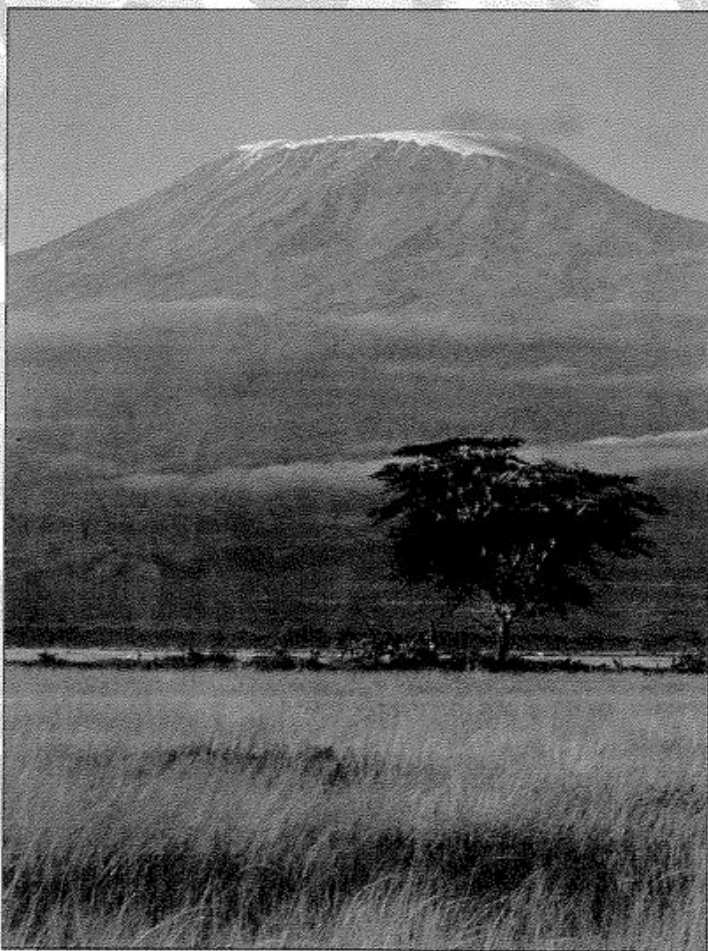


Chapter 3

GEOGRAPHY AND EARLY HISTORY OF AFRICA



Mount Kilimanjaro The vast continent of Africa includes a wide variety of landforms, including mountains. The snow-covered summit of Mount Kilimanjaro in Tanzania, seen here, provides a sharp contrast with the plains at the base of the mountain. **Diversity** How do varied landforms and climate contribute to cultural diversity?

CHAPTER OUTLINE

- 1 The Shape of the Land
- 2 Climate and Diversity
- 3 Early Civilizations of Africa

“**T**here was wind and rain. And there was also thunder and terrible lightning.” So begins a story of creation as told by the Kikuyu people of Kenya. While the land was in darkness, the Creator put up a holy tree. At the foot of the tree, the Creator set the first people—the man Kikuyu and the woman Mumbi. Immediately, the sun rose.

The Creator then took Kikuyu and Mumbi from his holy mountain to the “country of ridges.” There the Creator showed them all the land. He told them,

“This land I hand over to you. O man and woman
It's yours to rule and farm
in peace, sacrificing
Only to me, your God,
under my sacred tree.”

Through stories like this one, the peoples of Africa explain their roots. The stories differ across the continent because Africans belong to many distinct groups. In this

unit on Africa, you will learn about the forces from within and from without that have shaped Africa's many cultures.

CHAPTER PERSPECTIVE

In Africa, as elsewhere in the world, people have adapted to many different environments. The story of Kikuyu and Mumbi, for example, describes mountains and ridges that are found in East Africa. In other parts of Africa, stories tell of mighty rivers, flat grasslands, and wide deserts. Such stories show how differences in climate and topography shape cultures.

As you read, look for these chapter themes:

- ▶ Geographic features have influenced where people live in Africa and contributed to the cultural diversity of the continent.
- ▶ Since earliest times, people, goods, and ideas have crossed the physical barriers that divide Africa and separate it from other regions.
- ▶ Recent evidence suggests that the first humans lived in Africa.
- ▶ The fertile Nile Valley supported one of the world's first great civilizations.

Literature Connections

In this chapter, you will encounter passages from the following works.

- "Creation Story," Kikuyu tale
- "A Hymn to the Nile," from the Papyrus Scrolls

For other literature suggestions, see Connections With Literature, pages 804-808.

1

THE SHAPE OF THE LAND

FIND OUT

- What is Africa's relative location in the world?
- How have landforms influenced movement across Africa?
- What natural resources are important to African nations?

Vocabulary escarpment, cataract, hydroelectric power

Thousands of years ago, hot ash and melted rock spewed out of the earth, creating a giant mountain. Today, Mount Kilimanjaro towers 19,340 feet (5,895 m) over northeastern Tanzania. Kilimanjaro stands almost on the Equator. Yet, because of the mountain's great height, its summit is covered with snow all year round.

Mount Kilimanjaro is a spectacular sight. It is just one of the wide variety of landforms that make up the African continent.

A Vast Continent

Africa is the world's second-largest continent, the biggest after Asia. It is more than three times the size of the United States. It also contains more independent nations than any other continent on Earth—55 in all.

Location. Africa is centrally located on the Earth's surface. It straddles the Equator, extending for thousands of miles north and south of that line. The continent stands between two major oceans. To the west is the Atlantic Ocean and to the east lies the Indian Ocean. The Mediterranean Sea in the north and the Red Sea in the northeast also border Africa.

Although oceans set Africa apart from other regions, they also link it with the rest of

the world. In ancient times, ships sailed along the Mediterranean and Red Sea coasts. These ships carried people, goods, and ideas between Africa and Europe and the Middle East. As you will read in Chapter 4, seasonal winds also allowed traders to sail from Africa across the Indian Ocean to South Asia. Today, Africa's location places it squarely in the center of world transportation routes.

Regions. Africa, like other continents, has many distinct regions. The main regions are North Africa, West Africa, East Africa, Central Africa, and Southern Africa. Geographic features give each region its own identity, although great variety also exists within each region. Regional differences contribute to the diversity of African peoples.

North Africa stretches from Morocco in the west to Egypt in the east. Because of its location, it has always had close contact with Europe and the Middle East. At the same time, North Africa is closely linked to the regions south of the Sahara. These regions are sometimes referred to as sub-Saharan Africa.

South of the Sahara, West Africa bulges into the Atlantic. It includes many nations, from Mauritania to Nigeria. Central Africa includes the large nation of the Democratic Republic of the Congo, on the Equator. In East Africa, the largest nations are Kenya, Uganda, and Tanzania. The region of Southern Africa stretches from the Atlantic Ocean to the Indian Ocean and includes Zimbabwe, Zambia, and South Africa. (See the map on page 62.)

Landforms

Most of Africa is a vast plateau. Toward the edges of the continent are mountain ranges, such as the Atlas Mountains in the northwest and the Drakensberg Mountains in the southeast. Narrow plains fringe the coasts.

Plateaus. The plateaus of Africa lie at different elevations. The highest plateaus are in the east and south. The continent then tilts gradually downward toward the west and north. Large basins, swamps, and lakes are scattered across the plateaus.

As you move from the plateaus toward the coast, the land drops sharply. In places,

escarpments, or steep cliffs, divide the plateau from the coastal plain. These changes in elevation affect the course of Africa's rivers. As rivers flow from the plateau to the coast, they tumble over a series of cataracts, or large waterfalls, and rapids.

Over thousands of years, Africans have migrated across the plateaus. Traders followed well-traveled routes through parts of the continent. The land, however, discouraged early Europeans who tried to explore the continent. When they tried to sail up rivers, they found the way blocked by cataracts.

Great Rift Valley. The Great Rift Valley slices through the eastern part of the continent. This giant fault, or break, in the Earth's crust runs from the Red Sea to the Zambezi River. The valley—actually a series of mountains and valleys—was formed millions of years ago. (See the feature at right.)

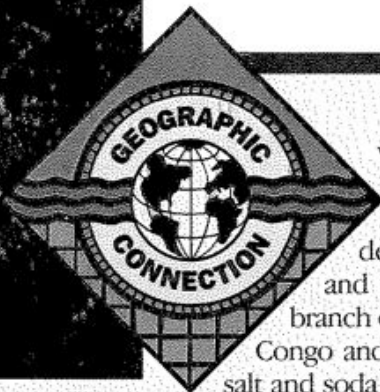
Flanking the Rift Valley are high, clifflike walls. Over centuries, rich soils from the highlands have washed down into the valley. As a result, the region contains some of Africa's most fertile farmland. The Rift Valley is rich in minerals and metals, but mining and transportation are difficult. The sheer cliffs, high mountains, and deep valleys make building roads and railroads costly and dangerous.

