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HUMAN GEOGRAPHY

People, Place, and Culture

11TH EDITION

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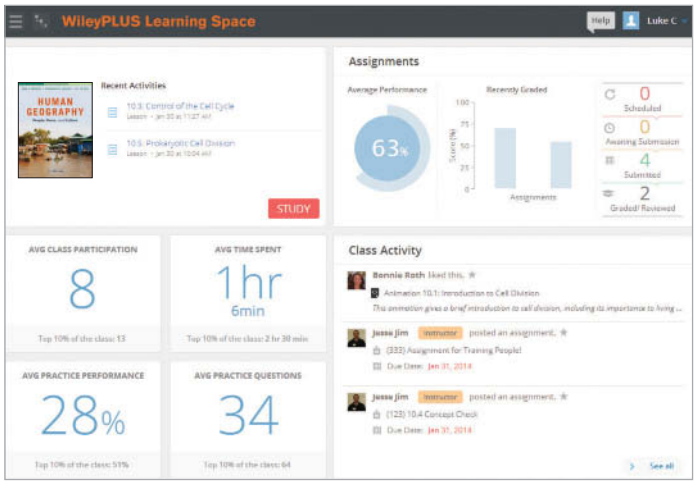

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PREFACE

The noted geographer Yi-Fu Tuan once said, "People make places." People create cultures, values, aesthetics, politics, economics, and more, and each of these affects and shapes places. Places do not exist in a vacuum, as places are constantly being changed from within and in the context of the broader world. The study of human geography constantly reminds us of how people shape their world and of how people and places vary across space.

People build homes and buildings, establish economic and political systems, interact with one other, construct cultures, and shape physical environments. In the process, they create and transform places. On the front cover, the floating village on the shores of Southeast Asia's largest fresh-water lake, the Tonlé Sap in Cambodia, represents an extraordinary human adaption to a lake that rises and falls by as much as eight meters (26 feet) between the wet and dry seasons. For more than a thousand years, people have lived in floating villages and in homes built on stilts, drawing their living by fishing in the lake.

Just a short drive north, more than 1.5 million tourists visit the temple of Angkor Wat each year. Built by the Khmer Empire as a Hindu temple in the tenth century, designs on walls in the temple complex show people fishing in the Tonlé Sap. A later emperor converted to Buddhism and transformed Angkor Wat into a Buddhist temple. Empires shifted again, and the site of Angkor Wat was covered by forests by early 1500. When Europeans came to Southeast Asia in the centuries after 1500, some heard about the massive temple complex and followed local guides through the dense forest to the site.

In the 1990s Cambodia emerged from a period of great political and social upheaval, and the country was opened to tourists who began to flock to see Angkor Wat. The nearby city of Siem Reap now houses more than 170 hotels. The 30 most luxurious are in particularly high demand as Westerners, Japanese, South Koreans, and a growing number of Chinese tour the region. Every morning, tourists come in droves to witness the remarkable sunrise at Angkor Wat, each trying to capture the perfect photo, as the back cover illustrates. After visiting the temple, some choose to journey south to the shores of Tonlé Sap, where they now find children in floating villages selling trinkets and holding snakes in the hope of being photographed for money.

Tourism is an aspect of globalization that is changing places in dramatic ways. In the Eleventh Edition of *Human Geography*: *People, Place, and Culture*, students will learn to appreciate the pace of change unfolding in the wake of globalization and to expand their understanding of the causes and consequences of the deepening interconnections among places.

Through this course in human geography, and with the help of this book, students will learn to appreciate the types of changes taking place and to think critically about what they see, read, and hear about their world. Globalization factors heavily into the many ways people influence places. Globalization is a set of processes that flow and pulsate across and through country boundaries with varying outcomes in different places and across scales. Improvements in transportation and communication allow ideas and people to move quickly, creating an environment suitable for change.

Our goals in writing the Eleventh Edition of *Human Geography*: *People, Place, and Culture* were, first, to help students appreciate the diversity of the planet and the role people play in shaping that diversity; second, to provide context for the issues we address so that students can better understand their world; third, to give students the tools to grapple with the complexities of globalization; and fourth, to help students think geographically and critically about their world.

Sadly, Harm de Blij, the book's originator, died shortly before we began work on this edition. We experienced a great sense of loss in planning, researching, and writing without him, but we were buoyed by the extensive collaborations we had with Harm through the years. One of us (Erin) studied with Harm as an undergraduate and became a co-author of this book beginning with the Eighth Edition. The other of us (Alec) became a co-author on the Sixth Edition and worked with Harm on a variety of professional matters. We both had the opportunity to soak up Harm's extraordinary passion for geography, and we continue to draw inspiration from someone who was truly a master of his craft. We dedicate this edition to Harm.

ADVANCED PLACEMENT® HUMAN GEOGRAPHY

In the late 1990s, co-author Alexander B. Murphy led the campaign to add human geography to the College Board's Advanced Placement® (AP) Program. *Human Geography*: *People, Place and Culture* and John Wiley & Sons have supported students and instructors in AP® Human Geography since the very beginning by offering high-quality content and pedagogy that help teachers teach and students learn the concepts, ideas, and terms that they need to perform at the college level. With the Eleventh Edition of *Human Geography*, we continue that legacy of support by offering a special AP® version of the book, along with a revised AP® Student Study Guide and new student resources on the student companion website.

Students who are taking AP® Human Geography can use the "Thinking Geographically" questions found at the end of each section in each chapter as practice for the Free Response Questions (FRQs) on the AP® exam. The 2013 AP® Human Geography exam asked students to compare and contrast Rostow and Wallerstein's theories, which was the second "Thinking

Geographically" question in Chapter 10 in the Tenth Edition of *Human Geography*: *People, Place, and Culture*. Use the "Thinking Geographically" questions to test whether you can define key concepts and models, compare and contrast related concepts and similar models, and use specific examples or case studies to demonstrate the concepts and models. We wrote more detailed captions for maps and photographs in the Eleventh Edition to help students learn to see patterns on maps and recognize geographic concepts in photographs. Several of the captions ask readers to compare and contrast maps, which will help prepare students for FRQs and multiple-choice questions (MCQs) on the AP® exam. Key geographic concepts are defined and explained with examples and context throughout the book, which will help students understand rather than simply memorize geographic concepts that appear in the MCQs.

