The “Five Themes of Geography” are location, human/environmental interactions, regions, place, and movement. No study into the field of human geography can truly begin without an understanding of these overlapping themes. Several definitions and concepts will be briefly introduced in the following paragraphs.

**Location**

Location refers to the *position* of something on the Earth’s surface. Maps are the best way to show location and demonstrate insights gained through spatial analysis. Just as no study into the field of language could be accomplished without words, or no study of mathematics could occur without numbers – no study of geography could occur without maps. All maps contain some distortion since you cannot perfectly represent a three-dimensional object (globe) on a two-dimensional surface (map). The scale of a map reveals how much the real world has been reduced to fit on the page or screen on which it appears. It is the ratio between an actual distance on the ground and the length given to that distance on the map, using the same measurement. This ratio is usually represented as a fraction (e.g., 1:10 or 1/10). A large-scale map actually shows less area than a small-scale map. Although this may fly in the face of conventional wisdom, you must remember that 1/10 is a larger fraction than 1/1000, for example. Try to remember it this way:

| Large scale = large detail | Small scale = small detail |

Absolute location refers to the location of something in relation to a neutral, agreed-upon frame of reference. Place-names are given to a portion of the Earth’s surface (“Paris”). Latitude and longitude (parallels and meridians) are mathematical measurements mainly useful in determining exact distances and direction (maps). Latitude measures N-S (0°-90°) and goes from east to west (picture the rungs of a ladder). The equator lies at 0° latitude. Longitude measures E-W (0°-180°) and goes from north to south. The prime meridian lies at 0° longitude, which runs through the Royal Observatory at Greenwich, England. The International Date Line lies at 180° longitude and cuts through the Pacific Ocean.

**A Quick Lesson in Seasons**

We have seasons because the Earth’s axis is tilted at an angle of 23½ degrees as it revolves around the sun. During the spring and summer, the Northern Hemisphere (north of the equator) is tilted toward the sun, so it receives more sunlight than the Southern Hemisphere. On about June 21 (the date varies from year to year), the vertical rays of the sun reach the northernmost limit. The sun is directly above the Tropic of Cancer (23½ degrees north latitude).

Early observers used the world solstice (“sun standing still”) to describe that day. It is the summer solstice in the Northern Hemisphere and the winter solstice in the Southern Hemisphere. Around December 21, the sun is directly above the Tropic of Capricorn (23½ degrees south latitude). The belt between the two tropics is called the low latitudes, or the tropics.

Twice a year on about March 21 and September 23, the vertical rays of the sun are directly over the equator. The circle of illumination from the sun passes directly through the North and South Poles. These two dates are called equinoxes (“equal night”), since the day and night are of equal length everywhere on the earth. The Arctic and Antarctic Circles lie at 66½ N and S respectively. These
are the parallels closest to the equator and farthest from the poles that have at least one day of complete sunlight and one day of complete darkness each year (this happens on the solstices). North of the Arctic Circle and south of the Antarctic Circle are the high latitudes, or **polar regions**. The North and South Poles have six months of daylight and six months of darkness each year. The two other belts located between low latitudes of the tropics and the high latitudes of the polar regions are the middle latitudes, or **temperate regions**.

**Relative location** is the location of a place relative to other places. It is a valuable way to indicate location for two reasons: 1) Finding an unfamiliar place by comparing its location with a familiar one (Paris, France is 213 miles southeast of London, England); 2) **Centrality** - understanding its importance (England was a hub of sea transportation in the 1600s during the Age of Reason – thanks in large part to its vast array of colonies).

**Site** refers to the physical characteristics of a place; climate, water sources, topography, soil, vegetation, latitude, and elevation. Although this definition is better suited under the theme of place, it can still be used to describe absolute location. A place’s **situation** refers to its relative location, or centrality. It is the external locational attributes of a place, or regional position with reference to other non-local places. For example, France was in a perfect situation to lead the way in the Enlightenment because of its close proximity to England (along with influential writers like Hobbes and Locke), as well as possessing one of the most powerful, and thereby, constricting monarchies in Europe (this encouraged intellectuals to speak out against oppression and injustice).

**Distribution** is the arrangement of something across Earth’s surface. One common notion throughout the study of human geography is that almost nothing is evenly distributed. There are three aspects of distribution you must consider – the first is density:

**Density** is the frequency with which something occurs in an area. The measure that is most often used is **arithmetic density**, or the total number of objects (e.g., people) in an area. For example, the arithmetic density of the United States today is about 77 people per square mile. **Physiologic density** measures the number of people per unit area of **agriculturally productive** (or arable) land. The physiologic density of the United States is around 415 people per square mile (of arable land). This number is usually more significant when dealing with a developing, or largely agricultural region or nation – since the peoples’ livelihood and survival is based more importantly on the availability of farmland. For instance, the arithmetic density of Egypt today is 185 people per mi². By contrast, its physiologic density is over 9,000 people per mi²! (97% of Egypt’s population lives on around 3% of the land – along the Nile River and Delta).