Rivers

The rivers of Africa provide fish, water for irrigation, and a means of transportation. They are also a source of hydroelectric power, energy produced by moving water. Today, African nations are constructing dams across rivers to supply cities and industries with electricity.

The Nile. Flowing for 4,160 miles (6,695 km) northward across Africa, the Nile River is the longest in the world. The Nile has played a key role in human development. As you will read, one of the earliest civilizations developed in the fertile Nile Valley of northeastern Africa.

Until recently, the Nile flooded each year. The flood waters deposited silt in the river valley, adding nutrients to the soil. The rich farmlands along the Nile supported a large population.



The Great Rift Valley

After sailing over the Great Rift Valley in a hot-air balloon, a visitor commented:

“ The view of the Rift made a tremendous impression on me, partly because I was terrified. . . . Mountains often have cliffs, but not, in general, a succession of steep descents. The ground fell away dramatically, as if giant steps had been carved in the rock. ”

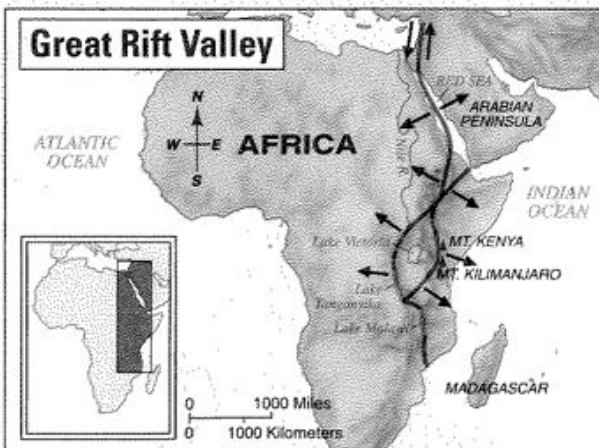
The Rift is a split in the African continent. It extends 4,000 miles (6,437 km) from the Middle East southward along East Africa to Mozambique.

Several natural forces have formed the Great Rift Valley. According to scientists, the plates that make up the Earth's crust have moved apart over millions of years, creating the deep gap. (The island of Madagascar may have split off from Africa in the same way.) Erosion has deposited rich soil in the base of the valley. Volcanic activity has created mountains, such as Mount Kilimanjaro and Mount Kenya.

The rift zone supports a wide variety of economic activities. The volcanic soil provides fertile farmland. Two of the Earth's deepest lakes—Lake Tanganyika and Lake Malawi—cover the western branch of the rift along the borders of D.R. Congo and Malawi. The lakes are sources of salt and soda ash. Steam and hot springs lie below the surface of the valley. Scientists hope to harness these sources of clean energy.

Other scientists are interested in the region for a totally different reason. The rich volcanic ash is a good agent for preserving bones. Archaeologists have dug up the world's oldest human fossils in the Great Rift Valley, leading to the theory that this may be the site of the origin of all humans.

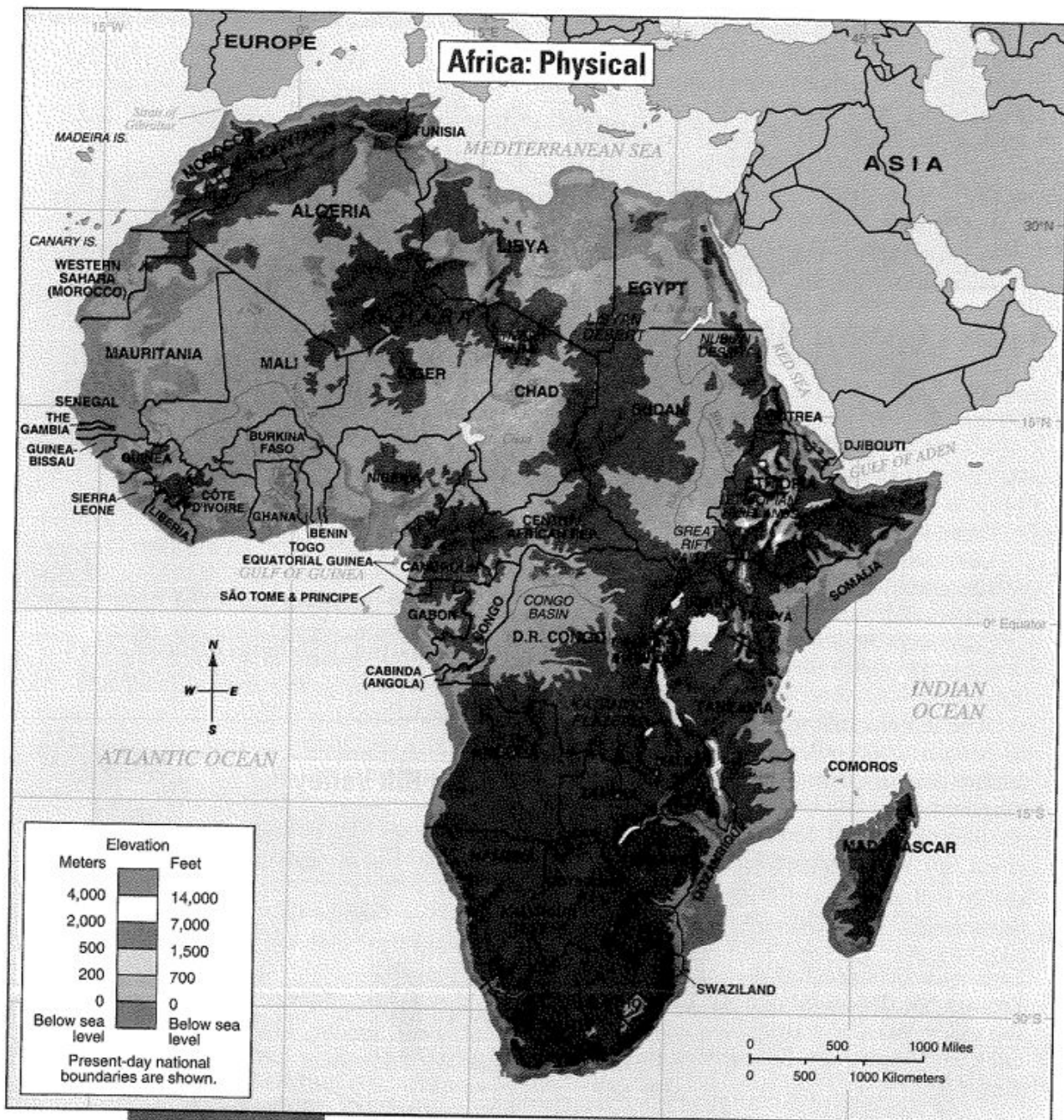
1. What natural forces have helped create the Great Rift Valley?
2. **Forecasting** If shifting continues in the Great Rift Valley, how might the map of Africa look in 40 million years?



Technology has changed the yearly flooding of the Nile. In 1970, Egyptians completed the massive Aswan Dam, located on the upper Nile. The dam supplies hydroelectric power. It also created a vast lake that stores water for irrigation. The dam, however, has been a mixed blessing. It traps the rich

silt that once renewed Egyptian soil, so farmers in the lower Nile Valley now must buy fertilizer.

In the 1800s, European explorers became fascinated with the idea of finding the source of the Nile. In daring expeditions, they competed to reach the headwaters of the great



MAP STUDY

Africa is the second-largest continent in the world. Most of its land is a plateau.

- 1. Location** What two rivers come together to form Africa's longest river?
- 2. Region** (a) Which parts of Africa have the highest elevation? (b) Which parts have the lowest elevation?
- 3. Drawing Conclusions** In what parts of Africa do you think most people live today? Check your answer by referring to the map on page 782.

river. In time, they traced the river's various sources in the highlands of East Africa.

Other key rivers. The Congo River drains a huge area in Central Africa. The river is fed by many tributaries on both sides of the Equator before emptying into the Atlantic Ocean. The Congo carries an enormous volume of water, and it provides hydroelectric power. Only part of the river, however, can be used for transportation. Waterfalls and rapids prevent boats from traveling all the way down the river to the ocean.

The Niger River rises in the West African nations of Sierra Leone and Guinea. It first flows north toward the Sahara, where it forms a large inland swamp. Then it turns southeast and plunges from the plateau toward the sea. Along the Niger, farmers pump water to irrigate crops of rice and millet. Local residents pole long, pointed boats through the waters and use nets to catch fish. Large riverboats carry passengers and cargo along the deeper sections of the Niger.

