What Do We Know?

History is the study of change over time. Studying history helps us understand how all cultures are influenced by the changing environment. We also learn how different peoples developed skills over time.

What we know for sure about early humans is really very little. We speculate on the bits and pieces of evidence that we find. With these we try to piece together the story of humankind. And as new evidence is found, we change our idea of what life was like.

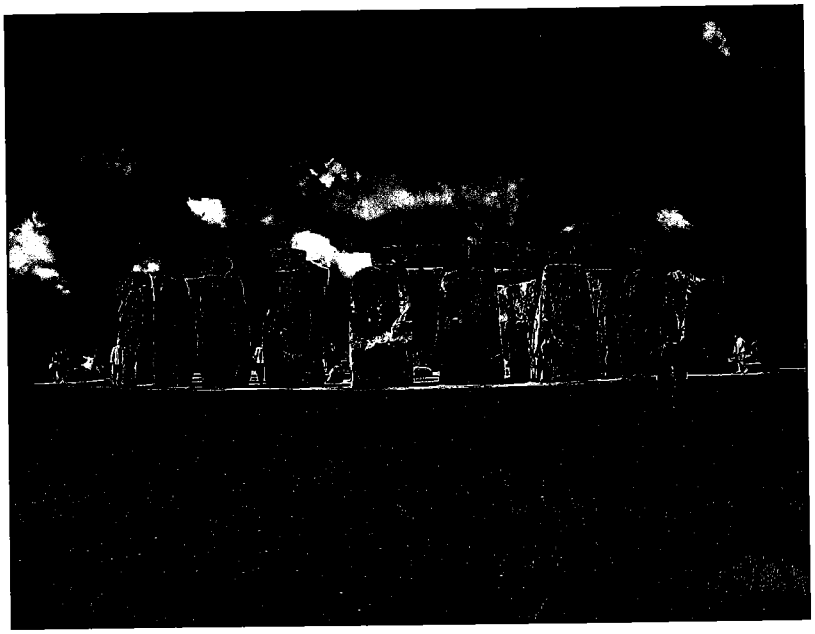
For example, at one time humans knew nothing of the dinosaurs that roamed the earth for millions of years. Then the remains of dinosaurs were discovered, so we began to picture an ancient history in which humans hid in caves from Tyrannosaurus Rex, and hunted Diploducus [dih-PLAH-duh-kus]. New evidence, however, proved that the dinosaurs died out long before humans walked the earth. So scientists revised their beliefs about early human life once again.

Scientists answer their questions by interpreting the evidence available to them. They justify their interpretations by giving facts or reasons that explain the evidence they have. But scientists do not accept any idea as proven for all time. As they uncover more evidence and use new technologies, they justify new interpretations.

CE stands for the Common Era, which includes all years after and including Year 1. BCE stands for Before the Common Era.

Hypotheses About Human Beginnings

Two widely held hypotheses about the origin of humans are **creationism** and **evolution**. For hundreds of years, scholars and scientists have been energetically debating these positions. Both hypotheses address the question of where humans come from.



Neolithic people made Stonehenge on the Salisbury Plain in Britain around 2550 **BCE**. Most evidence indicates that the builders moved the huge bluestones from a site 240 km away. New evidence suggests that the stones may have been moved by glaciers. Though not convinced, few scientists rule out this possibility. Instead, they wait for more evidence to appear.

PERSPECTIVES

The Origin of Humans

Evolution

Human evolution is a scientific theory that explains the origin and development of the human species. According to theories of **evolution**, simple forms of life change gradually, over many generations, into more complex forms of life.

Scientists believe that human-like beings first populated the earth about four million years ago. Many believe that humans developed from a simpler, ape-like species.

Although scientists may disagree on various aspects of ancient life, most believe the theory of evolution because it is based on scientific observation of evidence.

Creationism

Creationism is the belief that the universe and everything in it was created by a divine being. Many people have faith that this is true. Many see no conflict between this belief and the processes of evolution described by science. They believe that God created the processes of evolution along with everything else.

Virtually every culture on earth has a creation story that explains the creation of the earth, of plants and animals, and of human beings. These explanations reveal and strengthen our beliefs, values, customs, and rules for society. They help us know who we are.