A second aspect of distribution, **concentration**, refers to the extent of a feature’s spread over an area. A **clustered** settlement would have homes that are relatively close to each other, whereas a **dispersed** settlement would have homes relatively far apart. The final attribute of density is its **pattern**, or the geometric arrangement of the objects.

**Human/Environmental Interactions**

The second theme under this discussion deals with the relationship between the environment and the population. Cultural ecology refers to the relations between cultures and environment. The cultural landscape includes all human-induced changes that involve the surface and the biosphere. Carl Sauer, one of the most influential geographers of the modern age defined the cultural landscape as, “… the forms superimposed on the physical landscape by the activities of man.”

**Environmental determinism** states that human behavior, individually and collectively, is strongly affected by, and even controlled or determined by the environment. The English developed a vast colonial empire in large part, due to the fact that they lacked an abundance of natural resources, and had a strong fleet due to the fact they were an island nation. **Possibilism**, an offshoot of environmental determinism, contends that the natural environment merely serves to limit the range of choices available to a culture. Regardless of how one views the environment, one thing definitely rings true - the influence of the natural environment declines with increasing technological sophistication. That is to say, as a society gains more technology the impact of the environment on them decreases, and their ability to change their environment increases. People and societies are constantly making positive and negative alterations in their environments –this is known as **environmental modification**.

**Sequent occupancy** is the notion that successive societies leave their cultural imprints on a place, each contributing to the cultural landscape. For example Swaziland, located in southern Africa, has gone through several changes over the centuries. The ancient San used valleys and hills for hunting and gathering. The Bantu used the valleys for crops.
and hills for cattle-herding. And when the British came along to colonize the area, they used the valleys for sugar plantations and hills for lumbering. Each civilization left its imprint on the physical landscape over time.

**Regions**

Regions are important for identifying and/or classifying areas of unique characteristics. They are excellent tools for organizing people geographically. In many cases, it is more important to view the world in terms of **regions**, as opposed to continents or countries. To identify and delimit regions, we must establish criteria for them – all regions have certain characteristics. These include **area** – that is, they all have some defined spatial extent; **location** – in that they lie somewhere on Earth’s surface; and **boundaries**, which are sometimes evident on the ground, often based on specifically chosen criteria. Other criteria can include cultural aspects (language, religion), economic (agriculture, industry), physical (climate, vegetation), or so on. There are three types of regions that geographers use: formal, functional, and perceptual.

A **formal** region (a.k.a. uniform, homogeneous) has a visible and measurable homogeneity. France could be seen as a formal region, since it has definite political borders, a stable government, and strong cultural homogeneity. A **functional** region is the product of interactions, and movement of various kinds, usually characterized by a core and hinterland (e.g. a city and its surrounding suburbs). The topic of **cultural perception** – the way that members of a culture view themselves as well as how they view other cultures – is a combination of tangible and intangible elements that help to define the personality of a region. We all have impressions and images of various regions and cultures, even though they may not always be accurate. **Perceptual regions** (a.k.a. vernacular, mental maps) are intellectual constructs designed to help us understand the nature and distribution of phenomena in human geography. These perceptions are based on our accumulated knowledge about such regions and cultures (e.g. Sunbelt in the U.S. Southeast). Perceptual regions can differ considerably, depending on the individual’s mental maps of various communities and cultures.

Regions can be seen in a vertical order or hierarchy (they can also be linked to scale and detail). For example, Paris is a city within France, which is in Western Europe, which is located on European continent, etc…

**Place**

All places on earth have distinguishing human and physical characteristics. The theme of place focuses on the associations among **phenomena within an area**. Physical processes are environmental processes, which explain the distribution of human activities. These include 1) climate - the long-term average weather conditions at particular locations; 2) vegetation - the plant life; 3) soil - the material that forms Earth’s surface in the thin interface between the air and the rocks. Erosion and the depletion of nutrients are two basic problems concerning the destruction of the soil; and 4) landforms - the physical features on Earth’s surface (geomorphology). There is very limited population near the poles and at high altitudes. In fact, only 6 percent of the total surface of the Earth is arable (meaning it can be farmed).

The theme of place can also deal very heavily with **culture** - people’s lifestyles, values, beliefs, and traits (“the man-made part of the environment”). Culture can be viewed in at least two ways: 1) what people care about (language, religion, ethnicity, etc.); and 2) what people take care of (daily necessities of survival (food, clothing, shelter) and leisure activities (artistic expressions, recreation)).

