

## Unit I – Geography: Its Nature and Perspectives

### Chapter 1 and 2

#### Introduction:

- In chapter one you will be introduced to the geographer's vocabulary: terms and concepts
- Many of these terms and concepts are the same as those used by **cognate** (disciplines that are in some way affiliated with a branch of human geography) social sciences and history
- Human geography combines physical geography which examines natural phenomena, and human geography, which deals with human phenomena
- Phenomena refers to something that can be perceived or mentally constructed, such as an attitude or a quality, even though it cannot be immediately sensed
- Geographers are interested in where various phenomena are located, where they are distributed spatially, and how they vary over an area

#### Module 1 A – Pattern and Process:

- **Pattern** – the geometric arrangement of objects in space
- When you look at a map of the world or a map of a city, you are seeing a spatial pattern of different phenomena at any one point in time (**study figure 1A.1 and 1 A.2**)
- Patterns of the same phenomenon can change over time – geographers want to know why
- **Process** – is the action that brings about a particular pattern. Process represents the evolution and development of something over time
- When geographers think about process, they are interested in a few basic things
  - When a process began and when it ended
  - The logical ordering of a sequence of processes,
  - The relationship between different processes that might have affected the spatial location of distribution of a phenomenon, and
  - Why the sequence of processes occurred when it did.
- Processes in human geography do not always have to result in particular pattern – they are not **deterministic** rather **probabilistic**
- Processes are often **multivariate** – they may involve several different factors, and it can be hard to untangle the relative significance of each
- They are also **multiscalar** in that they take place at different spatial scales

#### Module 1B – Absolute and Relative Location:

- The key geographic attribute of any place is its location on earth
- **Absolute location** dictates where each place exists on a reference system
- Most basic is the **geographical coordinate system**
- **Relative location** of a place has to do with its location compared to other places – its location in context
- At the heart of geography is the issue of how some geographical phenomena relate spatially to other geographical phenomena and what this means (**study figure 1B.2 and 1B.3**)
- Relative location is suggested in many geographical descriptions like the following:
  - Land-locked country
  - Edge city
  - Agricultural hinterland
  - Cancer alley

#### Module 1C – Place and Space:

- Geographers are concerned with where, and where is often defined in terms of a specific place

- **Place:** Unique Location of a Feature
- A second key concept in geography is that of **space** – considered to be areas
- Spaces have two dimensions and include a number of places within them (**study Figure 1C.2**)
  - 4 ways to identify location – a position that something occupies on Earth’s surface
    - **Place names** (toponymy – the study of place names)
    - **Site** – constitutes the immediate environment of a place
    - **Situation** – is concerned primarily with the way in which a particular place relates to the space that surrounds it
    - **Mathematical location** – coordinates

#### **Module 1D – Place Attributes and Significance:**

- When we look at a place we need to be aware of its attributes and the scale used to show those attributes (**Study Figure 1D.1**)
- **Pure characteristic** – an attribute (characteristic) which applies to the whole country
- **Aggregate characteristics** – the dominant characteristics that are found within a place
- A few key ideas are important in considering the location and attributes of places:
  - **Relative significance** – the level of significance a characteristic has, depending on scale of analysis and the topic of interest
    - For example, the role of religion (**Study Figure 1D.2**)
  - **Scale** – determines the frame of reference and shows which characteristics are especially important
    - Scale is important because geographers like to think about the interactions of different places at different places at different scales
  - **Location in Space** – absolute and relative

#### **Module 1E – Mapping Spatial Distributions:**

- When geographers study patterns they are speaking of distribution
  - **Dispersed distribution** – a type of distribution in which there does not seem to be any type of agglomeration and incidences are well separated from one another
  - **Clustered distribution** – a distribution in which data show distinct pockets of concentration
  - **Random distribution** – a phenomenon that neither clustered nor dispersed
- Distribution of any phenomenon creates a pattern that can be analyzed in its own right
- Thematic maps are maps that show the distribution, flow, or connection of one or more characteristics
- Types of Thematic maps (**Study Figures 1E.1, 1E.2, 1E.3**)
  - Point pattern
  - Choropleth map
  - Class intervals
  - Isoline map

#### **Module 1F – Spatial Interactions and Distances:**

- Patterns emerge because of the relationships that exist between places
- Key aspects of geographic thinking:
  - **Place similarity** – one or more attributes that places have in common
    - Once a similarity is detected, the geographer might then ask why?
  - **Place interaction** – a wide variety of activities that occur between places
    - Often differences between places spur the greatest interaction
    - These interactions can be movements of people, ideas, etc.

