



Hecataeus's Map of The World. Hecataeus was a Greek historian who lived from about 550 to 476 B.C.E. He described the countries and inhabitants of the known world, and included a map to illustrate where they lived. Hecataeus's map was based on Anaximander's earlier map of the earth, which he corrected and enlarged. Notice how much more accurate the map is in the area around Greece.

Whereas human geography emphasizes people and the way they interact with their natural environment, **physical geography** focuses on the natural environment itself. For example, a physical geographer might study mountains, glaciers, coastlines, climates, soils, plants, and animals. Of course, neither human nor physical geography could exist without the other because the two fields inevitably intersect and interact, making them inextricably bound to one another.

KEY GEOGRAPHICAL SKILLS

In order to understand the geographical perspective, students must learn key skills that help to organize and manipulate concepts. These skills include learning to use the vocabulary of geographers as well as those all-important tools – maps.

MAPS AND SPATIAL DATA

All geographers are very interested in the way places and things are arranged and organized on the surface of the earth. This common bond – the **spatial perspective** – means that they notice patterns of both natural and human environments, distributions of people, and locations of all kinds of objects. Words can describe space, and so some geographical data may be communicated through written and spoken language; however, the map is a powerful geographical tool that is almost as old as geography itself. Why describe something when you can draw a picture of it? Mapmaking (cartography) is a time-honored skill that has developed an incredible degree of precision and adaptability.

Absolute and Relative Location

Maps show us two types of location:

- **Absolute location** – Maps provide the exact location of a place on a mathematical grid of the earth divided by two sets of imaginary arcs: **meridians** and **parallels**. A

meridian is an arc drawn between the North and South Poles that measures **longitude**, a numbering system that calculates distance east and west of the **prime meridian**. The prime meridian is located at the observatory in Greenwich, England at 0°. The meridian at the opposite side of the globe is 180°, and all meridians placed in between are designated as either “east” or “west” of the prime meridian. A parallel is a circle drawn around the globe

SOME FAMOUS GEOGRAPHERS

Throughout the centuries, many curious people have studied and written about geography. Below is a list of some geographers that have shaped the way that millions of others have come to see the globe.

Eratosthenes, a Greek scholar who worked in the third century B.C.E., accurately calculated the circumference of the earth by measuring the sun's angles at the summer solstice (June 21) at two points along the Nile River – Alexandria and Syene. He used geometry to conclude the circumference based on the distance between the two cities and the angle of the sun at each place.

Ptolemy, a Greek scholar who lived five hundred years later than Eratosthenes, recalculated the circumference of the earth to be much smaller – by about 9,000 miles. He was wrong, but his mistake was taken as truth for hundreds of years. Despite his famous miscalculations, his *Guide to Geography* included many rough maps of landmasses and bodies of water, and he developed a global grid system that was a forerunner to our modern system of latitude and longitude.

Idrisi, an 11th century Arab geographer, worked for the king of Sicily to collect geographical information into a remarkably accurate representation of the world. Under Idrisi's direction, an academy of geographers gathered maps, consulted mariners and travelers, and went out on their own scientific expeditions. Although the final world map that they assembled is lost, much of the information and many partial and sectional maps have survived.

George Perkins Marsh, a 19th century American geographer, is best known for his classic work, *Man and Nature*, published in 1864. He focused on the impact of human actions on the natural environment, so his thinking is basic to the field of Human Geography. He emphasized human destruction of the environment, and used the conversion of ancient Mesopotamia from a “Fertile Crescent” to a vast barren desert. Marsh's message is a familiar one to us today: Conserve the earth, or live to pay the disastrous consequences.

Carl Sauer, an early 20th century geographer from California, shaped the field of Human Geography by arguing that cultural landscapes (products of interactions between humans and their environments) should be the main focus of geographic study. His methods of landscape analysis provided a lens for interpreting cultural landscapes as directly and indirectly altered over time as a result of human activity. His study is basic to environmental geography, a field that centers on the interaction of human and physical geography.