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Scale

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Special Focus: Scale

Introduction

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One of the television news broadcasts I watch regularly advertises the phrase, "Live, Local, Late Breaking." Since moving to the Oklahoma City metropolitan area from much smaller Tallahassee, Florida, I have questioned that phrase given the large area the station claims to cover. The television station is based in Oklahoma City, specifically in Oklahoma County. We can agree that news from that county is local coverage. However, what about the seven counties in the metropolitan statistical area? Are they local? Can any area encompassing 1.14 million people be thought of as local? With interstate highways functioning as arteries, news crews cross more territory more rapidly than ever before. Remote satellite transmissions allow a station's news crew to report live, late-breaking news across the metropolitan area, providing the appearance of being there and near the action. This fosters a feeling of being local and part of a community's concerns. Despite the fact the news may occur three counties away, it is still marketed and perceived as local.

The above example demonstrates the flexibility of scale. Understanding of what is local changes depending on who uses the term, and for what purpose. Humans define scales through a variety of means, including the media we watch, the things we consume, the places we travel, and with whom we interact. One can argue that the development of many transportation and communication technologies have had but one goal—to extend individual reach across space, expanding what is thought of as local and making the regional and global more accessible than ever before. These technological changes force us to acknowledge that humans create scales, and that none are necessarily stable. Local today is not the same area as the local 50 years ago. We move and interact across space in ways that render distance less of a barrier, expanding the area we see as easily accessible, and thus local. The regional does not seem so far away, and global travel and interaction is now within reach of more people than in any era of history.

The essays and lesson plans that follow explore the idea that scales are made by a variety of actors, individuals, and governments. People choose a specific scale to describe a phenomenon when it meets their needs. The decision to employ a particular scale reflects a specific understanding of what should be considered local, regional, or global. Scales are very powerful ideas that most people adopt without thinking about the impacts of invoking one. If a phenomenon is considered a local problem, do people have the right to appeal to state, national, or global institutions for help? If all parties agree something is local, it closes off other options at other scales to address an issue. If national institutions define a problem as local, would they pay attention to the appeals of those affected?

An example of the flexibility of and struggle over scale can be found in U.S. community credit unions. These credit unions are established to serve a specifically defined community. Today, many credit unions incorporate in their community multiple counties, including upwards of 300,000 people as possible members, based on living or working in the area. Regional banks argue this is unfair competition, and question how a credit union can claim to be a "community" credit union when it covers multiple counties and could have membership numbers in the hundred's of thousands. Clearly banks see community in much smaller terms. Thus far, federal regulators and the U.S. Congress have allowed credit unions to use this broad definition of community, much to the bank's dismay. Here we see two opposing interests, arguing over what is the proper scale of a community, with both sides clearly gaining economically and politically if their vision of community scale is seen as legitimate.

If the flexibility of scale impacts policy as described above, the same flexibility affects how geographers teach and research. Geographers must deal with issues of **methodological scale**, the scale at which data is gathered and questions are formulated by the researcher. Deciding what scale to use for research is shaped by the scales at which data are available and by what the researcher thinks is the appropriate scale. A continuum of scales (individual, community, regional, etc.) can be invoked to limit a study, as a geographer can not study everything and must compromise between learning as much as possible about a phenomenon and the practical limits to what one can accomplish. In this case, the choice of scale provides focus and limits to a research question.

Other concerns related to scale also impact research. The theoretical perspective used to frame a question could emphasize a global scale approach to a phenomenon while another perspective privileges local understandings. This leads a researcher to find or generate data appropriate to the scale used. If a geographer chooses to study poverty at the census block level with government statistics, only to find that data is collected at the county level, the geographer faces a choice. The research could continue at the census block scale, but would need new data sources and a shift to a new methodology.

Conversely, the scale that the data are available at may force a rethinking about researching at the census block level, and perhaps the theoretical framework used to approach the phenomenon to address the practical aspects of completing the research. Thus, geographical questions are highly influenced by the available data, the scale of that data and the theoretical stance taken by the researcher.

Most phenomena can be examined at multiple scales. Why geographers choose certain scales is often a matter of convention. A specific theory may identify particular scales as important. The availability of data may lead to multiple researchers using the same data, and thus the repeated use of the same scale. Geographers investigating a problem may discuss the issue and come to a common view about what is an appropriate scale to employ. Despite these conventions, geographers must acknowledge that most issues can be researched at multiple scales.

For example, we can ask what scale the impacts of AIDS in Africa should be studied at. AIDS clearly affects individuals and is predominantly transmitted through individual actions. Is this scale appropriate? AIDS deaths impact communities as parents infected with the virus die, leaving children to be cared for by grandparents, placing stress on the community. Does this tell us enough? With the deaths of people, how does the nation-state respond? What policies and education programs are put in place, and what scale are they implemented at? What are the impacts of AIDS infection rates approaching 25 percent of a country's population? Finally, what are the global ramifications of international air travel and tourism on the diffusion of AIDS? Is it an issue that can be left to nation-states to deal with or would a regional or global response be more effective? These are all questions that while focused on AIDS, produce very different knowledge about the disease. Each scale mentioned above would lead to different policies to combat the AIDS virus and the devastating effects on people.

The example above demonstrates that the scale chosen for a particular phenomenon has important impacts for policy. Those same choices impact our teaching too. For example, geographers use regions to organize information about countries and cultures, to make comparisons between places, and to structure analyses of various phenomena. The power of any scale is that we can generalize about the area covered in the scale, but these generalizations often paint a picture that misses many details. As we generalize, scales enable us to prioritize certain trends and patterns, leaving out the rich detail of how processes play out at other scales. What is included or left out is vital, because our choices of scale have impacts outside of research and academic concerns.

Scales impact our daily lives. When I hear someone say, "Think globally, act locally," I know they are cognizant of the multiple scales they live their lives in. When politicians want to bring together the people of a state as one group, we see the effort to foster common identity at the state scale, whether the state is Delaware or Alaska. Finally, I am sure most of us live in a media market where at least one newscast claims to be more local than the others. It is not important to say that one scale is necessarily right. More important for us as geographers and as educators is to demonstrate that scale is a powerful, useful and flexible concept in a range of situations.

The first essay by James Rubenstein[*] offers an overview on how geographers define scale for both map reading and in understanding human activities. The essay reviews the concept of scale used by geographers in creating maps and how scale is used to foster understanding of commonly used scales such as local, regional, and global.

Tourism is the focus of Anne Soper's essay. Her examination of the tourism industry and how it has changed due to advances in technology, making space and distance less of a barrier to travel, sets tourism in a global context. At this scale, institutional actors and tourism industry lobbies work to make tourism grow. The latter half of the essay examines the "glocal" form tourism has taken in Mauritius. Soper demonstrates how global tourism

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[*] Inclusion of Jim Rubenstein's essay is not an endorsement by the editor or the College Board AP Human Geography Program of the author's human geography textbook for use in AP Human Geography courses.

trends impact local scale actors as the government of Mauritius struggles with the need to foster development. The essay describes the need to participate in a global scale tourism industry and yet foster a local form of tourism development that meshes with local needs and desires to maintain a specific environment.

Finally, Phil Steinberg's piece on how the Internet affects scale focuses on the use of technology to create an image of place that may not mesh with the reality at the local scale. Communications technology challenges national scales and forces a reconsideration of the impact of technology on how nation-states maintain their identities in an age where Web sites from outside one's own country can define what the nation-state is.

Neel Durbin and Tom Wurst both reviewed one of the essays included here and have developed solid lesson plans for the classroom, with enough flexibility in both to accommodate the variety of teaching styles and approaches found in AP Human Geography today. In combination, the contributors and I hope this publication provides a basis for enhancing student understandings of scale, in particular, the flexibility and utility of the concept and the power it has in our societies.

Defining Geographic Scales

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Scale

Scale is an essential geographic tool for creating and interpreting maps. However, scale also has a broader meaning for geographers, as the relationship between any phenomenon and Earth as a whole.

Geographers think about scale at many levels, including global, regional, and local. At the global scale, geographers identify broad patterns encompassing the entire world. At the local scale, geographers recognize that each place on Earth is in some ways unique. Between the local and global, geographers construct a regional scale; a region is an area characterized by a unique combination of features.

