Chapter 1: Thinking Geographically

Chapter Outline

Introduction: Geography is more than rote memorization: Geographers ask where things are and why they are where they are. They use concepts of location and distribution to do so. Especially important in the study of human geography is the tension between globalization and local diversity.

Case Study: Big Mac Attack. This case study uses the example of fast-food restaurant location to generate some geographic questions: why are fast-food restaurants clustered? Why are the clusters located where they are? Furthermore, what are the cultural and economic implications of the global spread of a fast-food brand?

Key terms introduced: Place, region, scale, space, connections.

Key Issue 1. How Do Geographers Describe Where Things Are?

Cartography is the science of making maps. Maps are used for reference (where things are located) and for communication of the distribution of some feature or features.

Maps. Maps have been created for thousands of years, since at least the 6th century BC. Through the years maps have reflected new discoveries about places and the shape of the Earth.

Scale is the relationship between map units and the actual distance on the Earth. Ratio or fraction scale gives the relationship as a ratio, e.g. 1:100,000 is that 1 unit on the map equals 100,000 units on the ground. In a written scale units are expressed in a convenient way, e.g. “1 centimeter equals 1 kilometer.” A graphic scale is given by a scale bar showing the distance represented on the Earth's surface.

Maps are a planar (flat) representation of the Earth's curved surface. Thus, some distortion must result, especially at small scales (continental or whole-Earth maps). Cartographers must choose a projection that results in some set of distortions between shape, distance, relative size, and direction.

U.S. Land Ordinance of 1785: The township and range coordinate system is another mathematical means of describing location and is important to the current and historic geography of the United States.

Contemporary Geographic Tools. Global Positioning Systems (GPS) use satellites to reference locations on the ground. Remote Sensing is any technique for determining characteristics about the Earth’s surface from long distances—especially from airplanes and satellites. Geographic Information Systems (GIS) are complex computer systems which store and can be used to analyze and present geographically referenced data.

Box: Contemporary Geographic Tools. An overview of electronic navigation tools and their growing ubiquity.

Key Issue 2: Why is Each Point on Earth Unique?
Place: Unique Location of a Feature. Place names or toponyms are the most common way of describing a location. Place names sometimes reflect the cultural history of a place, and a change in place name is often culturally motivated. Examining changes in place name geography is a useful insight into the changing cultural context of a place.

Site makes reference to the physical characteristics of a place. Situation describes a place in terms of its location relative to other places. Understanding situation can help locate an unfamiliar place in terms of known places, or it can help explain the significance of a place. Mathematical location describes a place’s location using a coordinate system such as latitude and longitude. Latitude is based upon the Earth’s axis of rotation, with the Equator describing a line of latitude halfway between the poles. Longitude is culturally defined as starting at Greenwich, England and measures degrees of arc east and west of that line of longitude, or meridian.

The cultural landscape is a recurrent theme throughout this text. It represents the total sum of cultural, economic, and environmental forces combining to make distinctive landscapes across Earth.

A region is an area differentiated from surrounding areas by at least one characteristic. Formal regions are regions with a predominant or universal characteristic; formal regions commonly have well-defined boundaries. Functional regions are defined by an area of use or of influence of some feature. Often used in economic geography, functional regions have “fuzzy” boundaries as the influence of the central feature decreases over distance. Vernacular regions are the most ambiguously defined as they rely on a mental conception of a place as belonging to a common region for complex cultural reasons.

Spatial Association. Different levels of regional analysis can demonstrate dramatically different characteristics; geographers attempt to explain regional differences by looking for factors with similar distributions.

Culture is divided into “What people care about,” or beliefs, values, and customs, and “What people take care of,” or material culture.

The first definition is covered in Chapters 5, 6, and 7, on language, religion, and ethnicity. The second is covered in Chapters 4, 10, 11, 12, and 13, especially as it relates to variation in material culture by level of development.

This chapter’s section on culture introduces the concept of more and less developed countries (MDCs and LDCs) as a fundamental partition of world regions.

There are two schools of examining human-environment relationships, or cultural ecology. Environmental determinism, largely dismissed by modern geographers, states that physical factors cause cultures to develop and behave as they do. Possibilism recognizes the constraints of the physical environment while also crediting human cultures with the ability to adapt to the environment in many ways—including by changing it.

Physical processes: Climate, Vegetation, Soil, and Landforms. This section gives a brief outline of physical geography and relates it to the questions that human geographers ask about the surface of the Earth and its cultural ecology.
The final section of Key Issue 2 contrasts the case of Netherlands with southern Florida for two different cultural ecologies of environmental modification.

**Global Forces, Local Impacts: Hurricane Katrina.** The Hurricane Katrina disaster still serves as an outstanding example of the value of a geographic perspective to consider the interaction of human and physical geography.

**Key Issue 3: Why are Different Places Similar?**

**Scale: From Global to Local.** Globalization of economic activities has come as a result of increasing connections between places and the rapid movement of goods and information around the world. Transnational corporations are often seen as emblematic of this globalization and many of its positive and negative effects.

