–17; II, 3–10, 11–16; III, 1–7, 12–14, 16–21.

Newbigin, M. I., *The Mediterranean Lands, An Introductory Study in Human and Historical Geography* (Knopf, 1924), 4. A good description of river valleys of the eastern Mediterranean area.

Rostovzeff, M. I., *A History of the Ancient World* (Oxford, 1926), I, 1–11. Scholarly and beautifully illustrated. Economic and social factors are stressed.

Schneider, H., *The History of World Civilizations from Prehistoric Times to the Middle Ages* (Harcourt, Brace, 1931, 2 vols.), I, *passim*. A detailed and comprehensive work.

Thorndike, L., *History of Civilization*, 4–8.

Turner, R., *The Great Cultural Traditions*, I, *passim*.

Wells, *Outline of History*, 14–20.

SPECIAL REFERENCES

Egypt

Breasted, J. H., *History of Egypt* (Scribner's, 1912). A complete readable account. Good for finding answers to special questions that may have been raised in your mind.

———, *Development of Religion and Thought in Ancient Egypt* (Scribner's, 1912).

———, *Dawn of Conscience* (Scribner's, 1934). Excellent chapters on the development of ideas that have been significant in human thought.

Capart, J., *Egyptian Art* (London, 1923).

Durant, W., *The Story of Civilization*, I, 8. "Our Oriental Heritage" (Simon & Schuster, 1935). A popular work with a good account of Oriental philosophy.

Erman, A., *A Handbook of Egyptian Religion* (Dutton, 1907).

———, *The Literature of the Ancient Egyptians* (London, 1927).

Moret, A., *The Nile and Egyptian Civilization* (Knopf, 1927).

Petrie, W. M. F., *The Arts and Crafts of Ancient Egypt* (London, 1923).

———, *Social Life in Ancient Egypt* (Houghton Mifflin, 1924). Here are two very stimulating books filled with interesting and useful information.

Stites, *The Arts and Man* (McGraw-Hill, 1940), 4.

Civilizations of the Tigris-Euphrates Valley

Cowley, A. E., *The Hittites* (Oxford, 1926). A good book but a little out of date.

Garstang, J., *The Hittite Empire* (Long and Smith, 1929). One of the most recent books on this little-known subject.

Harper, R. F. (ed.), *Assyrian and Babylonian Literature* (Appleton-Century, 1901).
———, *The Code of Hammurabi* (University of Chicago, 1904). This book contains a reprint of much of the code, with explanations.
Jastrow, M., *The Civilizations of Babylonia and Assyria* (Lippincott, 1915).
———, *Religious Beliefs in Babylonia and Assyria* (Putnam, 1911). The author is the best known authority on these civilizations.
King, L. W., *History of Babylon* (Stokes, 1915). A general account.
Wooley, C. L., *The Sumerians* (Oxford, 1928). Chapter 4, on Sumerian society, is especially good.

The Hebrews

Barton, G. A., *A Sketch of Semitic Origins, Social and Religious* (Macmillan, 1902). An excellent background of Hebrew religion.
———, *Archaeology and the Bible* (American Sabbath School Union, 1925). The Bible in the light of recent excavations.
Jastrow, M., *Hebrew and Babylonian Traditions* (Scribner's, 1914). An account of the literature of these early peoples.
Kent, C. F., *History of the Hebrew People* (Scribner's, 1896–1897, 2 vols.). A general history.
Kittle, R., *The Religion of the People of Israel* (Macmillan, 1925).
Sachar, A. L., *History of the Jews* (Knopf, 1932). This work shows the influence of the Hebrews on later civilizations.

The Aegeans

Baikie, J., *The Sea-kings of Crete* (Macmillan, 1926). This shows the political organization and the commercial expansion of early Crete.
Childe, V. G., *The Dawn of European Civilization* (Knopf, 1925).
Evans, A. J., *The Palace of Minos* (Macmillan, 1921–1935, 6 vols.). A description of one of the finest examples of Aegean architecture.
Glotz, G., *The Aegean Civilization* (Knopf, 1925). A summary.
Hawes, C. H., and H. B. Hawes, *Crete: The Forerunner of Greece* (1922). A brief analysis.

The Persians

Dhalla, M. N., *Zoroastrian Civilization* (Oxford, 1922). A good account of the early history of the Persians.
Jackson, A. V. W., *Persia, Past and Present* (Macmillan, 1906). A good description of the organization of the Persian empire.
———, *Zoroaster, the Prophet of Ancient Iran* (Macmillan, 1899).
Rogers, R. W., *A History of Ancient Persia* (1928). An excellent general survey.
Sykes, P. M., *History of Persia* (Macmillan, 1930, 2 vols.). A very comprehensive account. It has most of the details any beginning student needs on this subject.