With the needs of AP® instructors and teachers in mind, we have highlighted a few key issues that are often emphasized on AP® exams. We expanded our coverage of basic concepts such as central place theory. We developed boxes setting forth classic geographic approaches to understanding the political organization of space and the spatial organization of cities, and we evaluate the relevance of these approaches today. We brought in new material on subjects that receive attention in AP® Human Geography outlines, including human trafficking and refugees, threats to human health, biotechnology, genetically modified organisms, impacts of new extractive industries, fair trade movement, development of the galactic city, role of social networks and opinion leaders in the diffusion of popular culture, global sourcing and flexible production of goods, location theory, first mover advantages in new technologies, and interface areas in religion (including a case study on Boko Haram in Nigeria). We also included new graphics that help illustrate core geographic concepts and ideas. Our 3-D models of the spatial organization of cities in in Southeast Asia, Latin America, and Subsaharan Africa will help students quickly grasp the types of urban arrangements that are characteristic of different world regions. Our maps and case studies of Ikea and Nike in the production and distribution of goods will help students better understand theories in economic geography. To learn more about the AP® Edition of *Human Geography*: *People, Place and Culture 11th Edition,* please contact your Wiley High School Solutions representative at WileyHSAP@Wiley.com or 1-855-827-4630.

NEW IN THE ELEVENTH EDITION

In writing the Eleventh Edition of *Human Geography*: *People, Place, and Culture*, we developed a new layout in an effort to promote the book's visual appeal and to facilitate the integration of text, photos, and illustrations. Our goals are to help students understand the role people play in shaping the world, to provide geographic context to the issues we discuss, to teach students to think geographically and critically, and to explain how the complexities of globalization are changing the planet. As in past editions, we drew from our own field experiences as well as the research and fieldwork of hundreds of others in an effort to enrich the text.

The Eleventh Edition of *Human Geography* includes significant revision to and reorganization of the material on population (Chapter 2), popular culture (Chapter 4), political geography (Chapter 8), urban geography (Chapter 9), agriculture (Chapter 11), industry and services (Chapter 12), and the humanized environment (Chapter 13). We also updated examples throughout the book to relate to the existing body of knowledge many college students have before taking human geography. Drawing from current research in human geography, we expanded the number of terms and concepts covered to include the young and old-age dependency ratios, the proto-Eurasiatic linguistic hypothesis, galactic cities, urbicide, economies of scale, first mover advantage, location theory, global sourcing, flexible production, global social networks, and opinion leaders.

The field notes in the Eleventh Edition provide context and help the reader learn to think geographically. As in the past, each chapter in this edition starts with an *opening field note*, written by one of us, which describes an experience from the field and pulls the reader into the chapter. Several of the opening field notes in the Eleventh Edition are new.

Each chapter also includes one or more *author field notes*, in addition to the opening field note. The author field notes serve as models of how to think geographically. We took a significant majority of the approximately 200 photographs in this edition. In addition to the author field notes, we include a number of *guest field notes* written by geographers who have spent time in the field, researching a place that they profile. All guest field notes include a photograph and a paragraph focusing on how the guest field note author's observations in the field influenced his or her research.

In the Eleventh Edition, we continue to offer "Key Questions" and "Thinking Geographically" prompts to promote learning. The Key Questions are listed after the opening field note of each chapter and serve as the outline for the chapter. After each Key Question is answered in the chapter, the reader will find a Thinking Geographically prompt. These prompts ask the reader to apply a geographic concept to a real-life example. Readers who complete the Thinking Geographically prompts will learn to think geographically and to think critically. Instructors can also use the Thinking Geographically prompts as lecture launchers and as the basis for class discussions.

THE TEACHING AND LEARNING PACKAGE

The Eleventh Edition of *Human Geography*: *People, Place, and Culture* is supported by a comprehensive supplements package that includes an extensive selection of print, visual, and electronic materials.

Resources That Help Teachers Teach

Geography On-Location Videos. Because of their enduring popularity, we have digitized many of the videos from the original series. This rich collection of original and relevant footage was taken during H. J. de Blij's travels. The videos cover a wide range of themes and are available on the companion websites.

The *Human Geography: People, Place, and Culture* Instructor Companion Website. This comprehensive website includes numerous resources to help you enhance your current presentations, create new presentations, and employ our premade PowerPoint presentations. Resources include the following:

- **Image Gallery.** We provide online electronic files for the line illustrations and maps in the book, which the instructor can customize for presenting in class.
- A complete collection of **PowerPoint presentations.** These presentations are available in beautifully rendered, four-color format, and images are sized and edited for maximum effectiveness in large lecture halls. The high-resolution photos, maps, and figures provide a set of strong, clear images that are ready to be projected in the classroom.
- A comprehensive **Test Bank** includes multiple-choice, fill-in-the-blank, matching, and essay questions. The Test Bank is available on the secure Instructor's website as electronic files and can be saved into all major word-processing programs.
- A comprehensive collection of **animations and videos**.
- **ConceptCaching.com** is an online collection of photographs that explores places, regions, people, and their activities. Photographs, GPS coordinates, and explanations of core geographic concepts are "cached" for viewing by professors and students alike. Professors can access the images or submit their own by visiting the website.

Wiley Faculty Network. This peer-to-peer network of faculty is ready to support your use of online course management tools and discipline-specific software/learning systems in the classroom. The Wiley Faculty Network will help you apply innovative classroom techniques, implement software packages, and tailor the technology experience to the needs of each individual class, and will provide you with virtual training sessions led by faculty for faculty.