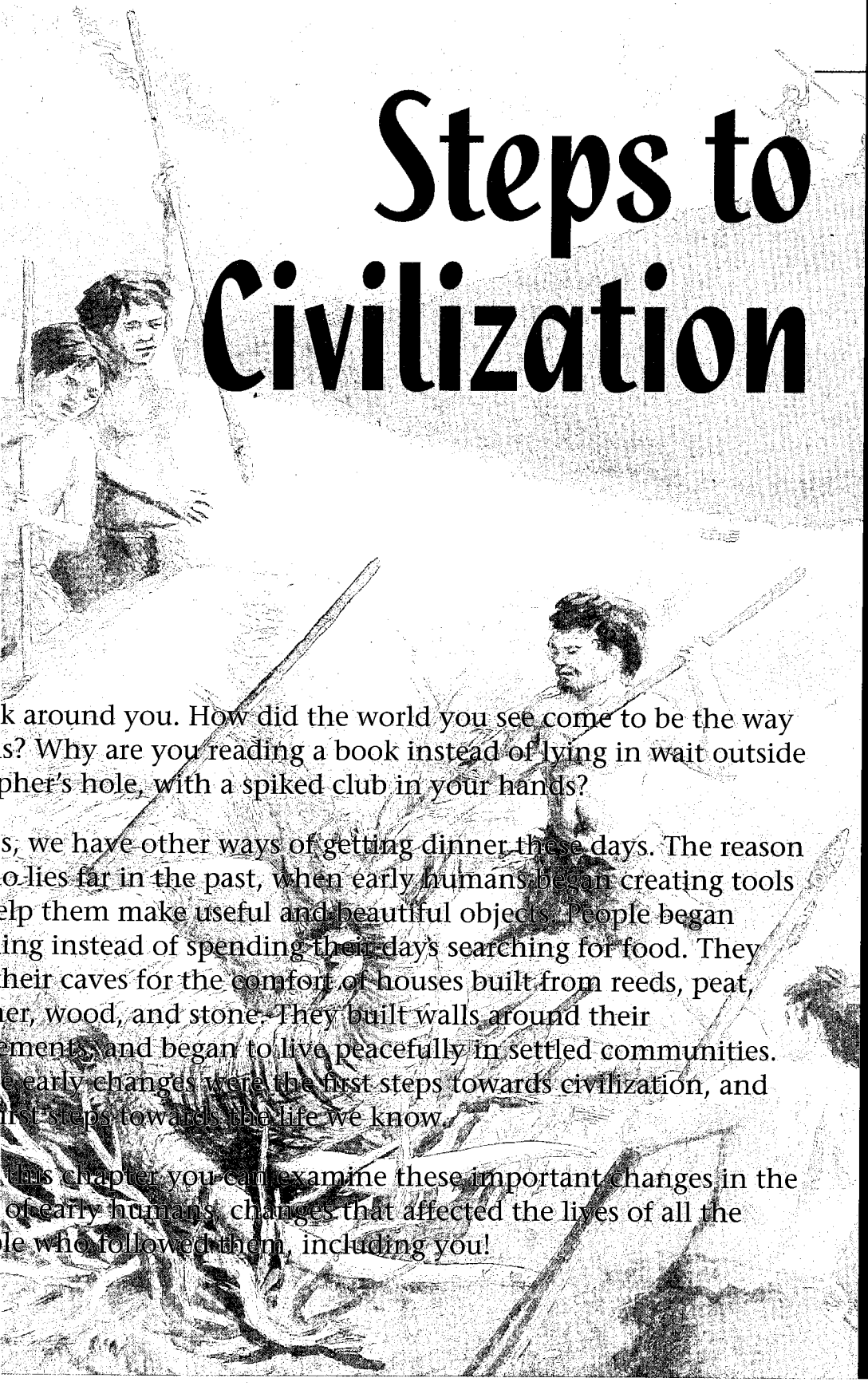
Ancient Stories

The Mayan Creation Story

Over 2000 years ago, the Maya developed a complex civilization with a far-reaching network of trade. They built stunning buildings, including pyramids, and developed a calendar using their knowledge of astronomy. They also developed a system of writing. The following is a version of a creation story from one of their books, the Popol Vuh [POH-pul VUH].