Map Scale

When specifically applied to a map, scale refers to the relationship of a feature's length on a map to its actual distance on Earth. Map scale is presented in three ways: a fraction (1/24,000) or ratio (1:24,000), a written statement ("1 inch equals 1 mile"), or a graphic bar scale (Figures 1–3). Maps often display scale in more than one of these three ways.

A fractional scale shows the numerical ratio between distances on the map and Earth's surface. A scale of 1:24,000 or 1/24,000 means that one unit (inch, centimeter, foot, finger length) on the map represents 24,000 of the same unit (inch, centimeter, foot, finger length) on the ground. The unit chosen for distance can be anything, as long as the units of measure on both the map and the ground are the same. The 1 on the left side of the ratio always refers to a unit of distance on the map, and the number on the right always refers to the same unit of distance on Earth's surface.

The written scale describes the relation between map and Earth distances in words. For example, the statement "1 inch equals 1 mile" on a map means that one inch on the map represents one mile on Earth's surface. Again, the first number always refers to map distance, and the second to distance on Earth's surface.

A graphic scale usually consists of a bar line marked to show distance on Earth's surface. To use a bar line, first determine with a ruler the distance on the map in inches or centimeters. Then hold the ruler against the bar line and read the number on the bar line opposite the map distance on the ruler. The number on the bar line is the equivalent distance on Earth's surface.

The appropriate scale for a map depends on the information being portrayed. At the scale of the entire world, many details must be omitted because there simply is not enough space, but the map can effectively communicate processes and trends that affect everyone. Conversely, a map that shows only a small portion of Earth's surface, such as a neighborhood, can provide a wealth of details about a particular place.

A map of a local area, such as a city neighborhood, may have a scale of 1:10,000, whereas a map of the entire world may have a scale of 1:100,000,000. Otherwise stated, one inch could represent 1/6 mile on a local-scale map and 1,700 miles on a world map.

Spatial Scale

Geographers consider a continuum of scales when approaching space and place. These range from individual and community scales to the global. The following sections discuss three of the most commonly invoked scales by geographers, local, regional and global, and more importantly, the tensions and problems that come with living daily lives that cut across the scales.

Local Scale

At the local scale, humans possess a strong sense of place—that is, a feeling for the features that contribute to the distinctiveness of a particular location on Earth, perhaps a hometown or a vacation destination. Geographers think about the features that make each place on Earth distinctive.

Because all inhabited places on Earth's surface—and many uninhabited places—have been named, the most straightforward way to describe a particular location is often by referring to its place name. The location of any place on Earth's surface can also be described precisely by meridians and parallels, two sets of imaginary arcs drawn in a grid pattern on Earth's surface. A meridian is an arc drawn between the North and South poles (the resultant line is also termed a line of longitude.) A parallel is a circle drawn around the globe parallel to the equator and at right angles to the meridians (the parallel is also termed a line of latitude.)

At the local scale, geographers describe the distinctive site or physical character of each place on Earth. Important features include climate, water sources, topography, soil, vegetation, latitude, and elevation. Geographers also identify each place's situation, which is its location relative to other places. Use of local scale to define a phenomenon frames it so that geographers study greater levels of detail to show how distinctive a site or place is. As with map scale, the level of detail we deal with increases with scale. A large-scale map, such as a 1:10,000 or 1:25,000 map yields street-level detail on a topographic map, just as local-scale analysis provides rich detail about a site. The more you get a closeup view of an issue, the more detailed, specific information one discovers.

Regional Scale

The "sense of place" that humans possess may apply to the scale of a region as well to a specific point. A region can apply to any area larger than a point and smaller than the entire planet. But geographers most often identify regions at one of two scales: either several neighboring countries that share important features such as those in Latin America, or many localities within a country such as those in Southern California.

Geographers identify three types of regions: formal, functional, and vernacular. A formal region, also called a uniform or a homogeneous region, is an area within which everyone has one or more distinctive characteristics in common. The common feature could be a cultural value such as a language, an economic activity such as production of a particular crop, or an environmental property such as climate. In a formal region the selected characteristic is present throughout.

Some formal regions are easy to identify, such as countries or local government units. 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.

In other kinds of formal regions a characteristic may be predominant rather than universal. For example, 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. And the wheat belt can be distinguished from the corn belt—a region where corn is the most commonly grown crop.

Geographers typically identify formal regions to help explain larger-scale patterns, such as variations in religion and levels of economic development. The characteristic selected to distinguish a formal region often illustrates a general concept rather than a precise mathematical distribution.

A *functional* region, also called a *nodal* region, is an area organized around a node or focal point. The characteristic chosen to define a functional region dominates at a central focus or node and diminishes in importance outward. The region is tied to the central point by transportation or communications systems or by economic or functional associations.

Geographers often use functional regions to display information about economic areas. The region's node may be a shop or service, and the boundaries of the region mark the limits of the trading area of the activity. People and activities may be attracted to the node, and information may flow from the node to the surrounding area.

An example of a functional region is the circulation area of a newspaper. A newspaper dominates circulation figures in the city in which it is published. Farther away from the city, fewer people read that newspaper, whereas more people read a newspaper published

in a neighboring city. 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.

Other examples of functional regions include the reception area of a television station and the trading area of a department store. A television station's signal is strongest at the center of its service area, becomes weaker at the edge, and eventually can no longer be distinguished from snow. A department store attracts fewer customers from the edge of a trading area, and beyond that edge customers will most likely choose to shop elsewhere.

A vernacular or perceptual region is a place that people believe exists as part of their cultural identity. Such regions emerge from people's informal sense of place rather than from scientific models developed through geographic thought.

A useful way to identify a perceptual region is to get someone to draw a mental map, which is an internal representation of a portion of Earth's surface. A mental map depicts what an individual knows about a place, containing personal impressions of what is in a place and where places are located. A student and a professor are likely to have different mental maps of a college campus, based on differences in where they work, live, and eat, and a senior is likely to have a more detailed and "accurate" map than a first-year student.

As an example of a vernacular region, Americans frequently refer to the South as a place with environmental, cultural, and economic features perceived to be quite distinct from the rest of the United States. Many of these features can be measured. Economically, the South is a region of high cotton production and low high school graduation rates. Culturally, the South includes 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.

Southerners and other Americans alike share a strong sense of the American South as a distinctive place that transcends geographic measurement. The perceptual region known as the South is a source of pride to many Americans—and for others as a place to avoid.

Global Scale

Global scale is an increasingly important concept in geography because of globalization. Globalization means that the world is shrinking—not literally in size, of course, but in the ability of a person, object, or idea to interact with a person, object, or idea in another place. People are plugged into a global-scale economy and culture, producing a world that is more uniform, integrated, and interdependent.

The world contains only a handful of individuals who lead such isolated and sheltered lives that they have never seen a television set, used a telephone, or been in a motor vehicle. A few people living in very remote regions of the world may be able to provide all of their own

daily necessities. But even extremely isolated and sheltered people are at least aware that they are connected to some degree with people elsewhere in the world.

Modern technology provides the means to easily move money, materials, products, technology, and other economic assets around the world. Thanks to the information superhighway, companies can now organize economic activities at a global scale.

Geographers observe that globalization has also produced global-scale landscapes of increasingly uniform material artifacts and cultural values. Fast-food restaurants, service stations, and retail chains deliberately create a visual appearance that varies among locations as little as possible so that customers know what to expect regardless of where in the world they happen to be. Houses built on the edge of one urban area will look very much like houses built on the edge of urban areas in other regions.

Regardless of local cultural traditions, people around the world aspire to drive an automobile, watch television, and own a house. The survival of a local culture's distinctive beliefs, forms, and traits is threatened by interaction with such social customs as wearing jeans and Nike shoes, consuming Coca-Cola and McDonald's hamburgers, and other preferences in food, clothing, shelter, and leisure activities.

Underlying the uniform cultural landscape is globalization of cultural beliefs and forms, especially religion and language. Africans, for example, have moved away from traditional religions and have adopted Christianity or Islam, religions shared with hundreds of millions of people throughout the world. Globalization requires a form of common communication, and the English language is increasingly playing that role.