Course Management. Online course management assets are available to accompany the Eleventh Edition of *Human Geography*: *People, Place, and Culture*.

Resources That Help Students Learn

Student Companion Website. The easy-to-use and student-focused website helps reinforce and illustrate key geographic concepts. It also provides interactive media content to prepare for tests. This website provides additional resources to complement the book and enhance student understanding of geography:

- **Videos** provide a first-hand look at life in other parts of the world.
- **Map Quizzes** help students master the place-names that are building blocks for their success in this course. Three game-formatted place-name activities are provided for each chapter.
- **Chapter Review Quizzes** provide immediate feedback to true/false, multiple-choice, and short-answer questions.
- **Annotated Web Links** put useful electronic resources into context.
- **Area and Demographic Data** are provided for every country and world region.
- **ConceptCaching.com** is an online collection of photographs that explores places, regions, people, and their activities. Photographs, GPS coordinates, and explanations of core geographic concepts are "cached" for viewing by professors and students alike. Professors can access the images or submit their own by visiting the website.

ACKNOWLEDGMENTS

In preparing the Eleventh Edition of **Human Geography**, we benefited immensely from the advice and assistance of many of our colleagues in geography. We thank AP Human Geography teachers, professors, instructors, and students from around the country who emailed us questions and gave us suggestions. Some told us of their experiences using other editions, and others provided insightful comments on individual chapters. The list that follows acknowledges their support, but it cannot begin to measure our gratitude for all of the ways they helped shape this book:

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In the Eleventh Edition, several of our colleagues in geography provided guest field notes. The stories these colleagues tell and the brilliant photos they provide will help students better appreciate the role of fieldwork in geographic research:

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We thank Erin's writing mentor, David Wishart of the University of Nebraska-Lincoln, whose suggestions are found in many new topics discussed in the Eleventh Edition. We thank Paul Gray and Greg Sherwin, both AP Human Geography teachers, whose constructive reviews and feedback helped us plan portions of the content and the mapping program for this edition. Erin appreciates the support and ideas shared by geography educators at the National Council for Geographic Education Conference, as their passion for teaching students and their excitement for the field of human geography inspired her to find new ways to explain several complicated geographic concepts in the Eleventh Edition. Erin also thanks Tino Mendez for his unwavering support and encouragement and Julie Backous for her organizational skills and willingness to help. This edition also benefited greatly from research assistance and editorial input provided by Anna Moore, a doctoral student in geography at the University of Oregon, and by Richard Murphy, Alec's older son.

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Erin H. Fouberg
Aberdeen, South Dakota

Alexander B. Murphy
Eugene, Oregon

ABOUT THE AUTHORS

Photograph by Robert Fouberg.

ERIN HOGAN FOUBERG grew up in eastern South Dakota. She moved to Washington, D.C., to attend Georgetown University's School of Foreign Service, where she took a class in Human Geography from Harm de Blij. At Georgetown, Erin found her International Relations classes lacking in context and discovered a keen interest in political geography. She earned her master's and Ph.D. at the University of Nebraska-Lincoln (1997). After graduating, Dr. Fouberg taught for several years at the University of Mary Washington in Fredericksburg, Virginia, where the graduating class of 2001 bestowed on her the Mary Pinschmidt Award, given to the faculty member who made the biggest impact on their lives.

Dr. Fouberg is Professor of Geography and Director of the Honors Program at Northern State University in Aberdeen, South Dakota, where she won the Outstanding Faculty Award in 2011. Her research and publications focus on the governance and sovereignty of American Indian tribes, geography education, and the geography of elections. Professor Fouberg served as Vice President of Publications and Products of the National Council for Geographic Education. Dr. Fouberg co-authors *Understanding World Regional Geography* with William G. Moseley, also published by Wiley. She is active in her community, serving leadership roles on the soccer board, PTA, and fundraising campaigns for children's charities. She enjoys traveling, reading, golfing, and watching athletic and theater events at Northern State.

Photograph by Jack Liu.

ALEC MURPHY grew up in the western United States, but he spent several of his early years in Europe and Japan. He obtained his undergraduate degree at Yale University, studied law at the Columbia University School of Law, practiced law for a short time in Chicago, and then pursued a doctoral degree in geography (Ph.D. University of Chicago, 1987). After graduating, Dr. Murphy joined the faculty of the University of Oregon, where he is now Professor of Geography and holder of the James F. and Shirley K. Rippey Chair in Liberal Arts and Sciences. Professor Murphy is a widely published scholar in the fields of political, cultural, and environmental geography. His work has been supported by the National Science Foundation, the National Endowment for the Humanities, the Rockefeller Foundation, and the Fulbright-Hays foreign fellowship program.

Professor Murphy served as the President of the Association of American Geographers in 2003–2004. He is currently Senior Vice President of the American Geographical Society. In the late 1990s, he led the effort to add geography to the College Board's Advanced Placement Program. He recently chaired a National Academy of Sciences study charged with identifying strategic directions for the geographical sciences. In 2014 he received the Association of American Geographers' highest honor, its Lifetime Achievement Award. His interests include hiking, skiing, camping, music, and of course exploring the diverse places that make up our planet.

Photograph by S. Baker for the National Council on Teacher Retirement.

HARM DE BLIJ received his early schooling in Europe, his college education in Africa, and his higher degrees in the United States (Ph.D. Northwestern, 1959). He published more than 30 books and over 100 articles, and received five honorary degrees. Several of his books were translated into foreign languages.

Dr. de Blij held the position of John A. Hannah Professor of Geography at Michigan State University. He also held the George Landegger Chair at Georgetown University's School of Foreign Service, the John Deaver Drinko Chair of Geography at Marshall University, and faculty positions at the Colorado School of Mines and the University of Miami. He served as the Geography Editor on ABC-TV's "Good Morning America" program for seven years and later served as Geography Analyst for NBC News. He was for more than 20 years a member of the National Geographic Society's Committee for Research and Exploration and was the founding editor of its scholarly journal, *National Geographic Research*. In recognition of his service, he became an honorary lifetime member of the Society.