The Zambezi River in Southern Africa is fed by sources in Angola and Zambia. As it de-

scends to the sea, the Zambezi rushes over Victoria Falls. The Zambezi forms the border between Zimbabwe and Zambia, where Lake Kariba and the huge Kariba Dam are found. The dam provides hydroelectric power to both nations.

Natural Resources

Africa's rivers are a source of precious metals. For more than 2,000 years, people in Africa have sifted through riverbeds to uncover gold and diamonds. They have also mined gold from pits deep below the surface. For centuries, West Africa served as a major source of gold for Europe. The desire to discover gold was one cause of European interest in Africa.

Mineral exports. Today, African nations sell many other valuable resources to the industrial world. D.R. Congo and Zambia have huge deposits of copper. South Africa, D.R. Congo, and Botswana are among the world's leading suppliers of diamonds and cobalt. Nigeria and Angola have built offshore oil platforms to

Mining Mineral Wealth Many African nations depend on the export of natural resources for income. Pictured here is a mining operation in Mauritania, a nation of West Africa. Mauritania earns three fourths of its national income from its export of iron ore.

Interdependence How do Mauritania's natural resources link it to other nations?



pump oil from underwater sources. Libya, Algeria, and Gabon also have oil deposits.

Some African countries lack the money to develop their mineral resources. As you will read in Chapter 5, they have allowed foreign companies to invest in mining and other ventures. As a result, much of the profits from these resources flow out of Africa.

Uneven distribution. Although Africa is rich in natural resources, those resources are unevenly distributed. Only a few African nations, for example, have oil to export. The rest must rely on expensive imported oil.

Some countries, like Uganda, have relatively few mineral resources but have rich soils and abundant water. The fertile soils of the Great Rift Valley allow Ugandan farmers to produce a variety of crops. Much of Africa, however, is not very fertile. In addition, uncertain rainfall often makes farming difficult.

SECTION 1 REVIEW

- 1. Locate:** (a) Atlas Mountains, (b) Great Rift Valley, (c) Nile River, (d) Congo River, (e) Niger River, (f) Zambezi River.
- 2. Identify:** (a) Aswan Dam, (b) Kariba Dam.
- 3. Define:** (a) escarpment, (b) cataract, (c) hydroelectric power.
- 4.** (a) Describe the relative location of Africa. (b) How has Africa's location both set it apart and linked it to the rest of the world?
- 5.** (a) How have the landforms of Africa encouraged movement of people and goods? (b) How have they discouraged movement?
- 6.** What resources do African nations export to the world?
- 7. Defending a Position** Some people believe the Aswan Dam is a major achievement. Others consider it a sad mistake. What evidence would you give to support each argument?
- 8. Writing Across Cultures** Look at physical maps of Africa and the United States. Make a list of all the African countries that have the same landforms as your state.

2

CLIMATE AND DIVERSITY

FIND OUT

- How do climates differ across Africa?
- What ways of life did Africans develop?
- How do Africa's languages reflect its cultural diversity?

Vocabulary tropics, leaching, drought, desertification

If you visit Africa, you can probably leave your winter coat home. Africa is the most tropical of all the continents. Temperatures in most parts of Africa are generally warm or hot.

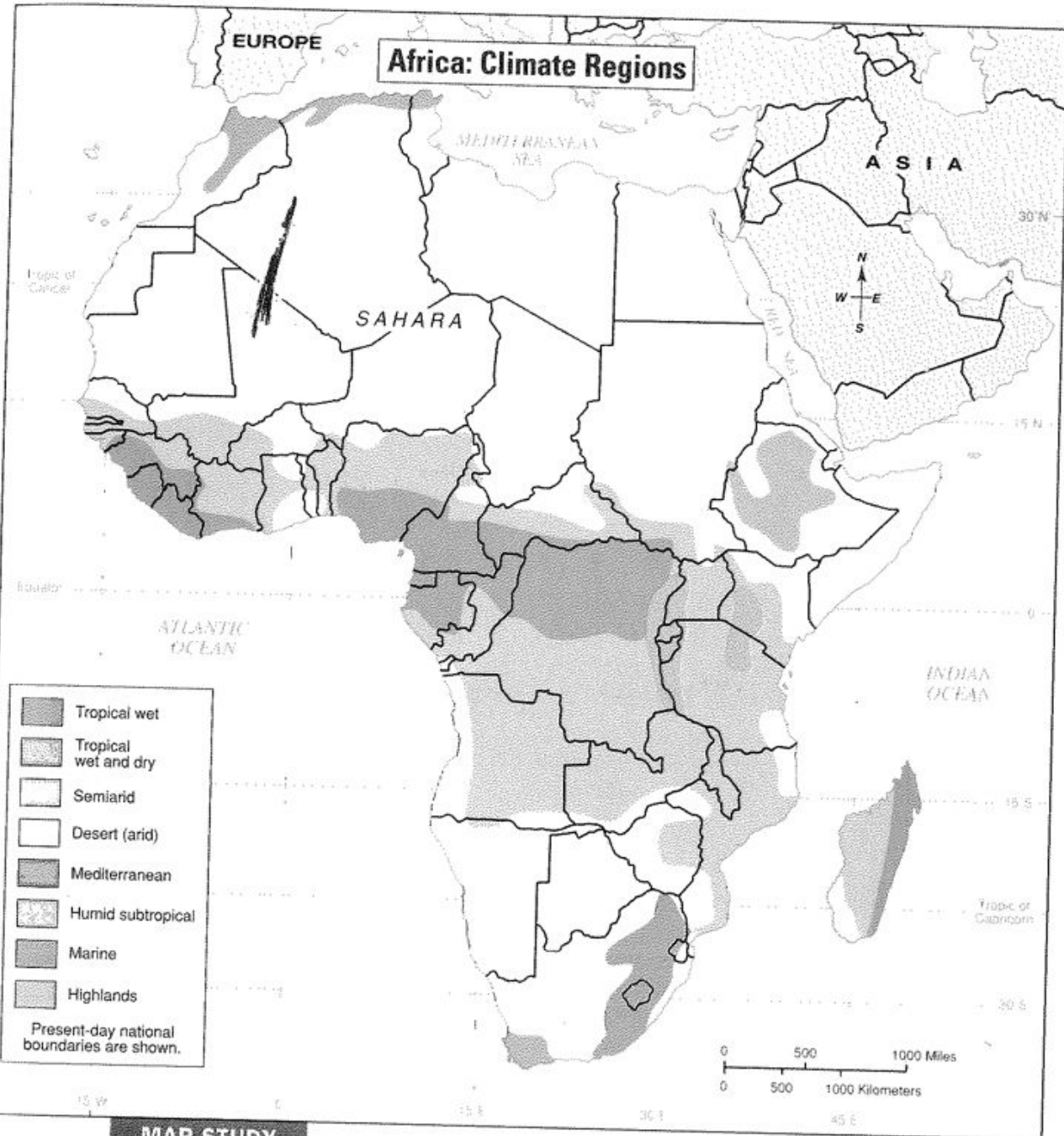
Rainfall, however, varies greatly from one part of Africa to another. To a large degree, it is rainfall—or lack of it—that determines climate on the continent. Indeed, the people of Botswana consider rainfall so important that they call their money *pula*, which means “rain.”

The Roles of Latitude and Elevation

The Equator runs nearly through the middle of Africa. As a result, 80 percent of the continent is in the tropics, the area between the Tropic of Cancer and the Tropic of Capricorn. Because of this tropical location, African climates are generally warm throughout the year.

The coolest regions of Africa are found in the highlands. Because temperature drops as elevation increases, temperatures in the highlands are considerably lower than in low-lying regions. For example, Accra, Ghana, on the West African coast, has hot, humid weather. Temperatures reach the 80s F. On the other hand, Nairobi, Kenya, lies at about the same latitude as Accra but is 5,300 feet (1,615 m)

Africa: Climate Regions



MAP STUDY

Africa is a vast continent with varied climates as this map shows. In most parts of Africa, however, the temperatures are warm all year round.

- 1. Place** Why is the climate of most of Africa warm throughout the year?
- 2. Region** (a) Which climate region extends across the largest part of Africa?
(b) Which climate region covers the smallest area of Africa?
- 3. Drawing Conclusions** Why does the amount of rainfall determine climate zones in Africa?

above sea level. Its pleasant daytime temperatures are in the 60s and 70s F. At night, Nairobi is quite chilly.