Global–Local Tensions

Geographers recognize that many contemporary social issues result from a tension between forces promoting globalization on the one hand and preservation of local-scale traditions on the other hand. Globalization has not destroyed the uniqueness of an individual place.

Global–local tensions underlie unrest in Iraq, for example. The global scale was the basis for the initial case made by the United States for going to war with Iraq in 2003; Iraq was said to possess weapons of mass destruction that could fall into the hands of terrorists. Strong regional-scale divisions emerged in Iraq after the United States and allied countries invaded Iraq and deposed Iraq's President Saddam Hussein. Iraq's principal ethnic groups were split into regions, with Kurds in the north, Sunnis in the center, and Shiites in the south. Much of the continuing violence in Iraq came at the local scale, because the country is divided into hundreds of federations, tribes, clans, houses, and extended families.

Differences in scale also influence understanding of environmental concerns such as air pollution. Global-scale environmental processes contributing to pollution include global warming through the buildup of carbon dioxide emissions and ozone layer depletion through the

emission of chlorofluorocarbons. At the regional scale, sulfur oxides and nitrogen oxides, emitted by burning fossil fuels, enter the atmosphere, where they combine with oxygen and water and return to Earth's surface as acid deposition. At the local scale, hydrocarbons and nitrogen oxides in the presence of sunlight form photochemical smog, especially above urban areas.

As more people become aware of the elements of global-scale culture and aspire to possess them, local-scale cultural beliefs, forms, and traits are threatened with extinction. Yet despite globalization, cultural differences among places not only persist but actually flourish in many places. The global standardization of products does not mean that everyone wants the same cultural products.

The communications revolution that promotes the globalization of culture also permits the reservation of cultural diversity. Programming, for example, is no longer distributed through a few channels reflecting a single set of cultural values. With distribution through cable, satellite, and computer systems, people have an almost infinite choice of programs, including those in languages with few speakers. With the globalization of communications, people in two distant places can watch the same program simultaneously. Similarly, two people in the same house can watch different programs.

Culturally, people residing in different places are displaying fewer differences and more similarities in their cultural preferences. But although consumers in different places express increasingly similar cultural preferences, they do not share the same access to them. And the desire of some people to retain their traditional cultural elements, in the face of increased globalization of cultural preferences, has led to political conflict and intolerance of people who display other beliefs, social forms, and material traits.

Although every place in the world is part of a global economy, globalization has led to more specialization at the local level. Each place plays a distinctive role based on its local assets. A place may be near valuable minerals, or it may be inhabited by especially well-educated workers. Transnational corporations assess the particular economic assets of each place.

A locality may be especially suitable for a transnational corporation to conduct research, to develop new engineering systems, to extract raw materials, to produce parts, to store finished products or to sell them, or to manage operations. In a global economy, transnational corporations remain competitive by correctly identifying the optimal location for each of these activities. Especially suitable places may be clustered in one country or region, or dispersed around the world.

As a result, globalization of the economy has heightened economic differences among places. Factories are closed in some locations and opened in others. Some places become centers for technical research, whereas others become centers for low-skilled tasks. Changes in production have led to a spatial division of labor, in which a region's workers specialize in particular tasks. Transnationals corporations decide where to produce things in response

to characteristics of the local labor force, such as level of skill, prevailing wage rates, and attitudes toward unions. These same corporations may close factories in locations with high wage rates and strong labor unions.

Geography matters in the contemporary world because it can explain human actions at all scales, from local to global. To capture the simultaneous importance of global and local scales, the term "**glocal**" has been adopted by some geographers, as well as by some international organizations and Internet sites. The term reflects the idea that global scale processes are acted out at the local scale. For example, this view implies globalization is carried out by individuals making daily decisions about their lives. This means that any change in global or regional processes must start at the local scale. Advocates of "glocalization" call for forces of globalization to take into account local-scale cultural, economic, and environmental conditions. Examples of glocalization can be found in global mass producers, such as McDonald's, that go glocal by creating items reflecting local cultures and tastes. One can go to a Mcdonald's in Maine and see the McLobster beside the Big Mac on the menu.

A generation ago people who were concerned with environmental quality proclaimed, "Think globally and act locally." Though environmental problems such as pollution and energy depletion were global in scale, actions such as recycling and conservation were local in scale. Contemporary geographers offer a different version of the phrase: "Think and act both global and local." All scales from local to global are important in geography—the appropriate scale depends on the specific subject.

Further Reading

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Glossary

Formal (or uniform or homogeneous) **region:** An area in which everyone shares in one or more distinctive characteristics.

Functional (or nodal) region: An area organized around a node or focal point.

Globalization: Actions or processes that involve the entire world and result in making something worldwide in scope.

Glocal: Term used to describe the simultaneous process of global-scale phenomena impacting local scale activities, and the impact local actions can have on global scale processes.

Meridian: An arc drawn on a the map between the North and South poles.

Parallel: A circle drawn around the globe parallel to the equator and at right angles to the meridians.

Region: An area distinguished by a unique combination of trends or features.

Scale: Generally, the relationship between the portion of Earth being studied and Earth as a whole, specifically the relationship between the size of an object on a map and the size of the actual feature on Earth's surface.

Site: The physical character of a place.

Situation: The location of a place relative to other places.

Transnational corporation: A company that conducts research, operates factories, and sells products in many countries, not just where its headquarters or shareholders are located.

Vernacular (or perceptual) **region:** An area that people believe to exist as part of their cultural identity

Hither, Thither, and Yon: Using the Island of Mauritius to Explore Issues of Geographic Scale in Tourism

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Learning Objectives

By the end of this case study, students will know and understand:

1. The way in which a local place (in this case, Mauritius) negotiates to **glocalize** tourism, in other words, make global trends in tourism conform to local needs.
2. Tourism , an example of consumption and leisure activity, as a focus for economic development (AP Human Geography Course Description, p. 9).
3) The way in which economic development is influenced by both global-scale trends in an industry and local community efforts to encourage development.
4. The impact of government policies on local economic development (AP Human Geography Course Description, p. 9).

Discussion Questions

1. How does a **locale** maintain its local identity in terms of cultural practices and ecological standards in the face of global-scale phenomena like tourism?
2. Compare your local tourism industry to the Mauritius. What is the attraction of your local tourism industry (relative location on a highway, nature, scenery, culture, history, sports and entertainment)? What impact do tourists have on your local culture and environment?
3. How important is tourism to your local economy? What organizations exist to foster tourism development in your local area? What organizations exist to lessen the impact of tourism and related developments?
4. When you are a tourist in the United States or abroad, how (if ever) do you interact with local populations?

Travel and tourism are things we have all experienced during some point in our lives. Perhaps it was a family outing to a theme park, a spring break adventure, or even a school field trip to a museum. Regardless of the time (a few hours or a weeklong trip) or place (foreign or domestic), we have all played the role of tourist. As a common part of our lives, tourism can be a useful vehicle for examining issues of scale and how this phenomenon is constructed at multiple scales.

Importance of Tourism

The worldwide demand for tourism continues to be high despite international terrorism, military conflicts, recent economic recession in the United States and other Western

countries, and the fear of deadly diseases such as SARS (Severe Acute Respiratory Syndrome) and avian flu. Although the years 2001–2002 did see a slight drop (0.6 percent) in international tourist arrivals the world over, tourism rebounded in 2004 and remains the largest and perhaps most powerful industry in the world, with 763 million recorded international travelers—an 11 percent increase over 2003. It is expected that by 2020 the number of persons traveling will rise to an astounding 1.56 billion (World Tourism Organization) in 2006. In terms of the job market, the World Travel and Tourism Council (2006) estimates approximately 80 million jobs are found within the tourism industry. Given the growing number of people traveling, the increasing global reach of travelers, the workforce needed to make travel and tourism possible, and the amount of income generated as a result of tourism, it is an important area for geographers to study.