Professor de Blij was a renaissance man. He was a soccer fan, an avid wine collector, an amateur violinist, and an inveterate traveler.

We dedicate this book to

Harm de Blij:

colleague, friend, mentor,

and indefatigable

champion of geography

BRIEF CONTENTS

CONTENTS

CHAPTER

1 INTRODUCTION TO HUMAN GEOGRAPHY

FIELD NOTE

Awakening to World Hunger

Dragging myself out of bed for a 9:00 A.M. lecture, I decide I need to make a stop at Starbucks. "Grande coffee of the day, please, and leave room for cream." I rub my eyes and look at the sign to see where my coffee was grown. Kenya. Ironically, I am about to lecture on Kenya's coffee plantations. Just the wake-up call I need.

When I visited Kenya in eastern Africa, I drove from Masai Mara to Kericho and I noticed that nearly all of the agricultural fields I could see were planted with coffee or tea (Fig. 1.1). I also saw the poor of Kenya, clearly hungry, living in substandard housing. I questioned, "Why do farmers in Kenya grow coffee and tea when they could grow food to feed the hungry?" Trying to answer such a question sheds light on the complexities of globalization. In a globalized world, connections are many and simple answers are few.

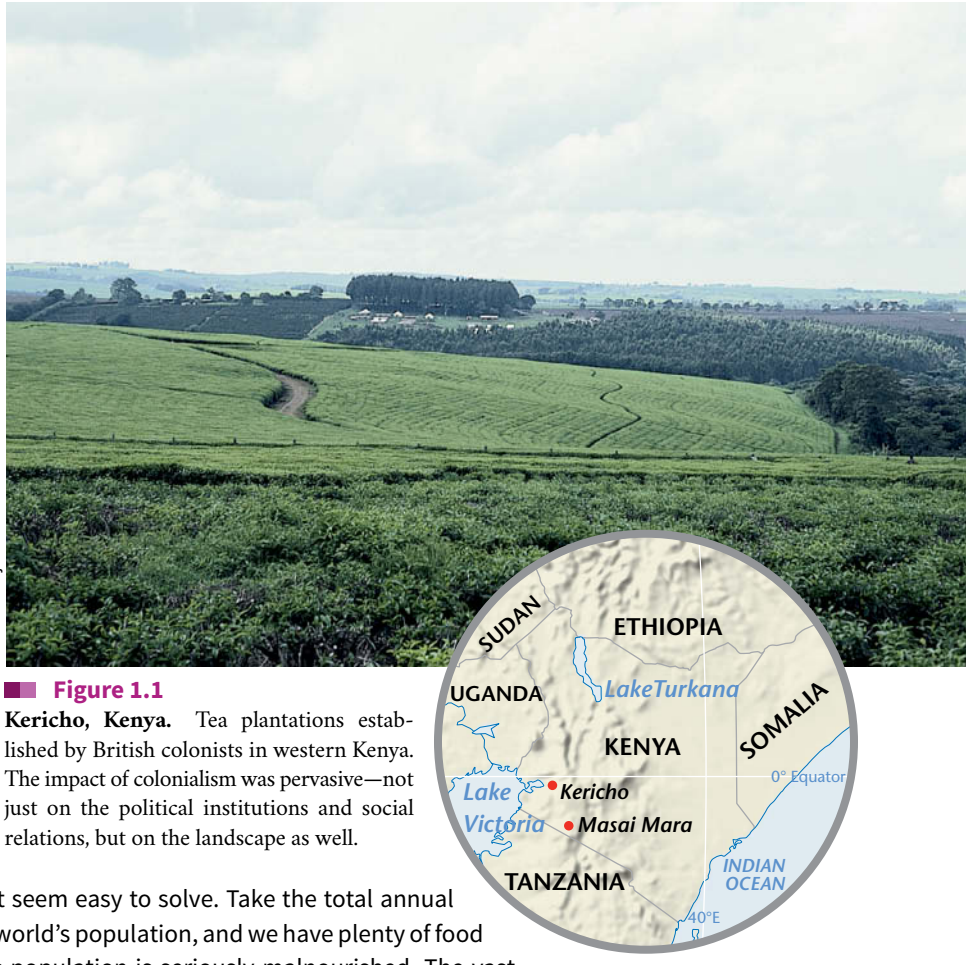

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Figure 1.1
Kericho, Kenya. Tea plantations established by British colonists in western Kenya. The impact of colonialism was pervasive—not just on the political institutions and social relations, but on the landscape as well.

On its face, such a huge problem might seem easy to solve. Take the total annual food production in the world, divide it by the world's population, and we have plenty of food for everyone. Yet one-seventh of the world's population is seriously malnourished. The vast majority of the 1 billion malnourished people on Earth are women and children, who have little money and even less power.

Figure 1.2 shows how food consumption is currently distributed—unevenly. Comparing Figure 1.2 with Figure 1.3 shows that the wealthier countries also are the best fed and that Subsaharan Africa (the part of Africa south of the Sahara Desert) is currently in the worst position, with numerous countries in the highest categories of hunger and malnourishment.