- **Spatial interaction** – term used to describe the movement and interconnections between different places
- **Spatial connectivity** – networks created by spatial interaction
- **Accessibility** – term indicating how easy it is to move between different places
  - **Flow map** – often best way to depict the interactions between places
- Spatial interactions are heavily dependent on **distance** – a factor that heavily influences spatial interactions and can be measured in several ways (**Study Figure 1F.1**)
- Number of ways to measure distance
  - **Absolute distance or Euclidean distance** – measures the straight-line mileage between two places
  - **Travel distance** – traveling while following existing transportation routes
  - **Travel time** – actual time it takes to travel a distance
- **Distance decay** – the idea that, all else being equal, as the distance between two places increases the volume of interaction between these places decreases
- **Friction of distance** – as transportation technology and infrastructure improve, the amount of time it takes to get from one place to another decrease
- **Cognitive distance** – how distance is perceived

#### Module 1G – Regions:

- **Region** – a way of subdividing space into categorizable geographic units
  - **Formal regions** – places that have one or more characteristics in common (Study Figures 1G.1, 1G.4, and 1G.5)
    - Montana is an example of a formal region, characterized by a government that passes laws, collects taxes, and issues license plates with equal intensity throughout the state. The formal region of Montana has clearly drawn and legally recognized boundaries, and everyone living within them shares the status of being subject to a common set of laws.
    - The North American wheat belt is a formal region in which wheat is the most commonly grown crop, but other crops are grown there as well
    - Wheat belt can be distinguished from the corn belt – a region where corn is the most commonly grown crop
  - **Functional regions** – regions constructed out of places that interact (a relationship exists)
    - also called a nodal region, is an area organized around a node or focal point (**Study Figure 1G.7**)
      - EXAMPLE- Newspaper distribution: At some point between the two cities the circulation of the newspaper from the second city equals the circulation of the original newspaper. That point is the boundary between the nodal regions of the two newspapers
      - Example - Functional regions include the reception area of a television station and trading area of a department store
  - **Vernacular region** – or perceptual region are regions that people construct in their mind and may be very difficult to dissect (**Study Figure 1G.8**)
    - Mental map – depicts what an individual knows about a place, containing personal impression of what is in a place and where places are located
    - A vernacular region, American South – quite distinct from the rest of US
      - Economically, the South is a region of high cotton production and low high school graduation rates
      - Culturally, the South including the states that joined the Confederacy during the Civil War and where Baptist is the most prevalent religion

- Environmentally, the South is a region where the last winter frost occurs in march and rainfall is more plentiful in winter than in summer

### **Module 1H – Idea of Landscape (Study figures on pages 20 and 21):**

- **Landscape** – an area that is less defined than a region and is described in an abstract manner
- Landscapes could provide a visual cultural history, since people altered the landscape as they went about their daily work
- Recently – interest in how landscapes comprise physical, human, and symbolic elements
- Landscapes also reflect identity
- Visual way of examining a landscape
- Evocative way of examining a landscape
- **Iconic landscapes** – landscape types that bring to mind images and symbols essential to identity
- **Interior landscapes** – landscapes found inside a building, a house, or another structure. While invisible to outside eyes, these landscapes can be a vital part of people’s identity.
- **Carl Sauer** – came up with the term **cultural landscape**: the cultural impacts on an area, including buildings, agricultural patterns, roads, signs, and nearly everything else that humans have created.