The Spatial Scale of Tourism

Tourism as a global phenomenon, and as an individual practice, takes place at a variety of geographical scales. Broad patterns in tourism can be seen at a global scale. For example, travel to the less developed world by comparatively wealthy individuals from developed nations has become a popular and even prestigious pastime, spurred by the growing forces of globalization. This creates a generalized pattern whereby tourist-generating nations are located in the Northern Hemisphere and tourist-receiving destinations are found in the Southern Hemisphere. Global climate patterns also figure into the North-South movement of tourists. In tourism, this is often what creates seasonal highs in tourist arrivals. By way of example, consider the popular spring break destinations for United States students. A clear preference for warm, sunny, beach-oriented locations is evident. When months of winter weather chill North America, it is the tourist "in-season" for the tropical Caribbean. Airfares to the region will be notably higher, as will room rates. Advance booking will be a necessity and solitude may be hard to find.

Now more than ever it is possible for tourists to travel great distances in a matter of hours in their search for their version of paradise. Since more and more people have become world travelers, it has become a challenge, almost a game of sorts, to find unique ecosystems and the most unusual cultural practices. Regardless of the specific factors that entice tourists from abroad, tourism is believed by many governments of developing nations to be a key to changing the scale of the economy for the better, also known as development. To encourage tourism development, governments and others involved in touristic endeavors must pay careful attention to the international marketing of their country, its attractions, and its products.

The focus of tourism changes when tourism is examined at scales such as the region (e.g., the Caribbean) or on a national level. For independent countries, the image of the country is of vital importance to attracting international tourists. It is primarily the role of national governments to guide, design, and project an image that will be exported to other nations through television advertising, glossy brochures, travel guidebooks, and the Internet. A country must be perceived as politically stable, easy to get to, safe, clean, and attractive, among other things, in order to lure tourists. Additionally, countries must have the infrastructure (airports, roadways, hotels, attractions, banks, shopping, electric grids, telecommunications systems, water and

sewerage, etc.) to support foreign tourists. As the national government holds the purse strings, it is at this scale where decisions are made as to the physical location for tourism development and what resources should be designated as tourist attractions. A tourist attraction may be derived from a number of different resources: natural, cultural, historical, man-made, or a special event. The ultimate goal of this type of tourism planning is to bring in the desired type and number of tourists. Most nations desire to have a certain number of international visitors every year and anticipate tourism-generated revenue. However, for some countries too many tourists during a particular time frame or in a specific place can be very undesirable no matter how much money is generated. Such high tourism **densities** can create many problems at the local scale. Small islands dependent on tourism to support the economy can find that during certain times of the year tourists visiting the country outnumber local residents. This can create friction between locals and tourists, who are in conflict for resources. In the case of one particular island the need for electricity at a resort hotel was so great that the surrounding neighborhoods suffered blackouts. At other times lines at banks, airports, or for snow cones at the beach were so long that locals felt they were being pushed out of their own communities by the influx of tourists. Thoughtful tourism planning, whereby the **density** of tourists is either a) spread over a larger area or b) concentrated in tourist **enclaves,** can aid in alleviating some of these problems. The alternative is to restrict the annual number of visitors by issuing a limited number of tourist visas per year or through the creation of an exclusive "upmarket" destination with a hefty price tag that keeps it financially out of reach for some prospective visitors.

Another key consideration for national governments is the health of their natural environments. Natural environments can suffer irreparable damage by having to support more human beings than they can handle. On islands the natural environment tends to be more fragile than that of the mainland. Small island habitats are even more sensitive to human pressures. Unfortunately, tourism is often in conflict with maintaining healthy environments through carelessly planned coastal development (e.g., hotels built on the beachfront), loss of natural vegetation through the clearing of land and landscaping with nonnative plant species, an increase in the number of people participating in damaging water sports, the loss of wildlife habitats, an increased amount of waste (e.g., litter and sewage), and the list goes on. On the other hand, tourism revenues can be beneficial when allocated to promote conservation. Tourists themselves can also help by patronizing and vocalizing their support for environmentally conscious travel and tourism activities, often described as **ecotourism**. The relationship with tourism and the environment can be a double-edged sword, and it is the national government that sets the parameters for how the environment will be treated. A balance must be struck so that tourism does not destroy the environment that attracted the tourists in the first place.

Tourism has different implications at different scales of analysis and policymaking. While the national government may be responsible for planning and coordinating the general direction tourism will take, localities are responsible for taking the action necessary to build the tourism infrastructure, ideally after consulting with residents and business owners. A mayor or village council may provide the interface between tourism developers and locals to aid in communication between various parties. Communities may provide construction

workers and other laborers to build guesthouses, plant gardens, or remove construction debris, for example. Another responsibility that frequently falls on local governments is employing police who are trained to prevent and investigate crimes by or against tourists. All this is in addition to providing options for entertainment, opening restaurants and shops, and anticipating transportation needs for tourists and locals alike. Some local entrepreneurs will take advantage of the opportunities tourism affords and will invest in the development of tourism enterprise, but generally locations need the financial support of government, private-sector developers, multinational corporations, and sometimes nongovernmental or volunteer groups. Public spaces such as small parks, athletics fields, beach access points, and marketplaces will be planned at the town or village level.

At the **individual scale** many of the people who work in the tourism industry as guides, rental car agents, hotel personnel, gardeners, shopkeepers, and taxi drivers are residents of the local community. These workers, who live in a space constructed for tourists, must constantly balance their lives in terms of **public** and **private space**. In cities, towns, and villages, residents continue to live their lives alongside tourists. Locals raise their children, do their daily chores, and practice their religions whether tourists are present or not. Sometimes this means that adjustments need to be made so that conflicts do not arise. Space and privacy for the practice of religious or other cultural celebrations might be a concern for local citizens. This could include the opportunity for tourists to observe and even participate, but in tourist towns this must be taken into consideration while planning the event. Local decisions are constantly made to accommodate the needs, wants, and desires of both residents and tourists, but within the confines of national tourism directives.

Tourism can also be analyzed by exploring issues at the individual scale. Tourists, as individuals, make decisions about the types of tourism in which they will participate. Tourists fall into typologies, or categories, that describe how they choose to travel. Scholars have developed several different tourist typologies and most agree the majority of tourists fall within two large groups—mass tourists and individual tourists. Mass tourism, as the name suggests, is recreational travel accomplished in large, organized groups that go to enjoy landscapes with familiar images (e.g., Grand Canyon, the pyramids, Maasai warriors, Italian architecture) (Shaw and Williams 2002; Urry 2002; Smith 1989). Group travel affords safety and familiarity to those travelers who prefer the regimented predictability of packaged tours (Shaw and Williams 2002; Urry 2002; Williams 1998; Ritzer 1996; Smith 1989; Cohen 1974). In addition to the perception of increased safety with group travel, mass tourists enjoy interacting with other group members, and this accentuates the travel experience. Individual tourists, on the other hand, prefer to retain control over their leisure time and plan their own trips, mixing and matching activities using the existing tourism infrastructure at the host destination (Shaw and Williams; Urry; Smith; Cohen). Individual tourists may be solo travelers, couples, or other small groups such as families. Compared to mass tourists, individual tourists are less reliant upon other group members for their overall enjoyment of the travel experience. They are attracted by unique places and people, are more adventurous, and are inclined toward cultural exchange with members of the host society (Shaw and Williams 2002; Urry 2002; Williams 1998; Smith 1989).

Tourists are known for being fickle. They want to visit the popular places and in particular ways. For many young Americans in the 1960s, a post–high school trip to Spain, Italy, and perhaps a few other Western European countries, was in vogue. Luggage was small and had hard sides that would boast of destinations visited by prominently displaying souvenir stickers. In the 1980s group travel was a popular way to see foreign destinations. Hordes of American tourists would pile out of tour buses in front of the Louvre, Eiffel Tower, the Vatican, and the Acropolis. Guides would lead the groups on an established route, giving highlights of history, culture, art, and architecture along the way. This was the height of mass tourism. Destinations and modes of travel fall in and out of favor and it is a continual challenge for tourism planners, tour operators, and other stakeholders to keep in tune with the whims of tourists.

Keeping pace with the ever-changing desires of tourists is a demanding task for destinations, but decisions with regard to tourist typology must be made as well. Some locations may not be suitable for mass tourism because they lack sufficient infrastructure. For example, an island may not be able to construct an airport long enough to land jumbo jets, therefore mass tourism may be out of the question. Consideration must be given to how many people can occupy a physical space such as a village, city, or even a roadway at one time and firm limits should be set. While mass tourism brings in a large number of tourists, mass tourists do not tend to stay for extended periods of time and therefore do not contribute to the economy as much as those who go on longer trips. Some tourist destinations will decide not to engage in mass tourism for reasons other than physical capacity and economic returns. Environmental protection and the preservation of local societal norms are also common reasons for not wanting to operate as a mass tourism operation. Small tourism developments intentionally geared toward fewer tourists who stay longer, desire a connection with the host society, are ecologically sensitive, and/or spend more money on luxury goods, can be an alternative path that is as economically lucrative as mass tourism, albeit with fewer visitors.