Economic globalization is matched with an increasing global influence and spread of some cultures, resulting in more uniform cultural landscapes across the world. Groups with distinctive local cultures may feel threatened by the globalization of culture, causing conflict or a sense of loss.

**Space: Distribution of Features.** Geographers measure the arrangement of features in space as part of their study of the Earth. **Density, concentration** and **pattern** are all measures of distribution.

**Density** measures the number of features per area of land. Other measures, such as physiological or agricultural density, are based on a subgroup of people or a subtype of land. **Concentration** refers to the spatial clustering or dispersion of features. **Pattern** describes whether features are arranged along geometric or other predictable arrangements.

Humans often arrange their activities in space along ethnic or gender divisions. Most concepts of difference among humans are culturally constructed and changes in cultural conceptions of difference are sometimes reflected in changing geographic arrangements, as when women make up an increasing percentage of the workforce.

**Spatial Interaction.** Some places are well-connected by communications or transportation networks, others are not as much. The shape of a network and barriers to interaction determine the level of **spatial interaction.**

**Diffusion** refers to the spread of anything from a cultural trait, people, things, or ideas from some point of origin (a hearth). **Relocation diffusion** is caused by the movement of people. **Expansion diffusion** refers to the growth of an idea to new areas through a hierarchy (**hierarchical** diffusion), popular notions or even contact (**contagious** diffusion), or the spread of an underlying idea divorced from its original context (**stimulus** diffusion).

Economic activities and dominant cultures diffuse unevenly around the world as part of the process of globalization, resulting in economic inequality (uneven development).
Introducing the Chapter

Chapter 1 begins with a longer introduction (four pages) before broaching the first Key Issue. This introduction gives students a chance to learn about the difference between geography as a method of scientific inquiry and its frequent misrepresentation as rote memorization of place names.

There are two case studies in this chapter: the “Big Mac Attack” on Page 4, and the New Orleans/Hurricane Katrina disaster discussed in the third box. Either one serves as a useful, engaging introduction to the concept of geographic inquiry.

Icebreakers

This chapter may seem superficial to many instructors, but keep in mind it is new ground for many students. For example, a 2006 National Geographic/Roper poll of Americans aged 18-24 found the following: “48% of young Americans believe the majority population in India is Muslim….Half of young Americans can't find New York on a map.”

This illustrates the challenge you face as a geography educator. Instead of calling attention to these statistics to your students, consider being positive in your introduction, as introducing this chapter will set the tone for the remainder of the course. This is your chance to emphasize the importance of geographic knowledge to all of your students, regardless of their eventual fields of study.

What is geography? Why is it important?

A class discussion of what geography is, and why it is important, is always a useful place to start with any geography course. Reasons for the importance of geography will vary by instructor, but a useful example of geographic inquiry is provided in this chapter’s presentation of the New Orleans/Hurricane Katrina disaster. Here are some other events to use as examples of geographic relevance at your own discretion:

- The Asian tsunami of December 2004. This example is another great one, like New Orleans, to show the interrelatedness of human and physical geography.
- The September 11, 2001 attack on the World Trade Center (and other targets).
- Ask your students where their footwear, clothing, or cars come from. Is there anything geographic about this?

What is the name of your town? Where is that? What is it like?

The terminology associated with place and region may be difficult for students to grasp. Explaining how we describe places every day will help build an understanding of how geographers think about place.
Try this method in class: Ask students individually where they are from until a place name not in the immediate area is encountered. If you are not familiar with the place (or perhaps even if you are), ask “Where is that?”

Explain that the students are using place names, or toponyms, to describe where they are from, but the place name is only useful as long as everyone knows where the place name is referring to.

When a place name is unfamiliar, we then need to refer to situation factors (and sometimes site factors) to tell people where a place is.

Mathematical location might seem quite abstract to students, but ask how many could list their addresses and zip codes. While not mathematical in the same way as latitude and longitude or UTM coordinates, the street address does represent a unique description of a discrete place. An Internet mapping program (e.g. Google or Yahoo Maps) can be used to demonstrate each of these concepts.

**Challenges to Comprehension**

**Scale**

Many, including professional geographers, confuse large and small scales. The smaller the scale, the larger the area covered. For example a globe is a very small-scale representation of the Earth. Yet many persist in referring to global issues as occurring at a “large scale.” Students may wish to read the text’s Appendix (pp.502-7) to better illustrate the difference between large and small scale.

To avoid confusion, consider referring to scales as “local,” “regional,” or “global.” This also helps emphasize the text’s themes of global vs. local contrasts.

These concepts are reinforced in Chapter 1’s Key Issue 3, Why are Different Places Similar?

**Understanding Geographic Information Systems (GIS)**

Students often confuse a geographic information system (GIS) with the Global Positioning System (GPS).