## **Chapter 2 – Geography through the Ages**

### **Introduction:**

- In this chapter, you will be introduced to over 2,500 years of geography history
- Why? Because whenever you study a physical or social science for the first time, you really need to understand how thinking about a particular subject developed
- There are patterns on the earth’s surface (e.g., people live in some places but not others), and geographers want to know how these patterns were created (i.e., the process).
- In the most crude form of summary, the history of geography is the about humans discovering and learning the patterns of the earth’s surface and then trying to explain them

### **Module 2A – Ancient Geography:**

- To early humans, the world was largely terra incognita – unknown land
- Early geography focused on two basic elements of knowledge
  - **Description** – the recording of knowledge about the peoples and environment of the earth
  - **Measurement** – human understanding about the shape and size of the world
- Humans began making maps to record descriptions and measurements of the known world thousands of years ago
  - 14,000-year-old map on the wall of a cave in Spain
  - 11,000-year-old Babylonian map is believed to be the oldest
  - 6,000-year-old Chinese maps
- Homer was often considered the father of geography because his literary works have many descriptions of places around the Mediterranean
- The Greek philosopher Hecataeus took a more factual approach to description of the earth by compiling his own experiences with stories and descriptions of far-off locations from sailors who passed through the
- Herodotus, often described as the first historian, also included detailed geographic descriptions in his writings

- Ancient scholars began to divide up the world using north-south lines and east-west lines similar to the lines of latitude and longitude we still use today
- One famous map of the world was that of Ptolemy, who wrote a complex geography of the world in the second century AD
- Eratosthenes's efforts are perhaps most widely known. Using geometry, and with a little bit of luck, Eratosthenes calculated that the planet's circumference was 28,700 miles, only 15% off the actual circumference of 24,902 miles at the equator (**Study Figure 2A.4**)

### **Module 2B – The Middle Ages:**

- For centuries, the most common map of the world was something we now call a T-O map (**Study Figure 2B.1**)
- But the Muslim world was a bright spot in geographic knowledge during the dark Ages in Europe. Islamic tradition dictated that all good Muslims should be able to read the Quran, the Muslim holy book.
- The early rulers of Baghdad, founded in the eighth century, encouraged scholars to translate the works of the Greeks and Romans into Arabic, and thus the geographic knowledge of those civilizations were not lost, as they were in medieval Europe
- Two of the most notable Muslim geographers
  - **Al-al-Idrisi** – accurately combined ancient geographic knowledge with the firsthand knowledge of Muslim traders who had traveled the world. This resulted in the completion of both more accurate maps of the world and written geography of the known world.
  - **Ibn-Battuta** – **Study Figure 2B.2**
- The Chinese were keeping geographic records of natural resources as early as the fifth century BC, and we have centuries of Chinese geographic writings about the human and physical geography of places both far and near
- The Scandinavians were also expert explorers and settled locations in Iceland and Greenland before AD 1000. On the other side of the planet, locations in the South Pacific, such as the famed Easter Island, had already been settled by Polynesian travelers in boats before the fifth century AD.

### **Module 2C – The Age of Exploration:**

- The purpose of this section is not to rehash the basic history of famous explorers but, rather, to examine how the era changed and expanded geographic knowledge
  - Prince Henry the Navigator
- The Portuguese developed a new ship, the caravel, that allowed longer expeditions down the African coast and eventually into the Atlantic
- Henry's experts also improved navigation aids, such as compasses and astrolabes
- Portuguese explorer Vasco da Gama was able to sail around the southern end of Africa
- Problems – it was difficult for ship captains to know where they were located 500 years before the global positioning system (GPS) – (**Study Figure 2C.2**)
- Latitude location was relatively easy but longitude was harder until clocks
- 1775 John Harrison won the prize for making the accurate clock
- With an accurate method of determining longitude and latitude, maps and navigation improved tremendously and a more complete view of the world came into focus
- Technological advancements in navigation, along with faster ships, allowed the European powers to expand their control over vast area of Africa, Asia, and the Americas after the fifteenth century
- European culture traits spread nearly everywhere, including Christianity. Most notable was what is called the Columbian Exchange, which refers to the interaction between the Eastern and Western Hemispheres after the arrival of Europeans in the Americas