Culture is so complex that is useful to identify some of its interconnected parts. A **culture trait** is a single attribute of culture (a French aristocrat wearing a wig). Culture traits are not necessarily confined to a single culture. More than one culture may exhibit a particular culture trait, but each will consist of discrete combination of traits. Such a combination is referred to as a **culture complex**, which is a discrete combination of traits (prevailing dress codes, eating utensils). The third component is a **culture system**—culture complexes with traits in common that can be grouped together—such as ethnicity, language, religion, and other cultural elements. The final component, the **cultural region**—
the area within which a particular culture system prevails—is marked by all the attributes of a culture (dress, building styles, farms and fields, material manifestations, etc…). Cultural regions may be expressed on a map, but many geographers prefer to describe these as geographic regions since their definition is based on a combination of cultural properties plus locational and environmental circumstances. A culture realm is an assemblage of culture (or geographic) regions, the most highly generalized regionalization of culture and geography (e.g. sub-Saharan Africa, Western Europe).

Vladimir Koppen’s five main climate regions (expresses humans’ limited tolerance for extreme temperature and precipitation levels)

Key topics in cultural geography include cultural landscapes—the human imprint on the Earth's surface. These create a distinct and characteristic landscape that reveals much about the culture presently occupying the area, as well as those that came before (sequent occupation). In 1927 Carl Sauer, a renowned geographer, described the cultural landscape as, “the forms superimposed on the physical landscape by the activities of man.” These include the forms and artifacts placed on the physical landscape by humans (includes surface and biosphere), and the progressive imprinting of humans that cause the physical landscape to be modified into the cultural landscape (this forms an interacting unity between the two - associated with the human/environmental interactions theme). A second key topic focuses on cultural hearths—the sources of civilizations from which radiate ideas, innovations, and ideologies. Cultural geographers identify both ancient and modern cultural hearths. Even before human communities began to depend on cultivated crops or domesticated animals, culture hearths developed through technological discoveries or tools that made subsistence easier or more efficient (irrigation, fishing, storage,...). When the innovation of agriculture was added to the culture complexes that already existed (e.g. Mesopotamia in the Fertile Crescent – around modern-day Iraq), it diffused to other areas where it was not yet practiced.
The location and nature of the cultural innovations of recent centuries are very different. With the onset of the Industrial Revolution, the world was transformed by the spread of innovations from new hearths, new sources of invention and diffusion. These modern cultural hearths are located in Europe, North America, and East Asia. And one of the great – and not entirely answered – geographic questions is why there, as opposed to somewhere else.

**Movement**

The theme of movement refers to the mobility of people, goods, and ideas across the surface of the planet. Movement focuses on the **interconnections between areas**. As you read previously, culture hearths are source areas of the diffusion of many things – agriculture, technology, culture, etc.

**Cultural diffusion** – the process by which innovations and ideas spread to other areas – involves several types of diffusion. **Expansion diffusion** may take the form of **contagious diffusion**, where some item of culture is spread through a local population by contact from person to person. In this instance, nearly all adjacent individuals are affected (e.g. spread of Islam, or disease). In the case of **hierarchical diffusion**, another form of expansion diffusion, an idea or innovation spreads by trickling down from larger to smaller adoption units. Innovations often leapfrog over wide areas, with geographic distance a less important influence (e.g. spread of AIDS, use of fax machines – were urban based). A third type of expansion diffusion is **stimulus diffusion**, the spread of an underlying principle. It is a process where an idea or innovation is not readily adopted by a population but results in local experimentation and eventual changes in the way of doing things. The American Revolution, for example, did not immediately spread to European societies, but it did stimulate the spread of the notion of democracy.

The different forms of expansion diffusion take place through populations that are stable (the core remains strong as the innovation, idea, or malady diffuses). **Relocation diffusion** – the spreading of innovations by a migrating population – involves the actual movement of individuals who have already adopted the idea or innovation, and who carry it to a new, perhaps distant locale, where they disseminate it. The spread of European emigrants around the world during the period of European colonization is a classic example.

**Migrant diffusion** is when an innovation originates somewhere and enjoys strong-but brief-adoption, loses strength at origin by the time it reaches another area (no stable core area, e.g. mild pandemics).

**Acculturation** is when a culture is substantially changed through interaction with another culture (e.g. US gov’t forcing Native Americans to move and become farmers). **Transculturation** is a near equal exchange between culture complexes, and is quite rare.

A prime example of relocation diffusion deals with American colonists, who traveled mainly from England. The thirteen original British colonies in North America differed greatly from the colonies of the Portuguese, Spanish, or French in that the British colonists were allowed some degree of self-representation. England was a limited constitutional monarchy whose parliament checked the power of the king, whereas the other European governments were absolute monarchies, in which the kings or queens maintained total control. One of the key reasons the American colonists rebelled against England was because they viewed themselves as a separate culture, a new nation that had the right of self-determination.

There are many forces that work against diffusion. **Culture barriers** are prevailing attitudes or taboos that prevent attributes of foreign cultures from being adopted. Many cultures feel threatened when confronted by foreign influences (just ask Osama bin Laden about America’s recent globalization efforts – if you can find him). Another force that works against diffusion is **time-distance decay**, which basically states that the longer and farther something (or someone) has to go, the less likely it will get there. Europe was not immediately affected by the American Revolution, in part due to the vast Atlantic Ocean that separated the continents. However, much like the world’s recent events with respect to terrorism – no ocean is ever too big.