To illustrate the practical application of geographic scale in tourism, the following case study is offered. It demonstrates a few of the challenges faced by the Indian Ocean island of Mauritius.

Case Study: Tourism in Mauritius

Mauritius is one of three volcanic islands of the Mascarene group. Because of its volcanic origins, Mauritius has a mountainous interior and is therefore considered a high island. It is a small land mass measuring 720 square miles approximately 500 miles east of Madagascar. The island is surrounded by a fringing coral reef that protects 125 miles of white coral sand beaches, sheltered coves, and turquoise lagoons.

It was here that European explorers, nearly one hundred years before the establishment of a permanent settlement, began the drawn-out process of occupying Mauritius. Mariners discovered that Mauritius was strategically located for military purposes and as a stopping point during long voyages across the Indian Ocean. The Dutch were the first to establish

a colony on Mauritius, and by 1710 environmental consequences were already being felt through the elimination of the flightless dodo bird and by felling so much ebony that its price on the European market dropped drastically (Teelock, Vijaya, and Alpers, 2001; Addison and Hazareesingh, 1984). To put this in perspective, it might be useful to think back to the global-scale economy of the 1700s. Europeans considered tropical hardwoods a luxury good from which high-quality furniture was built. Ebony carried a hefty price tag until the European marketplace was flooded with the Mauritian hardwood. The quantity of wood harvested from Mauritius and transported to Europe was significant enough to drive down the price in Europe and nearly wipe out every tree in Mauritius. Following the Dutch period the French, and later the British, established a sugar monoculture system under which sugar was grown as the single most important crop. Like ebony, sugar was also a much sought after commodity in Europe and Mauritian sugar was grown for the sole purpose of exportation to Europe, where it would earn a high price. Sugar remained the backbone of the Mauritian economy even after independence was achieved in 1968. Today the island is still very much a monoculture with nearly 90 percent of the island still planted in vast fields of sugarcane so expansive that the land can resemble a sea of green as gentle breezes create waves.

Since its independence, Mauritius has been a stable democracy that has grown to a population of slightly more than one million. Known for being a nation of many ethnic groups—Indian Hindus and Muslims, Europeans of French and British descent, those of African origin, and Chinese—Mauritians live together in relative harmony. Considered a developing country on a global scale, Mauritius rapidly transitioned from a low-income economy in 1968 to a middle-income economy that has diversified from its agricultural origins to include export-oriented manufacturing of textiles, a financial services center, and a tourist paradise.

After the Second World War, the potential for island tourism was recognized, but it was slow to develop until the 1950s when commercial air travel began. (Wang, 2000, Williams 1998, Wright 1974). Modern transportation systems significantly changed the scale of tourism. More tourists were able to travel greater distances in shorter periods of time. However, even with the advent of jet transportation and its availability to passengers, "modern" aircraft of the 1950s flew at relatively low altitudes, were small and heavy and required frequent stops for refueling. A trip to Mauritius from Europe, for example, would take a couple of days to accomplish, with several stops in Africa. Today the flight from France is accomplished in 12 hours nonstop and tourist arrivals in Mauritius are at an all-time high as a result of technological advancements in aviation and transportation in general, resulting in a shrinking of the globe in terms of relative distance.

The 1960s mark the official start of nation-state level tourism development in Mauritius (Alladin, 1993; Government of Mauritius, 1988). Improvements in aviation made this remote island location much more accessible to tourists. (Government of Mauritius, 1988). From 1960 to 1965, sizeable government loans were allocated for hotel development and additional funds were designated for the worldwide promotion of tourism in Mauritius (Government of Mauritius, 1966). The active development of a tourism sector corresponded

with a gradual decline in the agriculturally based economy of the past and as hotels were being built, the number of productive sugarcane plantations was beginning to dwindle. Over a period of time an unavoidable adjustment occurred and as a result tourism rose to become a dominant economic activity alongside sugar production (Alladin). Trends over the past 30 years have indicated that agriculture has fallen behind as an income generator and international tourism has become the single most important engine of growth for Mauritius.

Although Mauritius's economy did expand with the addition of tourism, the general lack of economic diversification complicated matters since all the islands of the Indian Ocean region compete for the same tourist dollars. On a regional scale new tourism products or tourism niches, such as ecotourism in neighboring Madagascar, are created and actively promoted. To the north of Mauritius, the Seychelles is a long-standing mass tourism destination for beach lovers. Unlike Madagascar and the Seychelles, Mauritius has targeted those travelers who fall under the individual tourist typology. Since sun, sea, and sand are the main tourist attractions for most island vacation spots including Mauritius, the vast majority of tourism efforts have, from the very beginning, focused on meeting tourists' demands for the ideal high-end, sun-filled holiday.

As the perception of Mauritius as an exotic beach destination for wealthy Europeans grew, more tourists scheduled vacations to the island paradise. The demand for luxury tourist accommodations rose as well. By observing the large-scale, mass tourism developments of the 1970s in other parts of the world, Mauritius made a conscious decision to avoid those problems and shoot for the smaller upscale tourism market. It was intent upon using the island's natural beauty to attract a smaller, but wealthy clientele in order to turn larger profits and deter the "tag rag and riff raff of the consuming society" from gravitating to the island (Government of Mauritius, 1988). In keeping with the goal of reserving the island for the upscale market, only the national airline, Air Mauritius, and a few others were granted permission to land on Mauritius. Charter flights were, and still are, prohibited. Restricted commercial aircraft access has meant ticket prices for long-haul, global-scale, journeys to Mauritius have remained expensive compared to the price of similarly remote locations served by numerous airlines. While this policy may keep down the number of less affluent visitors, it may also discourage some very wealthy travelers.

Today Mauritian tourism is largely dominated by French, British, and Reunionnaise (people from the neighboring island of Reunion, a French Overseas Territory), tourists between 20 and 40 years of age traveling on holiday to what they perceive to be a destination centered on sun, sea, and sand. Indeed, it is the tropical image and beaches that attracted approximately 80 percent of tourists to visit Mauritius, according to the results of the 2000 *Survey of Outgoing Tourists*. The contemporary context forces Mauritius to struggle with several **glocal** issues. The government has struggled with how to manufacture "paradise" for Western tourists and, at the same time, protect the natural environment. Missteps have been made due to a lack of proactive environmental regulations regarding tourism development that allowed for damaging coastal construction, waste disposal into the

lagoon, the introduction of foreign vegetation for landscaping, and other detrimental actions. More contemporary issues impacting tourism include litter, stray animals, and noise and air pollution from vehicles. However, in keeping with global-scale interest, and education and research on environmental issues, there is a growing local-scale awareness and increased national-scale involvement to better conserve natural resources in Mauritius. Nongovernmental organizations are clear leaders in Mauritius's environmental movement as they work to protect the endangered species such as the pink pigeon, Mauritius kestrel, echo parakeet, indigenous forest, and other vegetation unique to Mauritius. Tourists can visit areas where conservation is being practiced and see for themselves that efforts are under way to keep other flora and fauna from going the way of the doomed dodo.

In the case of Mauritius, although there is a seasonality to tourist arrivals, at no time do the number of tourists outweigh the number of locals on the island. The seasonality corresponds with winter vacation in Western Europe and again during the European summer holidays. Tourists are unevenly distributed across the island. Most tourists are found in coastal locations, with larger-scale tourist zones to the north and west. The interior of the island often goes unseen by foreign tourists, with the exception of a few small-scale attractions.