Rainfall

A major feature of African climates is a pattern of alternating wet and dry seasons. The seasons vary north and south of the Equator. When rains fall on areas south of the Equator, areas to the north experience a dry season. The pattern is reversed later in the year. In general, the farther north or south one gets from the Equator, the shorter the rainy period is and the longer the dry season is.

Rainfall is distributed very unevenly in Africa. Average annual rainfall varies from less than an inch (2.5 cm) in desert regions to more than 80 inches (203 cm) near the Equator. In addition, the rains may vary greatly from one year to the next. These variations in rainfall cause problems for farmers and herders, as you will read.

Four Major Climate Zones

Because of its size, almost every type of climate and vegetation can be found in Africa. For purposes of study, the continent can be divided into four major climate zones. In general, differences in the amount of rainfall distinguish these zones.

Because Africa sits astride the Equator, the climate zones of its northern and southern halves are mirror images of each other. Setting out from the Equator and moving north or south, a traveler would encounter similar bands of climate and vegetation. In turn, these are tropical wet, tropical wet and dry, desert, and moderate Mediterranean climates. (See the map on page 65.)

Tropical Wet Climate Region

Rain forests thrive in the wet tropical climate region. This climate zone occupies a narrow belt along the Equator, covering only 8 percent of Africa. It extends from Guinea on the west coast to the Great Rift Valley in the east.

The tropical rain forest is hot and humid all year round. Temperatures average around 80°F (27°C), and annual rainfall from 60 to 120 inches (152 to 304 cm) is common. The abundant rainfall and warm temperatures help to produce lush plant growth. Thousands of species of birds and animals make their home in the rain forest.

With all its plentiful plant life, you would think that soil of the rain forest would be deep and rich. In fact, the soil is poor. Constant heavy rains dissolve and wash away its nutrients. This process, known as *leaching*, leaves the soil unsuitable for farming.

The tropical climate of the rain forest poses many problems for settlement. Disease-carrying insects breed in standing pools of water left by heavy rains. Other insects, such as termites, attack wooden buildings and furniture. In addition, dampness causes even everyday items such as clothing to become moldy or rot. Today, builders can solve some of these problems by using concrete and steel in the rain forest, but these materials are costly.

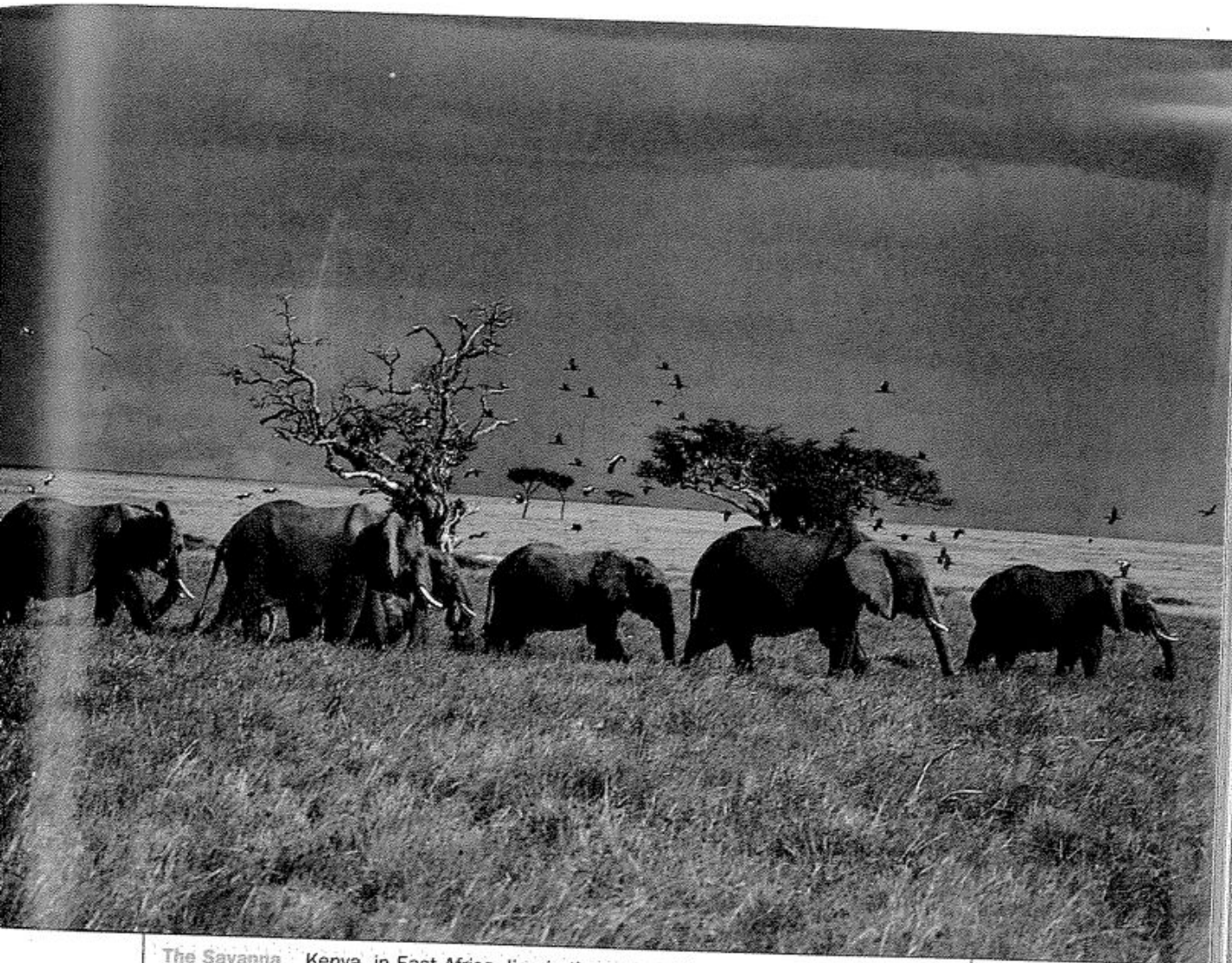
Tropical Wet and Dry Climate Region

The largest climate zone in Africa is the tropical climate with a wet and dry season. The savanna, a grassland, occupies this region, which covers almost half the continent. It is home to most Africans.

Like the tropical rain forest, the tropical savanna region is warm all year. In the summer, or rainy season, the climate is hot and wet. But in the winter, or dry season, it is warm, with little or no rainfall.

Rainfall in the savanna varies from 20 to 80 inches (51 to 203 cm) a year, depending on distance from the Equator. Close to the Equator, the wetter parts of the savanna support many trees and grasses. On the outer edges of the savanna, the semiarid climate is very dry with only a short rainy season. Here, only scattered grasses and small trees grow.

Unpredictable rainfall. Each year, millions of people living on the savanna anxiously



The Savanna Kenya, in East Africa, lies in the wet and dry tropical climate zone. The grasses and shrubs that grow in the savanna support many species of wildlife. Herds of elephants and flocks of birds like those in this photograph live there.

Environment Why is unpredictable rainfall a serious concern for all life in the savanna?

ask the same questions: When will the rains come? Will they bring enough moisture?

Rainfall on the savanna is unreliable and hard to predict. Rains may be heavy or light. The rainy season may come weeks early or weeks late. Some years, it may not come at all. Drought, or prolonged periods of little or no rainfall, is common.

Rainfall has great impact on the people's lives. Heavy downpours wash away the soil

and cause flooding. If the rains fail to arrive or last for only a short time, few grasses grow. Herders must slaughter their livestock or let them starve. Farmers watch crops die from lack of moisture.

Desertification. Population growth has created serious problems in the drier parts of the savanna. During periods of plentiful rainfall, people seeking land move into these semiarid areas. They chop down trees to clear

farmland and to use as fuel for cooking and heating. Herders graze their cattle on the shrubs and grasses.

Natural forces and human action put the land at risk. When droughts occur, crops wither. In addition, the grazing herds have destroyed the roots of the grasses, so the thin layer of topsoil turns to dust. The result is *desertification*, the turning of semidesert land into desert.

Desertification is especially widespread in the region known as the Sahel. It separates the savanna from the Sahara to the north. Because the Sahel receives so little rain, its growing population is causing serious destruction. Some nations in the Sahel are taking steps to control the problem by planting trees and limiting grazing.