### Module 2D – The Birth of Modern Geography:

- The increased interaction among the peoples of the world began to stimulate an increased interest in how the world worked
- So, it makes sense that as the world's patterns became clearer, more scientists attempted to explain what was being observed
- Two geographers who bridged the gap between the works of the past and modern geography were the **Germans Alexander von Humboldt and Carl Ritter (Study Figures 2D.1 and 2D. 2)**
- Three areas dominated the study of Geography: scientific exploration, environmental determinism and regional geography
- The interest in **scientific exploration** (expeditions to explore certain parts of the earth ) was driven in part by the rise of geographic societies, such as the Royal Geographic society, founded in 1830, and the American geographic Society, founded in New York in 1851. The best surviving geography journal is the Nation Geographic Society
- One theory that dominated geography in the last decades of the nineteenth and first decades of the twentieth centuries was the now disgraced ideas of environmental determinism. The basic premise of this theory is that human culture is caused by the environment a society lives in. Geographers such as Frederick Ratzel in Germany and Ellsworth Huntington and Ellen Churchill Semple in the US were key proponents of environmental deterministic ideas
- The ideas of the environmental determinists were challenged by some scholars, including the French geographer Vidal de la Blache, the theorist credit with the ideal of possibilism
- The possibilists believed that the environment does not determine a society's culture. Rather, they believed that humans develop their own culture, but within constraints set by the environment (**Study Figure 2D.3**)

### Module 2E – The Twentieth Century:

- Within the discipline, geographers argued among themselves about whether geography should study unique aspects of the earth's surface or look for universal laws that apply everywhere on the globe
- An important theorist who changed the way geographers look at the cultural landscape was Carl Sauer, a geographer at the University of California, Berkeley, from the 1920s to the 1950s. Sauer did not believe in environmental determinism, instead emphasizing the impact of human cultures and physical processes on a landscape over time.
- 1930s – for many geographers, there was a strong attempt to divide the world into areas of common characteristics to make it easier to classify and understand the infinite diversity of the planet
- **Regional geographies** (a type of geographic inquiry that focuses on the region as the main way to classify and understand the world. Regional geographies tend to focus on broad, holistic descriptions of regions) of the world and parts of the world that discussed all aspects of a region, including language, religion, agriculture, industry, and political patterns
- But as geography focused primarily on understanding and identifying regions, a different set of skills was needed to complete the task
- This was the realm of **topical**, or specialized, **geography**.
- In order to understand the Great Plains of the US, for example, one needed to understand agricultural patterns and farming systems, so most geographers during the period adopted a topical specialty and focused on something more specific than a whole region
- Many adopted the approach of **systematic geography**, which focused on specializing in a particular type of geography, such as economic geography, political geography, or urban geography, and then applying theories to places and regions
- In addition, critics of the regional approach argued that, by focusing on particular parts of the planet, often in great detail, geographers were ignoring the opportunity to look for universal laws of truths

- 1950s – geographers such as Fred Schaefer argued that geographers should adopt more positivistic research methods, as do other sciences.
- **Positivism** argues that all knowledge can be pursued by the scientific method, and thus a strong emphasis is placed on observation and measurement
- This period is often referred to as the era of “geography as spatial science” or the **Quantitative revolution** (in geography, the movement that grew in strength in the 1950s and 1960s and that focused on statistics, positivistic techniques, and the search for universal laws to explain geographic patterns and processes) in geography, and attempt to find universal laws that explain geographic patterns and processes
- Another important development in mid-twentieth-century geography was the natural hazards research
- A pioneer in this field was Gilbert White, who made his mark researching the causes of flooding
- 1945 he wrote, “Floods are ‘acts of God,’ but flood losses are largely acts of man.”
- Modern geographers continue the work of White and others on natural hazards because of the emphasis on human-environment interaction (**Study Figure 2E.3**)

### **Module 2F – Behavioral and Humanistic Geography:**

- The desire to add more human decision making into spatial models led to the birth of what is known as behavioral geography, a focus on the psychological processes that underlie geographic decisions
- One way that behavioral geographers attempted to understand geographic decisions made by humans was through the concept of the mental map (maps that are the presentations of the real world, which we have in our heads – **Study Figure 2F.1**)
- The reality is that our mental maps of the world include many elements based on poor or incomplete information
- In general, humanistic geographers might argue that environmental destruction in a community indicates not only that there is a pattern of urbanization or industrial growth, but also that the culture of the society may not value the environment.
- One of the most important geographers of the humanistic tradition is Yi-Fu Tuan who wrote extensively in 1970s
- He explored concepts of **topophilia**, love of place, and **topophobia**, fear of place, and emphasized aesthetics, contact with the physical environment, and the importance of cultural ideas, such as patriotism.