The major causes of malnourishment are poverty (inability to pay for food), the failure of food distribution systems, and cultural and political practices that favor some groups over others. Where food does reach the needy, its price may be unaffordable. Two billion people subsist

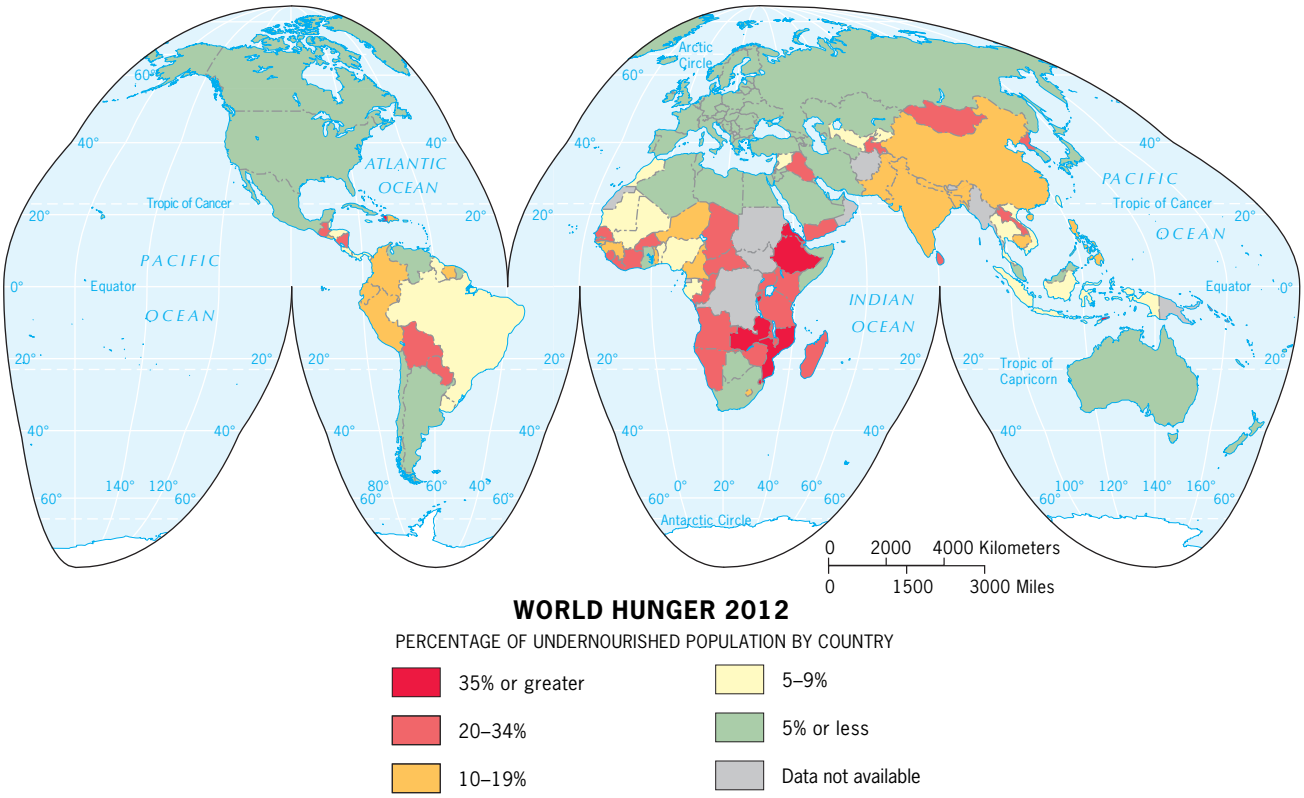


Figure 1.2

World Food Program Hunger Map, 2012. Classifications designate the proportion of the population malnourished. The World Food Program estimates that just under one billion people worldwide are malnourished. *Data from*: United Nations World Food Program 2012.

on the equivalent of two dollars a day, and many in the vast shantytowns encircling some of the world's largest cities must pay rent to landlords who own the plots on which their shacks are built. Too little is left for food, and it is the children who suffer most.

Is solving hunger as simple as each country growing enough food to feed its people? Do the best-fed countries have the most arable (farmable) land? Only 4 percent of Norway is arable land, and more than 70 percent of Bangladesh is arable land (Fig. 1.4). Despite this disparity, Norway is wealthy and well fed, whereas Bangladesh is poor and malnourished. Norway overcomes its inadequate food production by importing food. Bangladesh depends on rice as its staple crop, and the monsoon rains that flood two-thirds of the country each year during monsoon season are good for rice production, but they make survival a daily challenge for some.

If a poor country has a small proportion of arable land, does that destine its population to a lifetime of malnourishment? It depends on the place. Of all the land classified as arable, some is much more productive than others. For example, only 8 percent of Kenya's land is arable, but areas in the western highlands are some of the most productive agricultural land in the world. Do the Kenyans simply not produce enough food on their lands? Is that what accounts for their malnutrition rate of over 30 percent? No, hunger in Kenya depends much more on what it produces, who owns the land, and how Kenya is tied into the global economy.

Kenya's most productive lands, those in the western highlands, are owned by foreign coffee and tea corporations. Driving through the open, luxury-crop-covered slopes, I saw mostly Kenyan women working the plantations. The lowland plains are dotted by small farms, many of which have been subdivided to the point of making the land unviable. Here, an even higher proportion of the people working the lands are women, but the lands are registered to their husbands or sons because, by law, they cannot own them.

As I drove through the contrasting landscapes, I continued to question whether it would be better for the fertile highlands to carry food crops that could be consumed by the people in