Deserts

Deserts cover about 40 percent of Africa. They include the Sahara in the north and the

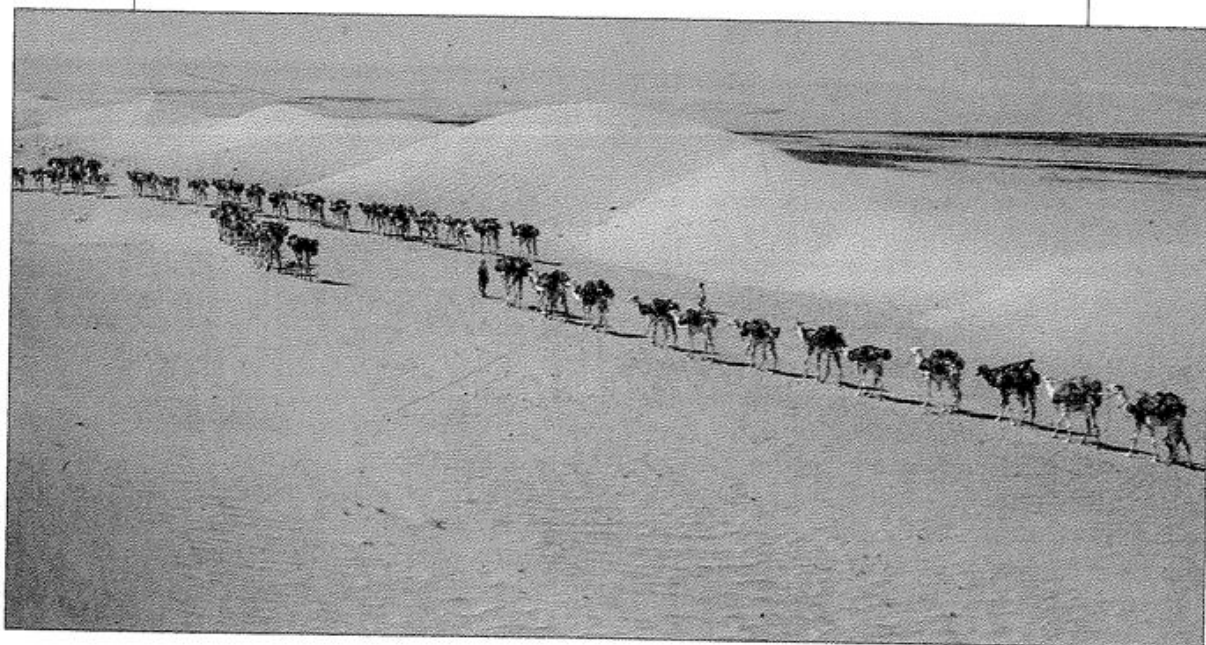
Kalahari and Namib deserts in the south. In fact, the word *Sabara* means "desert" in Arabic.

The Sahara. The vast Sahara is larger than the continental United States. It extends across northern Africa from the Atlantic to the Red Sea. The Sahara is a region of windswept rock, gravel, and shifting sand dunes. Parts of the Sahara are very harsh. Temperatures can reach as high as 130°F (54°C). Ten years can pass without rainfall.

A few areas have grasses that can support grazing animals. Rainfall in the Sahara averages less than 10 inches a year. After a short rainstorm, grasses will sprout. Streams fill, and people can plant crops.

From ancient times, the Sahara has been as much a highway as a barrier. For thousands of years, traders traveled back and forth across the Sahara. They carried goods and ideas between the peoples of North Africa and the peoples of the savanna. This back-and-forth movement played a role in the

The Sahara The largest desert in the world is the Sahara in northern Africa. For hundreds of years, caravans of camels such as the one below in Niger carried salt and other goods across the Sahara. Today, airplanes and truck convoys are replacing camels. **Environment** How does technology change the ways people adapt to their environment?



further development of Africa's diverse societies and cultures.

The Kalahari and Namib. The Kalahari, in Southern Africa, is not quite as dry as the Sahara. Grasses and wild melons grow in a few places, and animals such as antelopes graze. The Namib Desert, however, is one of the driest places on Earth. Small trees get water largely from mists that drift in from the nearby Atlantic Ocean.

Mediterranean Climate Zones

At the southern tip and along the northern coast of Africa, small areas enjoy a mild Mediterranean climate. The climate is similar to that of Los Angeles, California. Summers are hot and dry. Winters are cooler and moist.

The mild climate and fertile soils of these areas support many kinds of crops as well as herding. The pleasant conditions also attracted European settlers. French, Italian, and Spanish colonists carved out farms along the North African fringe. Dutch and British settlers claimed lands in Southern Africa.

Climate and Health

Many disease-carrying insects breed in tropical climates. Throughout tropical Africa, the effect of this on the people's health is enormous. For example, malaria spread by mosquitoes kills up to 1 million children each year. Those who survive the disease suffer from its weakening effects all their lives.

Sleeping sickness is widespread in the savanna. The disease is carried by the tsetse fly, which infects both people and their livestock. Because the disease kills cattle, many Africans have little meat in their diet. Without this source of protein, they are more likely to develop other diseases.

In savanna nations from Senegal to Kenya, other flies transmit river blindness. Before a cure was found recently, this disease caused many people to lose their sight. Millions of Africans suffer from bilharzia (biHL HAHR zee uh). This disease is transmitted by snails

that carry parasitic worms. People become infected when they wash or swim in streams where the snails live. As you will read in Chapter 6, scientists are working with some success to combat the diseases that affect large numbers of Africans.

Population Patterns

Today, the population of Africa is about 763 million and is growing rapidly. The African continent, however, is not densely populated.

As elsewhere around the world, climate, water resources, and soil influence where people live in Africa. Many areas have few people because the land and climate discourage human settlement. Among the most heavily populated areas are the southern part of West Africa, the nations of Morocco and Algeria, the Nile Valley, the region around Lake Victoria, and the eastern part of Southern Africa.

Adapting to the Land

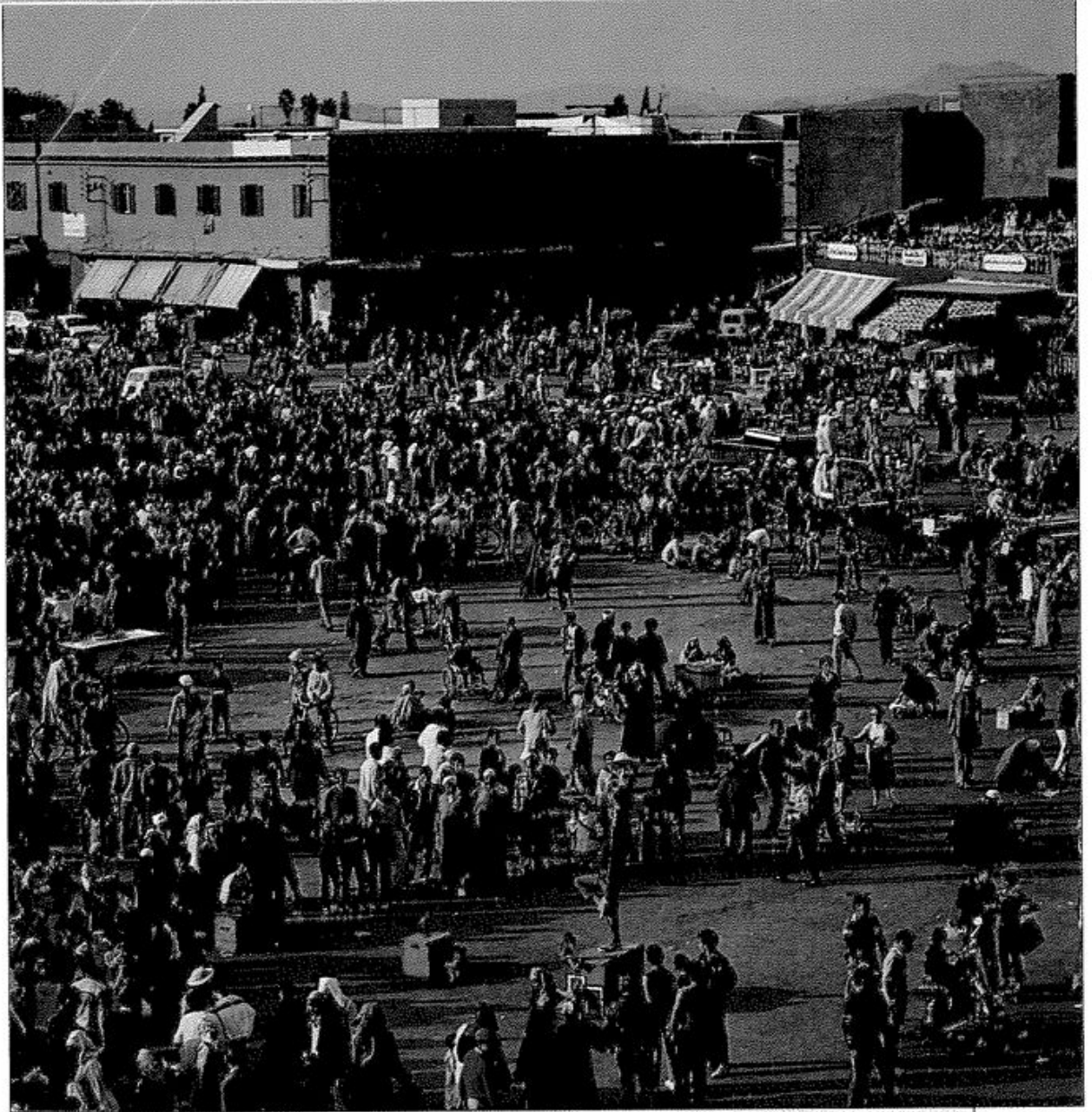
Africa is home to an immense variety of cultures. These cultures have different histories, religious beliefs, values, and traditions. The varied lands and climates of Africa have contributed to this diversity.