The concept of tourism in Mauritius has always referred to foreign visitors, and that is where the emphasis has been placed by tourism stakeholders. Domestic tourism, or local-scale tourism that is practiced by residents who visit attractions on the island, is a seldom-used phrase in Mauritius. For several years, Mauritians have expressed a desire to have the government expand the leisure options available to them. They have stood patiently by and watched more and more tourists on the beaches, enjoying water sports, watching Sega folk dance shows, and visiting island attractions. While the beaches are supposed to be a national asset accessible to every Mauritian, some hotels and other property owners try to limit the foot traffic on an individual scale by placing guards to deter "trespassers"—mostly Mauritians. Hotel amenities are cost prohibitive for many Mauritians and there is some resentment that hotels and the government do so much for foreigners and so little for locals. There has even been a call for the government to establish an official "leisure policy." In 2003, the Minister of Tourism began hosting family day events geared toward Mauritians at popular tourist attractions. A festival type atmosphere welcomed any one who wanted to attend. Three locations hosted the Minister's initiative – Pamplemousses Botanical Garden and the Sugar Museum, the Waterpark, and a nice beach with a variety of water sports. If a fee structure was in place, special prices were negotiated for a period covering several days. According to the newspaper coverage, the turnout demonstrated that Mauritian tourists on an individual scale were enthusiastic to participate in domestic (local scale) tourism when encouraged to do so by national-scale tourism officials. Therefore, this new dimension of tourism in Mauritius is expected to continue and expand in the coming years.

Mauritians have welcomed international tourists with warmth and sincerity for many years. Tourism has benefited the Mauritian economy and provided tourists with a vacation in paradise. However, none of this happens without significant planning and organization at

multiple scales and by a variety of different stakeholders ranging from tourists, governments, intermediaries, and individuals.

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Glossary

Concentration: The property of being crowded together in space. Tourists wandering about a defined tourist district are an example of a concentration.

Density: The number of people per unit area, usually measured in terms of people per square mile or square kilometer. Higher densities of people indicate greater demand on local resources and infrastructure.

Diffusion: The spread of a trait or phenomenon across space.

Ecotourism: the shorthand for ecological tourism, a form of tourism activity that focuses on minimizing impacts on local environments and cultures, while emphasizing conservation of natural resources and the idea of sustainable tourism.

Enclave: A culturally or functionally specific bounded area within a larger area. Examples include a tourist district, central business district, and shopping district, all within a city.

Glocal: Term used to describe the simultaneous process of global-scale phenomena impacting local-scale activities, and the impact local actions can have on global scale processes.

Glocalize: The process of dealing with global-scale phenomena by adapting them to local cultures and needs, usually through the interactions of actors across multiple scales.

Locale: A place, usually focusing on a specific event or phenomenon.

Individual scale: A level of scale defined as being centered on the individual, including their body, their immediate surroundings, and their activities in space.

Private space: a space that is controlled to limit interaction with the public. Examples include private areas of homes not regularly shared with guests, the courtyards of houses, and similarly sheltered space.

Public space: A space set aside for public use, without formal barriers to access such as fees or tickets. Parks, libraries, and streets, where a range of interactions occur, serve as public spaces.

Tourism and Scale Lesson Plan

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Links to the AP Human Geography Topic Outline

- I. C. Key concepts underlying the geographical perspective: location, space, place, scale, pattern, regionalization and globalization.
- I. D. 3. How to recognize and interpret at different scales the relationships among patterns and process.
- III. D. 1. (Cultural) values and preferences
- VI. C. 6. Local development initiatives: government policies

Vocabulary

Cultural landscape: The built environment that reflects the cultural specifics of a society. Shopping malls may reflect consumer culture on the landscape; large garages signify the importance of cars in American society.

Cultural traits: Specific manifestations of a culture, such as objects, traditions, and beliefs that are specific to a given culture.

Ecosystem: A framework to describe the complex interactions between species and their environment, and the resulting impacts species have on the environment and vice versa.

Ecotourism: A form of tourism that is marketed to emphasize links to nature, and in many cases, tourism that provides sustainable development for a locale.

Global scale: Unit of analysis when examining a geographical phenomenon or problem that encompasses the entire globe.

Globalization: Actions or processes that involve the entire world and result in making something worldwide in scope (Rubinstein, 2007, this text.)

Glocalization: The process of local-scale adaptation to global-scale phenomena in such a way that local cultures and needs are incorporated into the resulting cultural landscape patterns. Examples include McDonald's offering locally specific foods, while still reaching for mass markets.

Infrastructure: The underlying social institutions or physical facilities that support a particular phenomenon. For tourism, the hotels, public beaches, and local government's need to build a tax base are all examples of tourism infrastructure.

Local scale: The level of analysis that explores relationships between phenomena and humans with the most detail. It is also the most malleable of scales.

Map scale: A ratio expressing the size of a map versus the actual area the map represents. Small-scale maps cover global issues while large-scale maps provide greater levels of detail.

Mental map: Usually an individual-scale map that represents a person's base of knowledge about a locale, including positive and negative perceptions of place.

Multiplier effect: the idea that increased spending in a local economy will be returned to the local economy through profits and wages, which will increase consumption, thus keeping more money in circulation, and creating jobs and economic growth. This extends not only to people, but also to firms that may complement each other.

Perceptual region: A region constructed by people based on their perceptions of a place, whether directly experienced or through various media. These are often linked closely to mental maps.

Primary economic activities: Industries that involve the extraction of raw materials and agricultural products. Examples include farming, timber, and the oil industry.

Regional scale: The level of analysis that explores relationships between phenomena and humans using the framework of regions to limit the depth of study. The regions used to define these scales may be drawn from formal, functional, or vernacular regionalizations.

SARS: Severe acute respiratory syndrome

Scale: Generally, the relationship between the portion of Earth being studied and Earth as a whole, specifically the relationship between the size of an object on a map and the size of the actual feature on Earth's surface.

Service industries: Economic activities generally associated with white-collar work, but including services that help firms (accounting, advertising, marketing) in addition to those aimed at individuals (housekeeping, educational tutors, tourism).

Specialization: The increasing breakdown of economic activity into smaller parts in order to promote efficient production or delivery of services.

Tourist typologies: Classifications of tourists based on their desired experience (ecotourists, adventure tourists, cultural tourists, etc.).

WTO: World Tourism Organization

The vocabulary list is a part of each unit. The list is given at the beginning of the unit and a separate vocabulary test is scheduled and given as a part of the unit plan.

Classroom Discussion Activity

Tourism is the largest industry in the world. Scale must be a major consideration when planning tourist development.

After an introductory lecture on scale the students will read the Rubenstein essay on scale as well as the Soper example on tourism in Mauritius.

To explore this concept of scale in tourism, the students will be divided evenly into four groups. Each group will discuss the effects of tourism at different scales. Group A will discuss tourism on a global scale; Group B, regional; Group C, local; and Group D, individual.

The students within each group will then number off. If there are 28 students in a class, then there will be seven students in each of the lettered groups (A–D). Each student in each group will be assigned a number, 1–7.

The class will then divide into the seven numbered groups. Each numbered group should have a student from each of the lettered groups A–D. Each of the four students should then lead a discussion on the effects of tourism at the scale that their lettered group discussed.

Assessment of the lesson will be in the form of a constructed response question (CRQ) utilizing the information acquired during the activity.

Constructed Response Question

Tourism is the largest industry in the world. The positive and negative effects of tourism reach people at all scales.

A. Discuss three negative effects of tourism on a local scale.
B. Discuss three positive effects of tourism on a global scale.
C. List five specific benefits of tourism on a national scale.

When the students conclude the essay the class will discuss the answer. A recorder will construct a rubric by compiling a list of correct answers. When the rubric is duplicated, each student will score answers from two classmates.

In concluding to the activity, do not pass up the opportunity to explain how the activity changed scale from global (the entire class), to regional (lettered groups of seven), to local (numbered groups of four), to individual (individual assessment).

Scale in Cyberspace

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Learning Objectives

By the end of this case study, students will know and understand:

1. The ways in which processes operating at once scale can impact experiences at a different scale;

2. That few phenomena can definitively be located as occurring at just one scale;

3. That the scale of the "national," an often forgotten)or taken-for-granted) scale exists between the global and local, and;

4. How the national scale, which appears to be grounded in a stable concept (the nation-state), itself is subject to contestation through, among other sources, its representation on the Internet.