### **Module 2G – Structuralist Geographers:**

- 1960s and 1970s (**Study Figure 2G.1**)
- Structuralism argues that humans actually have very little control in the world. Instead, structuralists believe that the world is actually the product of unobservable social structures that create what we observe on a daily basis
- For example, a structuralist might say that a college student is not at a particular college because of personal choice but because of unseen economic and social systems ... Naturally a college student has some choices, but a structuralist would argue that the structure of society is more important
- There is debate on how much weight is given to **structure** (larger economic or social systems) as opposed to **agency** (human decision making).
- Marxist geographers – is hunger caused by a lack of food in the world, or is the world’s food poorly distributed? A Marxist geographer might argue that the capitalist system caused hoarding or wasting of food by rich countries at the expense of poor countries. Or they might argue that capitalism encourages people to grow crops for sale, such as inedible tobacco, instead of crops that can be eaten by the local population
- Structuration in its most basic form proposes that society, and therefore the human landscape, is like a set of rules on which humans can choose to act or not act. For the most part, humans choose to reproduce the status quo, but at times we can also change it

- How are the ideas of slavery and ending slavery geographic? Many structurationists have focused on what are known as locales. They have argued that the intersection between societal structures (such as capitalism) and agency (human decisions) takes place in regions or even smaller places. Thus, if a geographer studied, for example, the economy of a particular region, he or she could better understand how the capitalist system had been implemented by humans. This led many researchers to return to studying regions and places, which had not been as common in an era of positivist spatial science or in the search for global structures.

### **Module 2H – Recent Decades:**

- In summary – the discipline went from exploration and a focus on environmental determinism to a concentration on regions to a quantitative revolution, and then decades of reaction to it. But change is constant, and geography continued to evolve in the last decades of the 20<sup>th</sup> century and into the 21<sup>st</sup> century.
- Two trends emerged during this period
  - A continuation of the social theory that had begun with humanistic and radical geographies
  - A surprising return to positivistic tradition sparked by new technological advancements
- Theoretical positions in geography that thrived at the end of the 20<sup>th</sup> centuries
  - **Modernism** – refers to twentieth-century trends in art, architecture, and literature that represented a break from tradition of the past
  - **Postmodernism** – (“after the modern”) – generally saw modernism as very rational, as evidenced in practical architectural styles. But they noted that the world often does not seem rational, and thus postmodernism often focuses on the differences from the norm that found in the world. In geography, postmodernists often focus on the singular aspects of particular places on regional diversity – quantitative revolution is often a target for postmodernists
    - in the end, postmodernism has been most useful as a way of challenging the assumptions of long-standing theories in order to examine the complexities of regional differences and the uniqueness of places
  - **Poststructuralism** – has its origins in critiques of structuralism that emerged in the 1960s among a group of French thinkers, including Michel Foucault.
    - Poststructuralism questions the search for deep structures and focuses instead on individuals, local differences, and historical factors that affect the social world
    - One way poststructuralism influenced geography was to emphasize that a landscape can have different meanings to different people
  - **Feminism** – within geography, one focus of feminist perspectives has been to emphasize the important contributions of female geographers and to promote women in the discipline
    - For example, in Saudi Arabia, women do not have the right to move freely around their country because of cultural traditions and a strict interpretation of Islam. The result is that Saudi men and women have very different geographies.
- The biggest impact that improvements in computing had on geography was probably in the development of **geographic information systems**, commonly abbreviated as **GIS (Study Figure 2H.3)**.
- Complex spatial statistics are also much more easily calculated within a GIS, allowing geographers to search for patterns hidden from researchers in the past