Thousands of years ago, people in Africa began migrating across the continent. Depending on where they settled, they developed one of five basic types of societies: farming, herding, fishing, hunting and food gathering, and urban. Most of these ways of life continue in Africa today.

Today, the majority of Africans live in the savanna. Most of them are farmers. Those parts of the savanna that are free from the tsetse fly also support cattle-herding societies.

As in ancient times, people living near lakes and rivers or along the coasts support themselves by fishing. Very few hunting and food-gathering societies remain in modern Africa.

Cities have long flourished along the Mediterranean coast of North Africa, in the savanna of West Africa, and on the coast of East



A Market in Marrakesh The mild Mediterranean climate in northern Africa encouraged the growth of cities. For centuries, Marrakesh was the capital of a vast North African empire. Today, people of different cultures still flock to this city in Morocco to trade in its busy marketplace. **Culture** How does trade promote cultural diffusion?

Africa. Today, African cities throughout the continent are growing rapidly.

Languages

Africa's cultural diversity is reflected in its many languages. Africans speak more than 1,000 different languages. Often, groups living within a few miles of one another speak

different languages. Some areas also have common languages that are used for trading and business purposes.

Scholars divide the languages of Africa into several language families. All languages within the same family share a common root. For example, people living in a wide belt extending from West Africa across Central and

Southern Africa speak languages of the Niger-Congo family. But even though they are part of the same family, those languages may be as different from one another as English is from Swedish.

By studying language families, we can learn about the early movement of African peoples. For thousands of years, small groups of people migrated across the continent. When they came into prolonged contact with each other, their languages slowly changed. They added new words or pronounced words differently.

In East Africa, for example, Arabs from the Middle East traded with local African people. Over time, some Arabic words blended into the basic Bantu languages of East Africa. The result was a new language called Swahili (swah HEE lee). Swahili is still spoken by many people in East Africa today. In the last 150 years, European languages such as Portuguese, French, and English joined the list of languages spoken in Africa.

SECTION 2 REVIEW

- 1. Locate:** (a) Tropic of Cancer, (b) Tropic of Capricorn, (c) Sahara, (d) Kalahari Desert.
- 2. Identify:** (a) Sahel, (b) sleeping sickness, (c) Swahili.
- 3. Define:** (a) tropics, (b) leaching, (c) drought, (d) desertification.
- 4.** (a) What are four major climate zones of Africa? (b) Why is rainfall a key to Africa's climate?
- 5.** (a) What were the five basic kinds of societies in Africa? (b) How has the land affected the location of these societies?
- 6. Analyzing Information** How might the many languages of Africa be a problem in building unified nations?
- 7. Writing Across Cultures** Choose one of Africa's four climate zones. Write a paragraph comparing it to the climate zone where you live.

3

EARLY CIVILIZATIONS OF AFRICA

FIND OUT

What kinds of evidence help us learn about the past?

How did climate changes affect ancient Africa?

What were some achievements of early African civilizations?

Vocabulary pharaoh, hieroglyphics

Egypt's ruler Hatshepsut wanted to be remembered. She had a record of her deeds carved on the walls of a great temple. One of Hatshepsut's greatest triumphs was a highly successful trade expedition to Punt,* a land to the south of Egypt. According to the temple carvings,

“A command was heard from the great . . . god [Amon-Re], that the ways to Punt should be searched out. . . . [I Hatshepsut commanded] to send to [Punt] . . . according to the command of my father, Amon. ”

Thanks to the carvings on Hatshepsut's temple, we know about this early contact between the peoples of Africa. Often, however, early people did not leave such clear records. Scholars must piece together bits of evidence to learn about the past.

Tracking the Evidence

Olduvai Gorge is located on the edge of the Great Rift Valley in Tanzania. There, in the late 1950s, a team of scientists, headed by

* Scholars think that Punt was located at the southern end of the Red Sea in what is today Somalia.

Mary and Louis Leakey, uncovered exciting evidence. They found pieces of bone embedded in ancient rock. After careful study, they determined that the bone, which was almost 2 million years old, belonged to one of the ancestors of modern people. The discoveries at Olduvai have led some scientists to suggest that Africa was home to the first people.

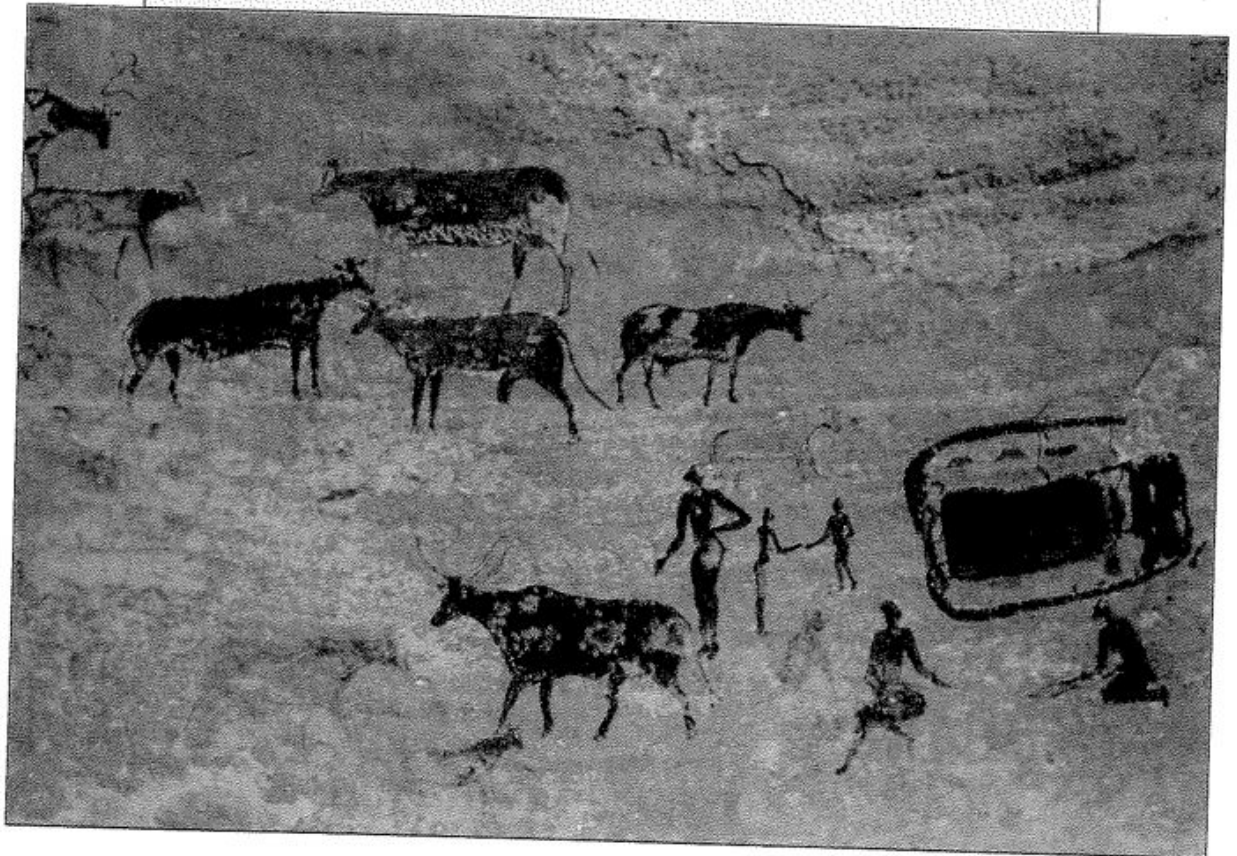
Archaeologists study objects left by early people. From pieces of bone, a few seeds, or charcoal from an ancient fire, they try to create a picture of the past. Scientists in many fields help in the task. If ancient grain is found buried in rock, geologists study the rock to learn when it was formed. Botanists analyze the type of plant and the climate it would have needed to grow.

