

Geography and World History

Geography is the study of Earth's physical features and of human activity as it affects these features. The word *geography* comes from the Greek language and means "to describe Earth's surface." The study of geography has two major branches. Physical geography focuses on the processes and patterns of physical features, such as air, water, or landforms. The other major branch of geography is human geography. Human geographers study interactions between people and environments in order to explain the nature of these interactions, why they happen, and how they affect the population. This chapter will discuss how human geographers explore relationships between the environment and the development of societies.

Environment and Society

For the majority of our existence, human beings have been at the mercy of the environment. Before the development of agriculture, humans survived as hunter-gatherers, living in small nomadic tribes and traveling with the food supply. As technology was still in its infancy, natural barriers such as mountains and oceans prevented people from moving far beyond their immediate environments. This changed approximately 10,000 years ago with what is called the **Neolithic Revolution** that took place during the Neolithic, or "new stone," Age. During this change, hunter-gatherers developed systematic agriculture. Historians regard this revolution as the single most important development in human history.

As people started growing their food, they stopped moving and settled near their crops. Farming provided a more stable food supply, thus allowing for a larger population. The first agricultural communities developed in what is today the Middle East with the cities of **Çatalhöyük** in modern-day Turkey and Jericho, which still exists today as an Israeli-controlled town. This region is called the Fertile Crescent because its abundant water sources make it especially well-suited for growing crops. There is also pasture land for grazing animals such as sheep and cattle.

The first civilizations developed in river valleys where people could carry on large-scale farming. As populations grew, so did cities and the need for more crops. These river valley civilizations, such as those developed by the Sumerians, Egyptians, and Indus peoples, developed techniques for irrigation and canal building, diverting the flow of rivers to feed their crops. As the power and influence of these early civilizations grew, they also built vast road networks and cleared entire forests for building materials and additional land for use in agriculture.

Rulers found themselves having to organize and feed growing numbers of farmers and workers. Over time, the idea of states and nations emerged. With more complex social structures came economic and technological innovation. Agricultural techniques were refined so that more crops could be produced from less land. Surplus crops could be sold to generate wealth.

With increased prosperity came war and conflict, and soon societies found themselves in need of more natural resources. As societies fought over territory and resources, they also changed the environment to better suit their needs. Rivers were dammed, tunnels were dug, and forests were cleared. Some civilizations, such as the Romans, built vast aqueducts to transport water to cities, allowing populations to settle away from rivers. Later, natural springs were tapped, and plumbing brought water directly into people's homes. In every step technology led the way, as people shaped the environment to grow and prosper.

These changes were not without negative consequences, which occurred over a long period of time. Overfarming led to crop failure, diverting rivers turned once lush environments into deserts, and deforestation resulted in erosion and soil loss. Many animal species were reduced in number or driven completely into extinction. As human populations grew and industry developed, pollution became a serious concern. In modern times, reformers began to call for conservation and environmental protection, but the damage to the environment continued, and it continues today.

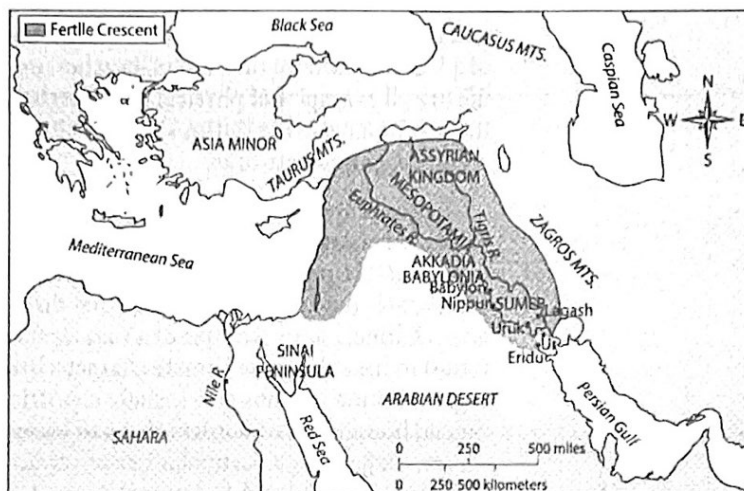
Today geographers study the relationship between people and the environment to understand how geography has influenced historical development, and also the impact human societies have had on the planet. Some examples include the building of dams and canals, polluting the air and water, building highways and railroads, and even planting grass or gardens. Even the smallest changes to the environment can affect animals and the ecosystem. Positive change might include planting trees and building wild habitats, while negative change might include building landfills.