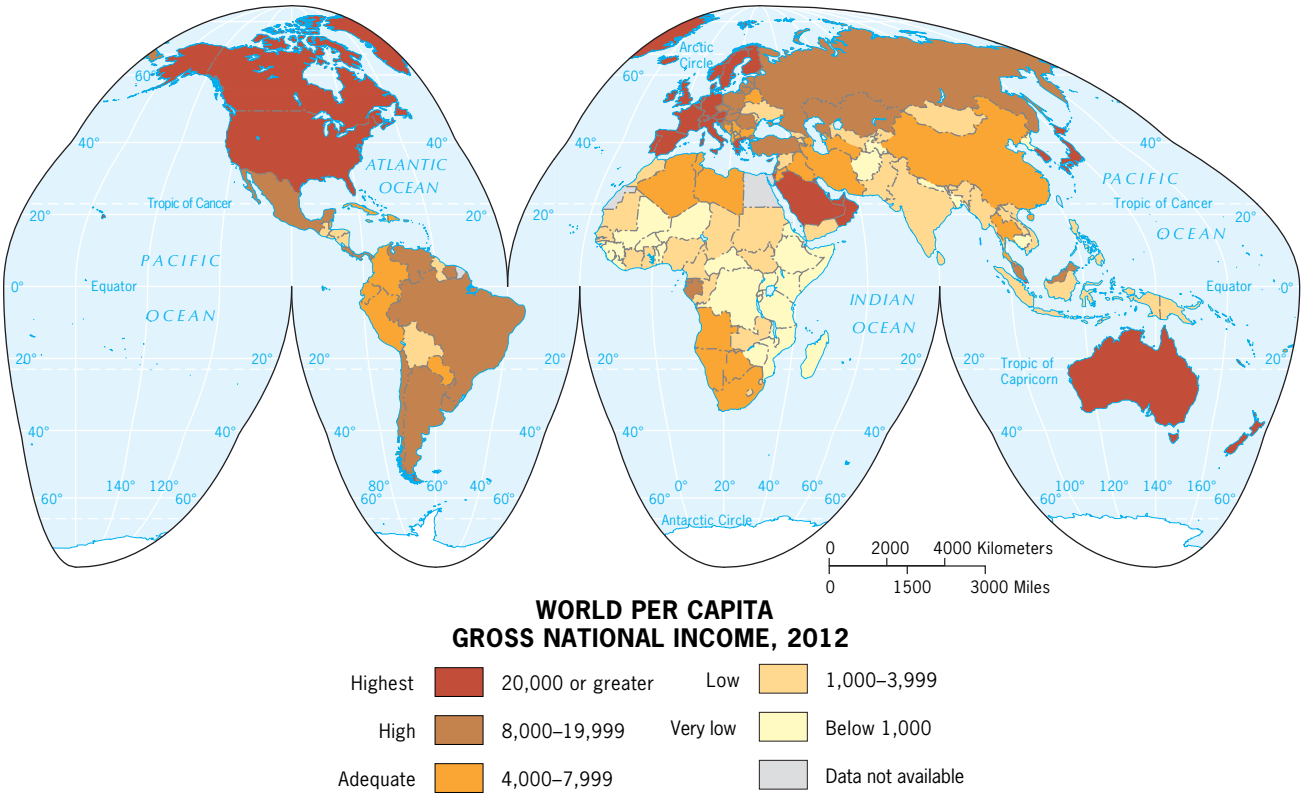


Figure 1.3

Per Capita Gross National Income (in U.S. Dollars) (GNI), 2012. From a socioeconomic standpoint, we live in an unequal world, but this map only shows the formal economy because the GNI per capita does not estimate the informal economy. Maps, like this, that shade each country a different color report data by country and tell us nothing about the variation within countries. *Data from*: World Bank, World Development Indicators, 2012.

Kenya. I drove to the tea processing center and talked to the manager, a member of the Kikuyu ethnic group, and asked him my question. He said that his country needed foreign income and that apart from tourism, exporting coffee and tea was the main opportunity for foreign income.

As part of an increasingly globalized economy, Kenya suffers from the complexities of globalization. With foreign corporations owning Kenya's best lands, a globalized economy that thrives on foreign income, tiny farms that are unproductive, and a gendered legal system that disenfranchises the agricultural labor force and disempowers the caregivers of the country's children, Kenya has multiple factors contributing to poverty and malnutrition in the country. In addition to these structural concerns, Kenyan agro-pastoralists, especially in the northeast, have suffered higher rates of famine since a drought began in the region in 2006. Agro-pastoralists raise crops and have livestock; therefore, they struggle against drought as well as livestock diseases and political conflict.

To solve one of the structural problems in Kenya raises another. If Kenyans converted the richest lands to cash crop production, how would the poor people be able to afford the crops? What would happen to the rest of Kenya's economy and the government itself if it lost the export revenue from tea and coffee? If Kenya lost its export revenue, how could the country pay loans it owes to global financial and development institutions?

Answering each of these questions requires geographic inquiry because the answers are rooted in the characteristics of places and the connections those places have to other places. Moreover, geographic **fieldwork** can provide tremendous insights into such questions. Geographers have a long tradition of fieldwork. They go out in the field and see what people are doing, they observe how people's actions and reactions vary across space, and they develop maps and other visualizations that help them situate and analyze what they see. We, the authors,