Despite scientific advances, we still know little about the earliest people. Archaeologists continue to hunt for evidence linking the earliest people in Africa to later cultures that emerged there. Africa's climate often works against our learning more. Heat and humidity, for example, destroy wood and bone, which often provide scientists with valuable information.

Records on Stone

Some records of early people have survived, especially pictures on stone. From Southern Africa to the Sahara, archaeologists have studied paintings on rock cliffs and cave walls. The paintings show the tools, weapons,

African Rock Art Early peoples in several regions painted scenes on the rock walls of cliffs or in caves. These paintings on a rock cliff in the Algerian desert are among the largest and best-preserved examples of such art. **Fine Art** Based on the painting, what conclusion can you draw about how early people lived in northern Africa?



and hunting and food-gathering methods of early African peoples.

Rock art. The rock art of the Sahara lets us look at the lives of people who once lived there. In one scene, a woman uses a digging stick to pry edible roots from the ground. In another, figures move in graceful patterns, perhaps as part of a religious ceremony. In yet another, a hunter stalks a giraffe.

These rock paintings reveal that herds of animals once roamed the Sahara. Based on this evidence, scientists now think that the Sahara was once much wetter than it is today. Thousands of years ago, the region had lakes, rivers, and green grasses. Arrowheads, fish hooks, and cattle bones show that people hunted, fished, and herded cattle there.

A changing environment. About 4,000 years ago, the climate of the Sahara was changing. Less rain fell. Lakes and rivers dried up. Without water, grasses no longer grew. Animal herds migrated to other parts of Africa to find food. The people who hunted those animals also moved. Some people probably migrated to the Nile Valley.

Nile Valley Civilization

Even before the Sahara dried up, people in various parts of the world had learned to raise crops. As you have read, the agricultural revolution had far-reaching effects. (See page 28.) Some people gave up the nomadic life of hunting and food gathering. They settled into farming communities. These communities became the basis for advanced civilizations.

The earliest civilization in Africa developed in the Nile Valley of Egypt about 7,000 years ago. Fertile soils and plentiful wildlife allowed people to farm and hunt. As the people perfected their farming skills, they produced more food, allowing the population to grow.

By about 3,000 B.C., powerful rulers had emerged and united the villages along the Nile. The rulers of ancient Egypt were called pharaohs (FAIR ohz). In time, pharaohs expanded their power and built a large empire. Through trade and conquest, Egyptians exchanged knowledge and ideas with distant cultures.



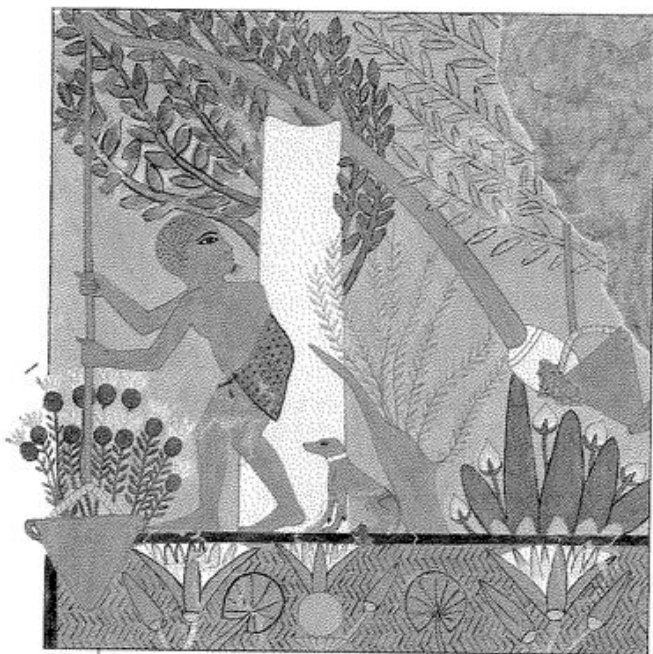
A Pharaoh's Coffin Richly decorated coffins showed the great wealth and power of Egypt's rulers. This coffin of the young pharaoh Tutankhamen, who ruled in the 1300s B.C., was found in 1922. Furniture, weapons, clothing, and a chariot, all trimmed with gold and jewels, filled the burial tomb. **Fine Art** What can you learn about Egypt's civilization from this work?

Religion and Government

The Egyptians were polytheistic. They believed that different gods controlled the forces of nature. The chief god was Amon-Re (AH muhn RAY), the sun god. Other important gods and goddesses included Osiris (oh sī rihs), god of the underworld and of the Nile, and his wife, Isis (ī sihs).

A belief in life after death was central to Egyptian religion. Pharaohs and rich nobles prepared carefully for the journey through the underworld to the "Happy Field of Food."

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Ancient Egyptian Art Paintings on the walls of Egyptian tombs provide evidence about civilization in the Nile Valley. In this painting from about 1250 B.C., a worker uses a shaduf, or water hoist, to draw water from the Nile. Farmers still use this method of irrigation. **Technology** Why are some ancient methods of farming still in use today?

They built huge pyramids, or tombs, and filled them with food, clothing, and jewels that they would need in the afterlife.

To the Egyptians, the pharaoh was a god, descended from Amon-Re. The pharaoh had total power over the lives of the people. Priests and nobles helped the pharaoh run the government. Priests conducted the ceremonies needed to please the gods. Other officials collected taxes in the form of grain and other goods to pay the costs of government.

Up Close

The Gift of the Nile

As far as the eye can see, flood waters cover the land. Here and there, villages stand on slight rises above the swirling river. In one such village—let us call it Perhaa—live

a man called Heti and his wife, Senen, with their children. The family is an imaginary one. But from paintings on temple walls and other records of ancient Egypt, we know how ancient Egyptians lived.

Season of the Flood. An ancient historian called Egypt the “gift of the Nile.” Each year, the river flooded and spread rich Nile mud over nearby farmlands. Farmers like Heti and Senen welcomed the Season of the Flood with hymns like this one:

“Praise to thee, O Nile, that flows out of the Earth and comes to nourish the dwellers of Egypt. . . .

If the Nile is sluggish, the nostrils are stopped up, and the people are brought low;

The offerings of the gods are reduced, and millions die.

When the Nile rises, the Earth is joyous and everyone is glad; every jaw laughs and every tooth is uncovered. ”

During the 100 days their fields are under water, Heti and other men from Perhaa must work for the pharaoh. They wrestle huge chunks of stone from the cliffs that line the river and load them onto wooden rafts. In cities far from Perhaa, other workers will use the stone to build a temple to Amon-Re. The pharaoh’s overseer pays Heti and the others with grain from the royal storehouses. The food is welcome because the villagers have little left from last year’s harvest. (See Connections With Literature, page 804, “The Story of the Flood.”)

Season of Going Out. When the flood waters retreat, the Season of Going Out begins. Heti and Senen guide a pair of cows that pull a wooden plow through the muddy soil. Along with other villagers, they plant fields of wheat and barley. Near their mud-brick home, they tend a small garden, weeding rows of onions, beans, carrots, radishes, turnips, cucumbers, melons, and gourds.

When desert sun dries the fields, the people of Perhaa use a shaduf, a simple water

hoist, to spread water from ditches and ponds onto their crops. As the crops ripen, the people perform the ceremonies that the priest of Osiris orders. New life will rise from the fields only if the god of the underworld gives his permission.

Season of the Harvest. Four months after planting, the crops are ready for harvesting. At sunrise, Heti and his sons go to the fields to cut the grain. Senen and her daughters gather the grain into baskets. Later, they put the harvest into large storage jars. They dry the vegetables from their garden and brew beer from barley or grapes.

The people of Perhaa keep only about half the harvest. The rest goes to the pharaoh's tax collectors. Before the grain is cut, the tax collector arrives to measure the village grain fields. Based on those measurements, he decides how much tax the village must pay. The grain feeds the pharaoh's court and officials. In years when the harvest is bad, however, the pharaoh might send grain to areas hit by famine. ■

Achievements of Egyptian Civilization

The Egyptians left remarkable monuments to their civilization. Only a wealthy and well-organized society could have built the huge temples and pyramid tombs that still stand along the Nile. The Egyptians also developed a form of writing, called *hieroglyphics*, that used pictures and symbols. Hieroglyphics and paintings on temple walls tell us about the knowledge, beliefs, and everyday lives of early Egyptians.