Students rarely understand the importance of GIS to the many processes that we take for granted in society. However, there are a variety of Internet resources which demonstrate how much a part of our everyday lives GIS are becoming. Some online examples include:

- Zillow (see “Resources” section)
- Real property databases managed by county or city governments (e.g., the King County parcel viewer at [http://www.kingcounty.gov/operations/GIS/PropResearch/ParcelViewer.aspx](http://www.kingcounty.gov/operations/GIS/PropResearch/ParcelViewer.aspx))
- Numerous “mashups” available on an ever-changing basis (try [http://googlemapsmania.blogspot.com/](http://googlemapsmania.blogspot.com/))
Vernacular regions

Some have a difficult time with the idea of a vernacular region. The example in the textbook uses a number of overlapping formal regions in an attempt to describe the vernacular region of the South. Consider using another example, especially one without a direction in the description, as these examples can be confusing (students think that a vernacular region must contain a compass direction).

Cultural Landscapes

The concept of a cultural landscape can be misunderstood as a principally environmental landscape. Help students learn about how pervasive cultural landscapes are by showing them some examples from around the world. Note that an Internet search for “cultural landscape” returns a number of results about extraordinary, famous, or unique landscapes: but cultural landscapes are pervasive and students will benefit from being able to interpret the cultural landscape of everyday places like their home town.

The Great Mirror: Dr. Bret Wallach of the University of Oklahoma has posted a remarkable collection of photographs for the purpose of displaying cultural landscapes at his website The Great Mirror, http://www.greatmirror.com/.

Another great option is the user-generated content featured on Panoramio (http://www.panoramio.com/), which are also on Google Maps (http://maps.google.com/), indexed under the “More…Photos” option. These photos are usually of “scenic” features but it’s possible to find more mundane cultural landscapes, too.

Assignments

Review/Reflection Questions

These questions can be used in addition to the “thinking geographically” questions at the end of each chapter. Students can be assigned these questions as homework, they can be given as essay questions on exams, or they can serve as focus questions for in-class discussions.

- Describe the site, situation, and mathematical location of our school [alternative: your hometown].
- Name three formal regions that this school is located within and give a reason for each. Do the same for functional and vernacular regions.
- Describe an element of your culture that appears to be environmentally determined (caused by the natural environment). Can you now provide evidence that this cultural element is only one of many possibilities in the given environment?
• Give a local example of not-so-sensitive environmental modification, as demonstrated in the book’s discussion of Florida. Are there multiple ways to achieve the desired result of an environmental modification? Discuss.

Coordinate questions

33.9 N, 116.25 W [desert northeast of Palm Springs, Calif., USA]
• What do you observe here? Describe what you see in terms of pattern, density, and/or concentration.
• How would you describe the climate of this area? What visual cues lead you to this conclusion?

33.75 N, 116.35 W [golf courses in Palm Desert, Calif., USA]
• How far away is this location from the previous coordinates?
• What is going on here? You may need to zoom in or out to understand what you see. Again, describe what you see in terms of pattern, density, concentration.
• How would you describe the human modification of the environment at this location? How would you characterize this particular cultural landscape?
• Zoom out from this location and describe where it is. What about its situation explains its existence?

Now look briefly at the following places:
33.434 S, 70.565 W [golf course in Santiago, Chile]
1.345 S, 36.717 E [golf course in Nairobi, Kenya]
26.093 N, 50.567 E [golf course near Awali, Bahrain]
39.965 N 116.234 E [golf course in Beijing, China]
47.985 N, 11.51 E [golf course outside of Munich, Germany]
• How do these locations demonstrate globalization and diffusion? How do you think this idea diffused? Explain your answer.

Resources

Zillow (http://www.zillow.com/)

Zillow’s mapping interface demonstrates some of the increasingly sophisticated geographic information available over the Internet. Zillow uses data from property records, street addresses, and sales histories to create estimates of property values.

This site can be used to demonstrate a number of geographic concepts in addition to the uses of GIS. For example, amenities and/or disamenities are shown to have an influence on property values.
Not all locations are available on this service, but a view of the United States as a whole is an immediately engaging demonstration of how geography matters, as median prices on houses in Midwestern states are significantly lower than East or West coast states.

**Geography Jobs**


See also: page 500 of the text, “Geography Jobs.”

**Connections between Chapters**

Chapter 1 does not spend much time introducing the structure and organization of the book, which allows for your own organization. However, each chapter is briefly introduced in the discussion of culture on pp. 21-22. Emphasizing the overarching structure of the book may help your students to approach the subject as holistic rather than just one chapter at a time.

The concepts in Chapter 1 lay the foundation for the remainder of the text. Especially important in Chapter 1 is the vocabulary associated with key geographic concepts, as the concepts associated with distribution, spatial association, and regions recur throughout the text.

Another fundamental concept introduced with culture is the division between more developed and less developed countries. This idea is continued in the first paragraphs of Chapter 2.

You can reinforce these concepts by providing previews of future chapters. You can also emphasize these concepts by explicitly referring back to the definition when they occur in subsequent chapters.

An overarching theme throughout the text and frequently referenced in the beginning of each chapter is the tension between forces of globalization and attempts to preserve local diversity. Each chapter introduction also references places, regions, where and why questions of geography, and spatial connections.