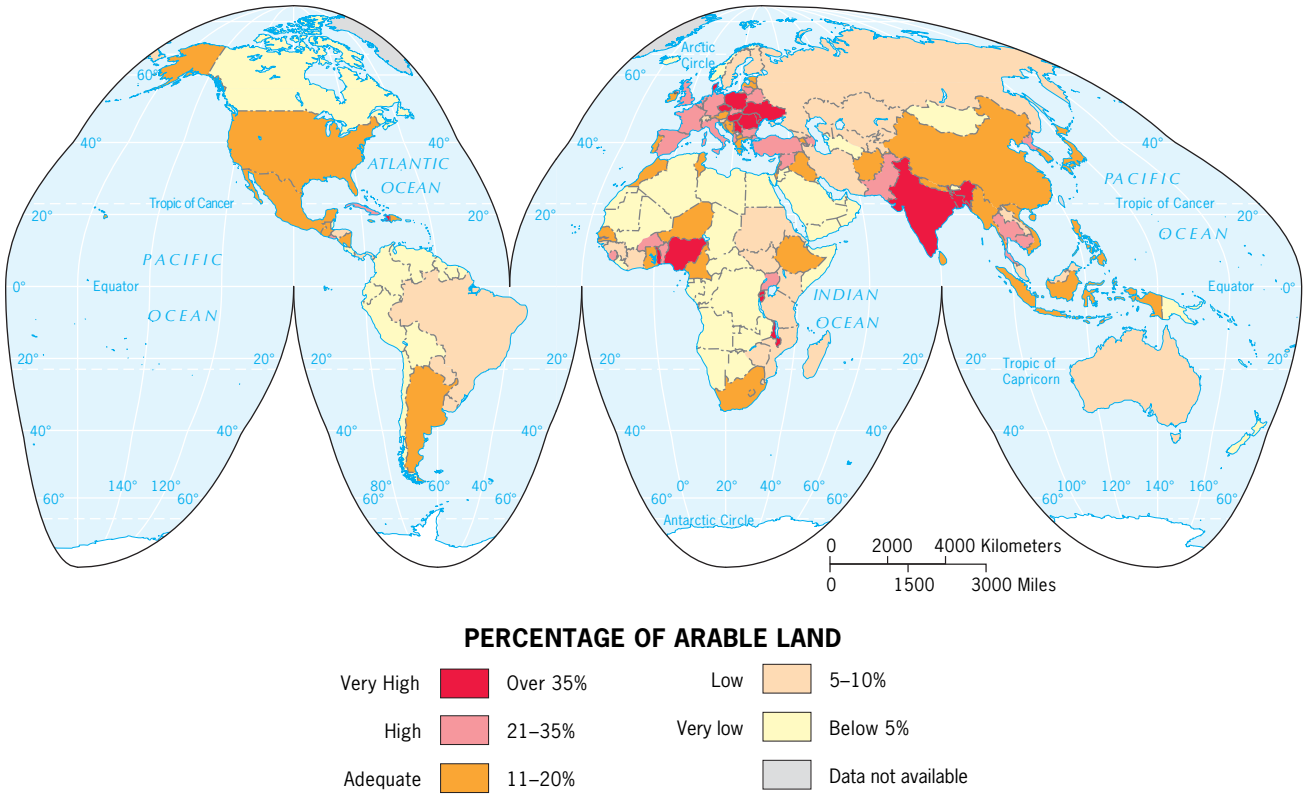


Figure 1.4

Percent of Land that is Arable (Farmable), 2008. Arable land is an important resource for countries, but in our globalized world, many countries with limited land suitable for agriculture are able to import the food they need to feed their population. *Data from*: United Nations Food and Agriculture Organization, 2011.

have countless field experiences, and we share many with you to help you understand the diversity of Earth's surface and show how global processes have unique outcomes in different places.

Solving major global problems such as hunger or HIV-AIDS is complicated in our interconnected world. Each solution has its own ramifications not only in one place, but also across regions, nations, and the world. Our goals in this book are to help you see the multitude of interconnections in our world, enable you to recognize the patterns of human geographic phenomena that shape the world, give you an appreciation for the uniqueness of place, and teach you to ask and answer your own geographic questions about this world we call home.

Key Questions FOR CHAPTER 1

1. What is human geography?
2. What are geographic questions?
3. Why do geographers use maps, and what do maps tell us?
4. Why are geographers concerned with scale and connectedness?
5. What are geographic concepts, and how are they used in answering geographic questions?

WHAT IS HUMAN GEOGRAPHY?

Human geographers study people and places. The field of **human geography** focuses on how people make places, how we organize space and society, how we interact with each other in places and across space, and how we make sense of others and ourselves in our localities, regions, and the world.

Advances in communication and transportation technologies are making places and people more interconnected. Only 100 years ago the fastest modes of transportation were the steamship, the railroad, and the horse and buggy. Today, people can cross the globe in a matter of days, with easy access to automobiles, high-speed railroads, airplanes, and ships.

Economic globalization and the rapid diffusion of elements of popular culture, including fashion and architecture, are making many people and places look more alike. Despite the push toward homogeneity, our world still encompasses a multitude of ways in which people identify themselves and others. The world consists of nearly 200 countries, a diversity of religions, thousands of languages, and a wide variety of settlement types, ranging from small villages to enormous global cities. All of these attributes come together in different ways around the globe to create a world of endlessly diverse places and people. Understanding and explaining this diversity is the mission of human geography.

Places all over the world are fundamentally affected by globalization. **Globalization** is a set of processes that are increasing interactions, deepening relationships, and accelerating interdependence across national borders. Globalization is also a set of outcomes that are felt from these global processes—outcomes that are unevenly distributed and differently manifested across the world.

All too often, discussions of globalization focus on the pull between the global, seen as a blanket covering the world, and the local, seen as a continuation of the traditional despite the blanket of globalization. Geographers are well placed to recognize globalization as something significantly more complex. Geographers employ the concept of "scale" to understand individual, local, regional, national, and global interrelationships. What happens at the global scale affects the local, but it also affects the individual, regional, and national, and similarly the processes at these scales influence the global. Reducing the world to "local" and "global" risks losing sight of the complexity that characterizes modern life. In this book, we study globalization, and as geographers we are sensitive to the fact that the same globalized process has different impacts in different places because no two places are the same. Moreover, whenever we look at something at one scale, we always try to think about how processes that exist at other scales may affect what we are looking at, and vice versa (see the discussion of scale later in this chapter).

Globalizing processes occur at the world scale; these processes bypass country borders and include global financial markets and global environmental change. However, the processes of globalization do not magically appear at the global scale: What happens at other scales (individual, local, regional, national) helps create the processes of globalization and shape the outcomes of globalization.

Some argue that the impacts of globalization are exaggerated, but as geographers Ron Johnston, Peter Taylor, and Michael Watts (2002) explain, "Whatever your opinion may be, any intellectual engagement with social change in the twenty-first century has to address this concept seriously, and assess its capacity to explain the world we currently inhabit." We integrate the concept of globalization into this textbook because processes at the global scale, processes that are not confined to local places or national borders, are clearly changing the human geography of the planet. At the same time, as we travel the world and continue to engage in fieldwork and research, we are constantly reminded of how different places and people are from one another—processes at the individual, local, regional, and national scales continue to change human geography and shape globalization.