^Egyptian priests used their knowledge of the stars and planets to produce a calendar with a 365-day year.^Officials used their mathematical skills to survey the land each year after the Nile floods washed away boundary markers.^Egyptian doctors studied the human body.^They set fractured bones, treated spinal injuries, and successfully performed some types of surgery.

Egyptian civilization survived for thousands of years. Gradually, Egyptians passed on

much of their knowledge to other peoples of Africa and to peoples of the Mediterranean region.

The Kingdom of Kush

Trade flowed along the Nile between Egypt and neighboring peoples in Nubia and Kush to the south. At times during Egypt's long history, powerful pharaohs sent armies to conquer these lands. Traders and conquering armies spread Egyptian culture southward.

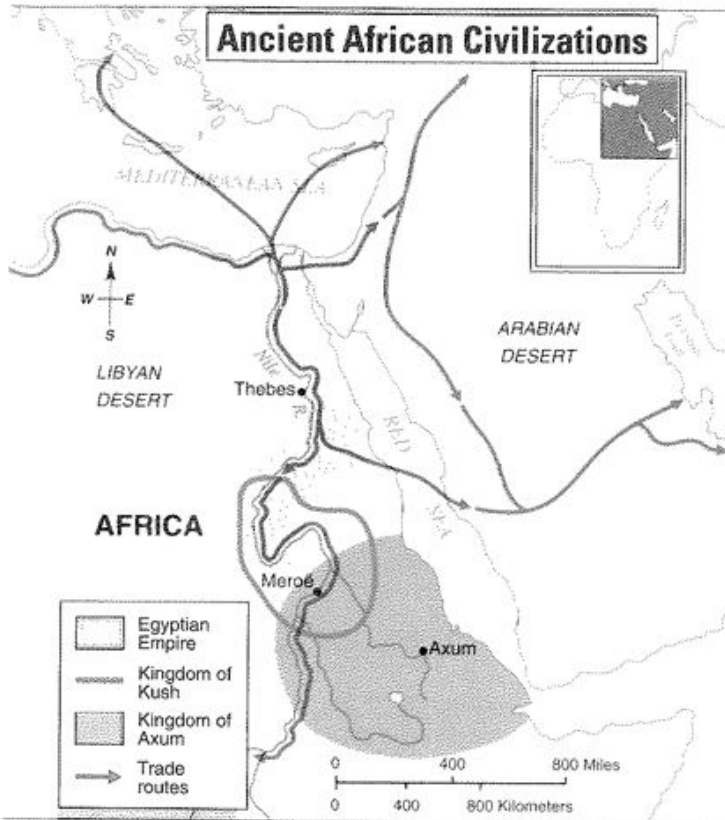
By 750 B.C., Egyptian power had weakened. King Kastha of Kush led his forces north and conquered the Nile Valley. Kushite rule over Egypt was short-lived. It ended when the Assyrians, armed with iron weapons, invaded Egypt from the Middle East, forcing the Kushites to retreat.

Despite the defeat by the Assyrians, Kush continued to flourish. The rulers of Kush built a new capital at Meroë (MEHR uh wee), on the banks of the Nile. At first, Egyptian influences remained strong. The people worshipped the sun god Amon-Re. Kings and priests built temples and pyramids like those in Egypt. However, over time, the gods of Meroë replaced Egyptian gods. The Kushites adapted Egyptian hieroglyphics and in time developed their own alphabet.

Near Meroë were deposits of iron ore. After their contact with the Assyrians, the Kushites learned to make iron tools and weapons. Using wood from nearby forests, ironworkers heated their ovens and melted the iron ore. Despite their contact with Kushites, the Egyptians did not adopt this technology but continued to use bronze. Today, mounds of waste material from the Kushite iron industry can still be seen in the ruins of Meroë.

Kush also profited from trade. Kushite merchants exchanged goods with Egypt and the Mediterranean world. From ports on the Red Sea, they shipped cargoes to Arabia, East Africa, and India. Traders pushed southward and westward, perhaps as far as Lake Chad.

By A.D. 200, invasions and internal rivalries had weakened Kush. After 1,000 years, the once powerful kingdom of Kush collapsed.



MAP STUDY

Several ancient civilizations developed in Africa, including Egypt, Kush, and Axum.

- Place** Which early African civilizations bordered the Red Sea?
- Location** Describe the relative location of the kingdom of Kush.
- Applying Information** How did trade routes help Egypt to become a powerful empire?

The Kingdom of Axum

Even before the last king of Kush died, another African kingdom was emerging farther to the south. The kingdom of Axum developed on the high plateaus of what is today Ethiopia. Like Kush, Axum was an important center of trade. Its merchants sent spices, gems, and ivory north into Egypt, across the Red Sea to Arabia, and across the Indian Ocean to South Asia.

About A.D. 350, King Ezana of Axum conquered Kush. He boasted of his success:

“I burnt their towns, both those built of brick and those built of reeds, and my army . . . destroyed the statues in their temples, their granaries, and cotton trees and cast them into the Nile.”

Earlier, King Ezana had converted to Christianity. As you will read, Christianity began in the Middle East and spread across the Mediterranean world. (See pages 565–566.) Early Christians carried their beliefs across North Africa and up the Nile into Axum.

Christian beliefs took firm root in Axum. Later, the religion of Islam spread across North Africa. As a result, Christian communities in Axum were cut off from the rest of the Christian world. Yet the Ethiopian Christian Church survived. Today, it is among the oldest forms of Christianity. Ethiopians have their own sacred written language, called Ge'ez (gee EHZ), as well as strong traditions of religious art.

SECTION 3 REVIEW

- Locate:** (a) Egypt, (b) Kush, (c) Meroë, (d) Red Sea, (e) Axum.
- Identify:** (a) Olduvai Gorge, (b) Kasta, (c) Ezana.
- Define:** (a) pharaoh, (b) hieroglyphics.
- (a) How do different scientists help us learn about the ancient past? (b) What do ancient rock paintings reveal about the Sahara?
- Describe three achievements of Egyptian civilization.
- How was the culture of Kush affected by trade and warfare?
- Analyzing Ideas** According to an archaeologist, “In this field, a person kicks over a stone in Africa, and we have to rewrite our textbooks.” What does the archaeologist mean?
- Writing Across Cultures** Write a paragraph comparing the importance of the Nile to ancient Egyptian civilization with the importance of rivers in the United States today.

CHAPTER 3 REVIEW

Understanding Vocabulary

Match each term at left with the correct definition at right.

- | | |
|------------------------|---|
| 1. escarpment | a. steep cliffs |
| 2. cataract | b. form of writing that used pictures and symbols |
| 3. hydroelectric power | c. energy produced by moving water |
| 4. leaching | d. large waterfall |
| 5. hieroglyphics | e. dissolving nutrients and washing them away from the soil |

Reviewing the Main Ideas

- (a) Describe Africa's relative location in the world. (b) What bodies of water surround the continent?
- (a) What are Africa's most important rivers? (b) What contribution does each make to the lives of the people?
- Describe four factors that affect the climate of Africa.
- How have natural forces and human actions increased the spread of desert land in Africa?
- How have the climates of Africa affected population patterns?
- How did changes in the climate of the Sahara about 4,000 years ago affect the people living there?
- (a) Why did the kingdom of Kush flourish? (b) What were the results of interaction between the kingdom of Axum and other civilizations?

Reviewing Chapter Themes

- The lands and climates of Africa are varied. Choose two regions of Africa and explain how the climate and landforms of each have influenced how people live.
- The oceans surrounding Africa and the Sahara have been both barriers and highways. Describe two examples of how people have used them as highways.
- Archaeologists and other scientists have concluded that Africa was home to the first peo-

ple. What evidence has led them to that conclusion?

- Civilizations differ but they share certain features. See pages 28–30. Describe three features of ancient Egypt that indicate that it was a highly developed civilization.

Thinking Critically

- Making Global Connections** Imagine you are visiting Africa. (a) Which features of its geography will remind you of the United States? (b) Which will not? Explain.
- Understanding Causes and Effects** How did the landforms of Africa and its climates affect the early pattern of interaction between the peoples of Africa and those of Europe and Asia?
- Forecasting** How might the development of a more extensive transportation network throughout Africa influence patterns of settlement and economic development?

Applying Your Skills

- Using Your Vocabulary** Use the Glossary on pages 794–803 to review the meaning of the following terms: *elevation*, *plateau*, *climate*, *culture*. Use each term in a separate sentence about African geography.
- Analyzing a Quotation** Reread the quotation by King Ezana of Axum on page 76. What does it reveal about life in the kingdom of Kush?