Before creation there were no people, animals, birds, fish, crabs, trees, or stones. There was only a calm sea. The creators, K'ucumatiz [koo-koo-MAH-teez] and Tepew [TEE-yoo], first made the earth with its mountains, plains, and rivers and then made animals like deer, jaguar, and snakes. The creators assigned each animal its own place to live in the newly created world.

The creators next ordered the animals to speak so that they might praise the creators for their work; the animals, however, could not speak. The creators then decided to make creatures that could; these would be people. The first people, made of mud, could speak, but they had no minds



Steps to Civilization

k around you. How did the world you see come to be the way
s? Why are you reading a book instead of lying in wait outside
pher's hole, with a spiked club in your hands?

s, we have other ways of getting dinner these days. The reason
o lies far in the past, when early humans began creating tools
elp them make useful and beautiful objects. People began
ing instead of spending their days searching for food. They
heir caves for the comfort of houses built from reeds, peat,
er, wood, and stone. They built walls around their
ements, and began to live peacefully in settled communities.
e early changes were the first steps towards civilization, and
rst steps towards the life we know.

this chapter you can examine these important changes in the
of early humans, changes that affected the lives of all the
le who followed them, including you!

Australopithecus (southern ape)

Approximately 1.2 to 4 million years ago

Scientists call *Australopithecus* [ah-struh-loh-PIH-thih-kus] a "prehuman hominoid," which means that they were not fully like human. The study of their fossilized skeletons suggests that they were apelike, but walked on two legs instead of four. They had small brains, and teeth similar to today's humans.

Australopithecus could use only the simplest tools. For example, they might push a twig into an anthill, and then pull it out covered in ants.

Homo habilis (handyman)

2 to 1.5 million years ago

Scientists consider *Homo habilis* [HOH-mo HAH-bee-lis] the first real human. The length of the bone fossils shows that these people walked upright with long, dangling arms. Other evidence suggests that they made crude shelters from branches and used stones as tools. For this reason, archaeologists nicknamed *Homo habilis* "handyman." Though not skillful hunters, these humans did eat meat if they found discarded carcasses.

By knocking stone flakes off of hard stones, *Homo habilis* produced tools for chopping, scraping, and cutting. What would these humans want to chop, scrape, and cut?

Homo erectus (upright man)

1.6 million to 80 000 years ago

Homo erectus [HOH-moh ee-REK-tus] looked more like us than earlier humans did. They were as tall as we are, but they were stronger. Measurements of the skull cavity suggest that *Homo erectus* had a bigger brain than *Homo habilis*, but they could not talk. Other evidence indicates that "upright man" had learned how to make fire.

Homo erectus could make complex tools, including a hand axe and tools for butchering. These tools allowed *Homo erectus* to hunt game from Africa to Asia.

Homo sapiens (Neanderthal)

133 000 to 32 000 years ago

Sapiens means "thinking." Early *Homo sapiens*, commonly known as Neanderthals [nee-AN-der-thals], were smarter than earlier humans. Their remains and the items they left behind suggest that they made stone knives, a process that takes nine steps and about 250 blows. Neanderthals built shelters and other structures to protect themselves. Some scientists say that these were the first people to bury their dead.

Besides making stone knives, Neanderthals also made throwing weapons such as harpoons and spears.

***Homo sapiens* (Cro-Magnon)**

100 000 to 10 000 years ago

Cro-Magnon [kroh-MAG-nun] humans, another group of *Homo sapiens*, had even bigger brains and a real capacity for complex thinking. Cro-Magnons are named after the place where they were first found, in France. Evidence found in caves there suggests that Cro-Magnons invented a variety of tools to hunt and fish, paint and draw, sew, make music, and fight with others. Cro-Magnon humans made both fish hooks and needles from antlers.

Cro-Magnon burial sites contained objects such as beads, fur garments, and ivory jewellery. This suggests that Cro-Magnon lived, at least part of the year, in a settled community.

***Homo sapiens sapiens* (modern humans)**

10 000 years ago to the present

Homo sapiens sapiens is the species to which modern-day people belong. Evidence of these humans first appeared in Africa. By virtue of their superior tool-making skills, these modern humans survived the last Ice Age and went on to populate the earth. Only with *Homo sapiens sapiens* did human civilization finally become possible.

Besides precisely made tools, modern humans developed their tool-making skills in other areas—for example, by weaving baskets from reeds.