One of the most important ways in which people impact the environment is through population growth. Before the 20th century, world population was well below one billion. Advances in farming, medicine, and refrigeration led to a population boom that tripled the population by 1960, and then it doubled again just 50 years later. Even today this population boom continues, leading many researchers and scientists to grow increasingly concerned about the human impact on Earth. Another area of concern is that the greatest population increase is happening in some of the poorest countries. As these countries often lack the tools to limit pollution, negative change is likely to increase as time goes on. Understanding the impact of the environment on people and people on the environment can help societies create better policies and avoid ecological disasters.

EXERCISE 1

Environment and Society

Directions: Study the map and then answer the questions that follow.



Early Civilizations of the Fertile Crescent

- The Fertile Crescent extends from the eastern coast of the Mediterranean Sea to the
 - Red Sea.
 - Black Sea.
 - Caspian Sea.
 - Persian Gulf.
- Based on the map, what natural features were important to the development of civilizations in the Fertile Crescent?
 - Mountains
 - Deserts
 - Rivers
 - Forests

Write your answer in the blank.

- According to the map, Mesopotamia was an area of land between the Tigris and the _____ Rivers.
- What natural features MOST LIKELY limited the expansion of early Fertile Crescent civilizations?
 - Rivers and valleys
 - Mountains and deserts
 - Roads and canals
 - Irrigation dikes and dams

Answers are on page 849.

Geographic Concepts and Tools

One of the most important innovations in how people related to their environment was in how they classified the world. As humans began to settle beyond their immediate surroundings, they began to divide the world into various kinds of environments. The most basic of these are places and regions. **Place** describes both the human and physical characteristics of a location. Mountains, rivers, beaches, oceans, and animal and plant life are all examples of physical characteristics. Human characteristics include human-made features such as cities, farms, and transportation and communication networks.

Regions are areas divided into units of geographic study, usually linked by shared characteristics. Regions are then further broken down into formal, functional, or perceptual regions. A **formal region** is an area defined by measurable data or characteristics that distinguish it from surrounding areas. Climate is an example of a measurable characteristic. When an area is found to have the same climate characteristics, geographers call it a climate region. Formal regions also include countries, states, and cities. They have official boundaries or borders that can be measured. A **functional region** is an area defined by a particular use or service, usually related to a business or economic activity. A functional region has a center that connects it to that use or service. One example of a functional region is a metropolitan transportation system. In the case of the New York metropolitan area, New York City represents the center of the region. **Perceptual regions** are areas defined by people's opinions, attitudes, or perceptions. These regions are not based on measurable data and therefore are more likely than other regions to change over time. Examples of perceptual regions are the Midwest, the North, or the Middle East.

Another important way humans study the world is in terms of its **cultural geography**, or the ways in which concepts such as language, religion, economics, and government vary or remain the same from one place to another. By looking at how different people in different regions relate to each other and to the world, geographers better understand how the environment shapes human behavior.

People who study geography use various tools to help them. These include maps, or drawings of all or part of the Earth's surface, and globes, a model of Earth. Because a globe is round like Earth, it represents land areas and bodies of water in their accurate sizes and shapes. A map, however, is flat and therefore cannot represent land and water accurately. The larger the area shown on a flat map, the greater the distortion because of the curve of Earth's actual surface. However, a map can show small areas of Earth with much more accuracy than can ever be represented on a globe.

Other tools used in geography include the lines drawn on maps and globes. The line running horizontally around the middle of a globe, for example, is the **equator**. The equator is an imaginary line halfway between the North and South Poles and divides Earth into the Northern and Southern Hemispheres. The **prime meridian** is an imaginary vertical line

running from the North Pole to the South Pole, dividing the globe into the Eastern and Western Hemispheres. The prime meridian runs north and south through Greenwich, England, a location near London.

In addition to the equator and prime meridian, there are other imaginary lines that geographers use to locate specific areas on maps and globes. Horizontal lines running parallel to the equator are **parallels of latitude**. They show distances measured in degrees north or south of the equator. Vertical lines running parallel to the prime meridian are **lines of longitude**. These lines measure distances in degrees east or west of the prime meridian.

Latitude and longitude form a grid that allows geographers to give an absolute location for every place on Earth. The equator is 0 degrees latitude. The prime meridian is 0 degrees longitude. New York City is located at about 40°N and 74°W. This means that New York City is 40 degrees north of the equator and 74 degrees west of the prime meridian.

EXERCISE 2

Geographic Concepts and Tools

Directions: Study the chart and then answer the questions that follow.