Discussion Questions

1. After the class reads this case study, have the students identify other phenomena that exist at multiple scales. Students' ability to perform this task will be a good indication of whether they are appreciating one of the central lessons of the case study.

2. What does it mean for a town or city to have a presence in cyberspace? What does it mean for a nation-state to have a presence in cyberspace?

3. What scale is cyberspace regulated at? (Local, regional, nation-state, international, all of the above?)

4. If you have a MySpace or Facebook page, what scale(s) are you operating at?

Locating the Global and the Local in Cyberspace

Locating any geographic phenomenon at a particular scale is always difficult, in large part because the processes that lie beneath these phenomena cross scales. The Internet illustrates these problems in assigning a phenomenon to a single, specific scale.

At first glance, the Internet appears as a global-scale phenomenon. Turn on your computer and you are connected to the entire world. Many Web sites are identified by .com addresses and have no street-address contact information; they cannot easily be associated with any specific place or any specific country. Even if one can identify the location where the Web site's server is located, that does not necessarily have any bearing on the content of the Web site or the experience that one has when viewing it. Hence, as an arena without locations, the Internet appears to exist only at the global scale.

From another perspective, however, the Internet is intensely local. When you are surfing the Internet you are sitting at a PC, a *personal* computer, and what could be more local than the personal? This personal computer itself is located somewhere, and one typically remains in one place as one surfs. Furthermore, the location of your computer affects your experience on the Internet. Many locations (such as public libraries) and even some countries place "firewalls" that block you from accessing certain areas of the Internet while you're seated at particular locations. Indeed, countries and institutions that block access to some areas of the Internet frequently justify their actions by citing their desire to uphold "local standards" or because of the need to respect "local sensitivities." Frequently individual users are themselves conscious of these local sensitivities. You may police yourself, for instance, by closing a browser as you sense that someone is about to peer over your shoulder and look at your screen. Put simply, a sense of "place" matters, even on the Internet.

Place matters on the Internet in other ways as well. Not only do you access the Internet from specific places, but "sites" on the Internet are themselves local places, even if you cannot identify their geographic coordinates on a map with latitude–longitude coordinates. If, to quote geographer Peter Taylor, the local is the scale of experience (Taylor, 1982), and if you have different experiences depending on where you "go" on the Internet, then you are, in effect, going to different local "places" as you surf through cyberspace.

However, if the Internet is an arena of *places*, these places are not necessarily like the places that characterize the material world. In the material world, a place is typically conceived of as a point in space; a specific location on Earth's surface where individuals are located and where they experience events, nature, and a community of individuals that are also located in that place. This gives one a sense of site and situation On the Internet, however, places are not always distinct locations in space. Instead, a place may be a web of connections that *cross* space.

Consider, for instance, the geographic rhetoric of most social movements on the Internet. Whether the group's mission is religious solidarity, environmental conservation, political change, or global human rights, part of its effort typically involves cultivating a sense of identity among those who view the organization's Web site and who subscribe to the organization's ideals. In many cases, the Web site will contain a bulletin board or blog through which supporters of the movement can become connected with each other. Supporters of the movement thus go to a "place"—the organization's Web site—to become connected with others, but this place is significant not because it is a point *in* space but because it stretches *across* space. Indeed, many organizations boast that they have (or should have) power because they represent a *global* community. If "place" and "community" can exist at the global scale, it follows that the example of the Internet must lead one to question the apparent distinction between the local as the arena of experienced places and the global as the arena of distant connections.

. . . and the National Scale

While it is easy to see the global and local aspects of the Internet (even if it is not so easy to separate the two), it is perhaps more difficult to perceive how it is also a national-scale phenomenon. Nonetheless, from the very beginning, the Internet has existed both as a creation of nation-states and as a medium that reproduces the ideal of the nation-state as a fundamental scale for organizing society.

The Internet has its origins in a project of the United States military, which was later transferred to the U.S. National Science Foundation. While some Internet policy is now made by intergovernmental organizations acting at the global scale, core technical management functions still reside with a California-based corporation contracted by the U.S. government: the Internet Corporation for Assigned Names and Numbers (ICANN). The significance of the national scale in Internet design and management is symbolized by the seven generic top-level domain names (gTLDs) first designated for use on the Internet: .com for commercial entities, .edu for educational institutions, .net for networks, .int for organizations established by international treaties, .mil for the United States military, .gov for governmental entities within the United States, and .org for all other registrants. This was a global naming system, but two of the seven names were reserved for entities affiliated with the U.S. government.

The construction of the Internet as a series of national-scale spaces received a further boost when the Internet Assigned Numbers Authority (IANA, the predecessor to ICANN) created a parallel system of two-letter, country-code top-level domain names (ccTLDs), such as .ca for Canada, .uk for the United Kingdom, and .jp for Japan. Although early Internet designers, envisioning the Internet as a global-scale arena, "didn't think the country codes would be used for much" (Anon, 1997), within a short amount of time the gTLDs came to be perceived internationally as United States TLDs and registrants in countries around the world (except for the United States) flocked to their ccTLDs (Mueller, 1998). As of July 2006, about 155 million hosts were registered with ccTLD suffixes, compared to just 76.7 million hosts registered with .COM names (Internet Systems Consortium, 2006).

As early as 1993, top officials at IANA acknowledged that the system had deviated from their original plan:

> Even though the original intention was that any educational institution anywhere in the world could be registered under the .edu domain, in practice, it has turned out with few exceptions, only those in the United States have registered under .edu, similarly with .com (for commercial). In other countries, everything is registered under the two-letter country code, often with some subdivision. For example, in Korea (.kr), the second level names are .AC for academic community, .co for commercial, .go for government, and .re for research. However, each country may go its own way about organizing its domain, and many have (Cooper and Postel, 1993).

In other words, as geographer Mark Wilson writes, "Despite the potential to develop as a supranational (across nations) system, the naming convention for cyberspace reinforces the existing geographic delimitation of space" (Wilson, 2001). This finding is in keeping with others who have suggested that the Internet, rather than transcending divisions among and within states, reproduces them, whether through its use for state promotion (Brunn and Cottle, 1997), through tendencies for one Web page's links to refer disproportionately to Web pages associated with the same host country (Halavais, 2000), or through the physical location of Internet infrastructure (Dodge and Kitchin, 2001). As communications scholar Milton Mueller notes, "By incorporating [ccTLDs] into the domain name space, [IANA administrators] inadvertently helped to reproduce the political geography of the *ancien régime* (ancient regime) in cyberspace" (Mueller, 2002).

Reconstituting the Nation

The story, however, is not so simple. The spread of ccTLDs and national-scale arenas on the Internet has not always meant that existing nation-states have replicated their authority in cyberspace. On the one hand, under the most recent revision of the process for designating ccTLD administrators, ICANN has begun to recognize the special role of governments. In 2000, a document issued by ICANN's Governmental Advisory Committee (GAC) noted that since previous Internet policy documents noted that it was the duty of ccTLD administrators to govern their domain in "the public interest" and since "the relevant government or public authority ultimately represents the interests of the people of the country or territory for which the ccTLD has been delegated," governments should be given a special role in the administration of national ccTLDs (ICANN, 2000).

Following this policy statement, ICANN developed a new system for appointing ccTLD managers wherein, although the authority to manage a ccTLD would still *formally* be granted by ICANN, the selection of the administrator is to made made by the country's national government, and ICANN would be obligated to reassign ccTLD administration if the government asserts that the manager has violated national laws (ICANN, 2002). Some countries' governments have simplified this process by appointing a government ministry as ccTLD administrator (for instance, in Vietnam, the administrator of the .VN ccTLD is the Vietnamese Government's Ministry of Post and Telematics), but in most cases ccTLD administrators remain private authorities, sanctioned by their national governments and in a sense representing the national scale, but reporting directly to a nongovernmental global authority.

The complexities surrounding the construction of the national scale on the Internet is further complicated when one looks beyond the rules for who can *administer* a ccTLD to the rules for who can *register* with a ccTLD. Some ccTLD administrators have attempted to use the ccTLD to replicate the national-scale community of the country that the ccTLD represents. For instance, a number of ccTLDs have established rules that forbid one from obtaining a domain name ending with that country's ccTLD unless one has some genuine affiliation with the nation (typically as a citizen, resident alien, or incorporated business).

Nonetheless, according to one survey of the rules for 159 ccTLD registries, only 69 registries have any "local presence" requirement; in the remaining 90 ccTLD registries, membership in the "nation" is available to anyone who wishes to use the name of the nation to construct a national-scale identity or build a national-scale community (To the Point, 2005).

In some cases, emigrants use the national space of the Internet to reproduce the material nation to which they are no longer territorially connected. Emigrants thus use Internet chat rooms, listservs, and websites to find spouses, procure ethnic foods and religious supplies, and obtain educational material that enable them to transmit cultural traditions to their children. Exile groups seeking to transform the nation and its government use the national-scale Internet networks to reconstitute the territorial nation-state to which they wish to return. In some cases, national-scale spaces of the Internet are being claimed as a means of constructing new material nation-states, as in the case of the Internet-based network of exiles seeking to create an independent Tamil state in present-day Sri Lanka (Tekwani, 2003).

In other cases, the new national-scale community that is being built around a ccTLD has very little connection with the "real" nation to which the ccTLD was intended to refer. For instance, the administrators of .PN – the ccTLD for Pitcairn Island, a British dependency in the Pacific with a population of approximately 50 – have seized upon their island's iconic role in *Mutiny on the Bounty* to sell virtual citizenship in a nation of mutineers (Steinberg and McDowell, 2003). Internet surfers from around the world can live their dreams of escape to this fabled island by purchasing a .PN domain name. This new nation of .PN has very little connection with the lives of the actual 50 Pitcairners (who do not even have 24-hour telephone service, let alone Internet access). However, its members are forming a community of like-minded people who claim a shared identity based on their connection to a place (the historic Pitcairn Island portrayed on the .PN Web site) and its ruling authority (the .PN administrators), and thus they are forming a sort of parallel Pitcairn (or .PN) nation.

Although this new "nation" of .PN appears to be forming at the national scale, one could argue that it is really a local-scale formation, since the members of the .PN nation are individuals who interact with each other in a specific place (albeit the virtual place of their imagined Pitcairn Island). Conversely, one also could argue that .PN is a global-scale phenomenon, since its members come from around the world. The story of .PN reveals the ambiguity of the concept of a nation (and, consequently, the national scale) since practically any grouping can choose to define itself as a nation (and, conversely, nationhood can just as easily be denied, as is often argued by governments that are opposing nationalist movements within their country's borders).

And yet, one should not immediately dismiss the possibility that entities like the ".PN Nation" are, in fact, national-scale institutions that impact and are impacted by the material nations and their dominant institutions: nation-states. Over time, if .PN were to successfully attract thousands of registrants, it would be likely that the rulers of the physical

Pitcairn Island would begin shaping policy to fit the image portrayed (and sought after) by .PN subscribers. In this case, who is to say which Pitcairn is imaginary and which is real. Arguably, both the material and the virtual versions of the Pitcairn nation would be real entities at the national scale, although they would be connecting to the local and global scales in very different ways.

This may be happening in the case of Kazakhstan (.KZ), a country in Central Asia with a much larger population than Pitcairn. Kazakhstan is the homeland of Borat, the fictional character portrayed by English comedian Sacha Baron Cohen, whose satire largely depends on portraying his fellow Kazakhs as ignorant boors. To construct Borat as a *national* Kazakh figure, Cohen established his Web site at www.borat.kz. The Kazakh government responded by shutting down Borat's Web site, so that "he can't badmouth Kazakhstan under the .KZ domain name" (Haines, 2005). Both sides in the dispute were recognizing that the Internet was a *national-scale* arena. The only question was who had the right to use the Internet to define (and promote images of) the nation of Kazakhstan. With Borat's increased exposure outside Kazakhstan, however, the Kazakh government has softened its stance toward Borat and is now hoping to enlist him as a spokesperson for the real Kazakhstan. It seems likely, however, that any Kazakhstan portrayed by Borat would refer as much to Borat's make-believe Kazakhstan as to the territory populated by real Kazakhs. Thus, as in Pitcairn, global media like the Internet may be working to construct, as well as to represent, the nation, even as it *appears* to jump over the national scale as it joins local consumers of information through global connections.

Glossary

ccTLDs: Country-coded top-level domains, the two-letter codes that designate the country in the Internet.

gTLDs: Generic top-level domains, extensions such as .com or .edu that can be applied to any space.

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Lesson Plan on Scale in Cyberspace

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Scope and Sequence

1. Nature and Perspectives
2. Industrialization and Economic Development
3. Cities and Urban Land Use
4. Agriculture and Rural Land Use
5. Population and Migration
6. Cultural Patterns and Processes
7. Political Organization of Space

The rationale behind this scope and sequence is that I believe everything in the modern world (1500–present) is, and has been, motivated by the acquisition of resources. If used correctly, this leads to personal wealth, which in turn leads to individual power that can be used to influence local, regional, and/or global politics. The ability of a country (especially its infrastructure) to become more developed, increase and manage its urbanization, advance its technological knowledge so as to increase its food production and distribution, manage its population growth, and advance its cultural and political influence globally is all predicated on the country's ability to be successful in its economic development.

Having said that, I spiral the concepts taught throughout the curriculum. I cover the concepts of place and scale in each of the seven parts of the AP Human Geography curriculum. Once we define and explain transnational corporations, we see how they play a role in various global cities, in agribusiness, and in the cultural character of a particular country, and how they influence globalization. Concluding our study of human geography with the "political organization of space" allows me to summarize many concepts previously taught and tie everything together. For example, within the concept of "nation-state," we can define "clearly defined territories," understand what "substantial populations" are, and analyze the "emotional ties" that bind groups of people into being a nation.

Vocabulary

Place: A specific setting with distinctive physical, social, and cultural attributes[1]; a unique location of everything on Earth[2]

Scale: Each place is unique yet at the same time similar to other places[2]; how an individual phenomena (i.e., local) can influence other phenomena (i.e., global)[3]

Transnational corporation: A company that conducts research, operates factories, and sells products in many countries, not just where its headquarters or shareholders are located[2]

Multinationals: Internationally active corporations that can strongly influence the economic and political affairs of many countries they operate in[3]

Nation-State: A clearly defined territory with a substantial population with a certain measure of power that considers itself a nation that has emotional ties to its state's institutions and ideology[4]

Questions

(Specific to the reading)

1. What is a blog? Do you use or participate in a blog? Why or why not? How is it helpful or enjoyable?

2. List the seven generic top-level domain names (gTLD). Create two new categories and explain why they should have their own designation.

(Conceptually linked to the reading)

1. What is the specific Web site to contact or look at goods sold at Wal-Mart? What is the specific address to which you would send a written correspondence to Wal-Mart? Geographically speaking, how are the two similar or different? Is there a greater sense of who or what Wal-Mart is from one address versus the other? Why?

2. Compare the aesthetic value of any two Web sites of comparable businesses (e.g., Lowes and Home Depot, Nike and Converse, IBM and Xerox, etc.). Note the similarities and differences. What do you like/dislike about each? Based solely on the first page of each Web site, with which company would you most likely do business? Why?

3. Assume you live in a capitalist economic system and a democracy. Justify the need for your country to appoint you as the Government Minister for the country-code top-level domain names (ccTLDs). Explain the irony of this cabinet-level position in government in a capitalist economic system.

4. Explain how Wal-Mart and Nike are transnational corporations/multinationals and relate the similarities of those companies to the Internet performing like a transnational corporation (operating at different scales).

Assignment

1. Refresh the students' memories of the necessary terminology.
2. Preview Steinberg's discussion question and the six questions I've added.
3. Allow the students to read the article.
4. Discuss the very basic ideas and concepts of the article, but do not cover the aforementioned questions.
5. Students would be arranged in small groups, three to four per group maximum. The small groups should brainstorm answers to the questions.

6. In a large-group setting (whole class), allow each small group to reveal their answers to the questions in turn. (At this point, the students should be steering the class discussion, with the teacher only facilitating the discussion and clarifying incorrect answers.)

7. Once the students have shared their brainstorming and each student understands how the Internet can be seen at the local, regional, and global scales, have them write a response to the following prompt:

    How can the Internet support and/or destroy the concept of the modern day nation-state? Provide specific, real-life examples.

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