Types of Geographic Regions	Characteristics	Examples
Formal	Defined by measurable data or characteristics that distinguish it from surrounding areas Defined by official boundaries or borders that can be measured	Country State City Rocky Mountains
Functional	Defined by a particular process, use, or service Usually related to a business or economic activity Has a center around which processes are organized	Metropolitan transportation system Telecommunications service area National interstate highway system
Perceptual	Has areas defined by people's opinions, attitudes, or perceptions Not based on measurable data More likely than other regions to change over time	Midwest the North Middle East Southern California New England

- Which of the following is a formal region?
 - Washington, DC
 - A national railroad system
 - The South
 - An electric power grid

2. Which of the following is a perceptual region?
 - A. Brazil
 - B. A metropolitan transit system
 - C. The South
 - D. A mountain range

3. Airline system maps are a type of functional region because
 - A. air travel provides a particular use.
 - B. airports are located in or near cities.
 - C. airlines respond to customers' opinions.
 - D. airlines fly over national borders.

Answers are on page 849.

Human Migration

A major part of geography is the study of human migration. Migration is the movement of people from one place to another.

The most important question in the study of migration is why people move from one place to another. Most often people move in search of economic opportunities, either in terms of work or higher wages. An example of this is the arrival of European immigrants to the United States during the 19th century, when American businesses needed workers for factories during the Industrial Revolution. Sometimes people move to be close to family, as when members of the same family are separated or forced to relocate. An example of this is the movement of large numbers of Europeans at the end of World War II due to political changes resulting from the war. Sometimes people move to escape war or religious persecution. An example of this is the voyage of the Pilgrims from Great Britain to the American colonies in the 17th century.

Geographers also study how people, goods, and resources are transported from one place to another. This may include the shipment of products by land, sea, or air. In the early days, explorers used sailing routes to establish trading posts. Later, the study of transportation allowed governments and corporations to gain better insight into foreign markets. Today, studying this kind of movement allows researchers to determine how regions and economies develop over time. It also allows governments to find more effective means of transportation.

Cultural Diffusion

In addition to the movement of people and goods, geographers also study the movement of ideas, such as art, music, philosophy, and religion. One example is the influence of Greek culture on the ancient world, most notably on the Roman Empire, which borrowed heavily from the Greeks. Another example is the Western influence on Japan, which borrowed ideas from Europe during its rapid industrialization in the 19th and 20th centuries. One modern example includes the vast influence of American culture across the world through technologies such as Facebook and Twitter. Another modern example is the influence of British television on American pop culture. The simplest example of ideas moving from one place to another is through books. Broadly speaking, all of these are cases of **cultural diffusion**, or the spreading out of culture, cultural traits, or practices from a central point.

Language is an element of culture, and language has been affected by cultural diffusion as well. Chinese has strongly influenced Korean and Japanese, with Chinese words having been adopted by both Korea and Japan. The French language, which for centuries was spoken by the upper classes across Europe, dominates the arts even today. Originating in the high-tech industry of the United States, the word *google* has become a verb virtually everywhere in the world.

Language can also influence the way people think and, therefore, how cultures develop. For example, because the Russian language contains extra distinctions between light and dark colors, Russians are better able to identify shades of colors, such as blue, than those who speak other languages. Some cultures have no words for numbers but instead rely on terms such as *few* or *many* to keep track of quantities. Understanding how language influences cultures and the way people think helps researchers not only learn more about cultures but also to better understand how cultures communicate.

EXERCISE 3**Cultural Diffusion**

Directions: Use the chart and what you read in “Cultural Diffusion” to complete the questions that follow.

Examples of Cultural Diffusion

Silk and silk production	Originated in ancient China and became its major export Brought from China to ancient Rome on a network of trading routes known as the Silk Road Spread from ancient China to ancient India and eventually to Europe in the 1300s
Arabic numerals	Originated in India around the 500s Introduced to Europe through Arab mathematicians around the 1100s Used everywhere in the world today
Baseball	Introduced to Japan from the United States in the 1870s by American teachers Formed first professional Japanese leagues in 1936 Has become one of Japan’s most watched and played sports, with teams from elementary school to the professional level
Fast food restaurants	Spread throughout the world by American fast food companies Can be found in major cities of the world

1. The process of spreading out from a central point is known as
 - A. diffraction
 - B. influence
 - C. migration
 - D. diffusion
2. Which of the following correctly traces the expansion of the silk trade?
 - A. China to India to Rome to Europe
 - B. Rome to Europe to India to China
 - C. China to Rome to India to Europe
 - D. Europe to India to Rome to China

3. Each of the following is an example of cultural diffusion EXCEPT
- A. Many large cities all over the world have a "Chinatown."
 - B. Animals in the Galápagos Islands evolved separately from others.
 - C. Many languages, including French, Spanish, Italian, and even Russian, use the American word "jeans."
 - D. American jazz music started as a blend of African and Caribbean music.

Answers are on page 849.