No place on Earth is untouched by people. As people explore, travel, migrate, interact, play, live, and work, they make places. People organize themselves into communities, nations, and broader societal networks, establishing political, economic, religious, linguistic, and cultural systems that enable them to function in space. People adapt to, alter, manipulate, and cope with their physical geographic environment. No environment stands apart from human action. Each place we see is affected by and created by people, and each place reflects the culture of the people in that place over time.

Imagine and describe the most remote place on Earth you can think of 100 years ago. Now, describe how globalization has changed that place and how the people there continue to shape it and make it the place it is today.

WHAT ARE GEOGRAPHIC QUESTIONS?

Geographers study human phenomena, including language, religion, and identity, as well as physical phenomena, including landforms, climate, and environmental change. Geographers also examine the interactions between humans and environment. Human geography is the study of the spatial and material characteristics of the human-made places and people, and **physical geography** is the study of spatial and material characteristics of physical environment. Human and physical geographers adopt a similar perspective but focus on different phenomena.

Geographer Marvin Mikesell once gave a shorthand definition of geography as the "why of where." Why and how do things come together in certain places to produce particular outcomes? Why are some things found in certain places but not in others? How do the characteristics of particular places shape what happens? To what extent do things in one place influence those in other places? To these questions, we add "so what?" Why do differences across geographic space matter? What role does a place play in its region and in the

world, and what does that mean for people there and elsewhere? Questions like these are at the core of geographic inquiry—whether human or physical—and they are of critical importance in any effort to make sense of our world.

If geography deals with so many aspects of our world, ranging from people and places to coastlines and climates, what do the various facets of this wide-ranging discipline have in common? The answer lies in a perspective that both human and physical geographers bring to their studies: a spatial perspective. Whether they are human geographers or physical geographers, virtually all geographers are interested in the **spatial** arrangement of places and phenomena, how they are laid out, organized, and arranged on Earth, and how they appear on the landscape.

Mapping the **spatial distribution** of a phenomenon can be the first step to understanding it. By looking at a map of how something is distributed across space, a geographer can raise questions about how the arrangement came about, what processes create and sustain the particular distributions or **patterns**, and what relationships exist among different places and things.

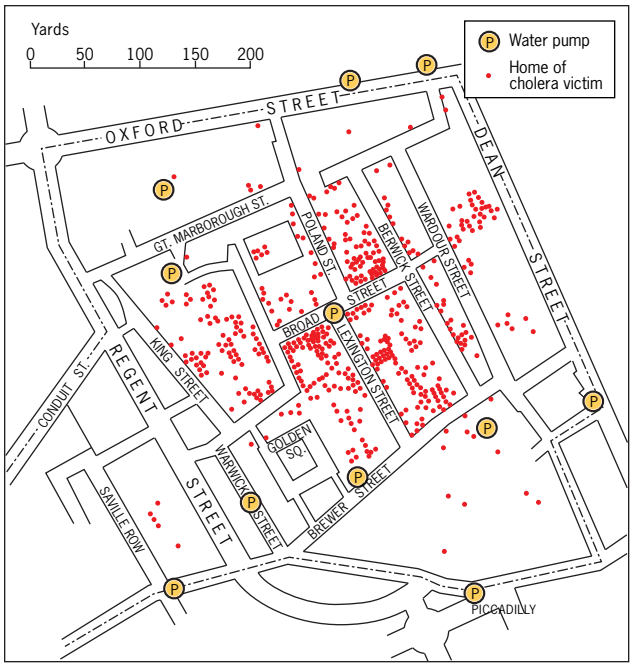
Maps in the Time of Cholera Pandemics

In **medical geography**, mapping the distribution of a disease is the first step to finding its cause. In 1854, Dr. John Snow, a noted anesthesiologist in London, mapped cases of cholera in London's Soho District.

Cholera is an ancient disease associated with diarrhea and dehydration. It was confined to India until the beginning of the nineteenth century. In 1816 it spread to China, Japan, East Africa, and Mediterranean Europe in the first of several **pandemics**, that is, worldwide outbreaks of the disease. This initial wave abated by 1823, but by then cholera was feared throughout the world, for it had killed people everywhere by the hundreds, even thousands. Death was horribly convulsive and would come in a matter of days, perhaps a week, and no one knew what caused the disease or how to avoid it.

Soon a second cholera pandemic struck. It lasted from 1826 to 1837, when cholera crossed the Atlantic and attacked North America. During the third pandemic, from 1842 to 1862, England was severely hit, and cholera again spread into North America.

When the pandemic that began in 1842 reached England in the 1850s, cholera swept through the Soho District of London. Dr. Snow mapped the Soho District, marking all the area's water pumps—from which people got their water supply for home use—with a P and marking the residence of each person who died from cholera with a dot (Fig. 1.5). Approximately 500 deaths occurred in Soho, and as the map took shape, Snow noticed that an especially large number of those deaths clustered around the water pump on Broad Street. At the doctor's request, city authorities removed the handle from the Broad Street pump, making it impossible to get water from it. The result was dramatic: Almost immediately the number of reported new cases fell to nearly zero, confirming Snow's theory about the role of water in the spread of cholera.



Adapted with permission from: L. D. Stamp, *The Geography of Life and Death*, Cornell University Press, 1964.

Figure 1.5

Deaths from Cholera in the Soho District of London, England, 1854. Dr. Snow mapped the deaths caused by cholera in the Soho neighborhood of London along with the locations of the water pumps and noticed a spatial correlation. Most of the deaths were clustered around a single water pump. As Dr. Snow's experience showed, maps are not just attractive or interesting representations of the world; they also help us understand and confront problems.

Dr. Snow and his colleagues advised people to boil their water, but it would be a long time before his advice reached all those who might be affected, and in any case many people simply did not have the ability to boil water or wash hands with soap.

Cholera has not been defeated completely, and in some ways the risks have been rising in recent years rather than falling (Fig. 1.6). People contract cholera by eating food or water contaminated with cholera bacteria. Cholera bacteria diffuse to broader areas because once one person has cholera it can be spread via his or her feces. In an impoverished area with no sanitary sewer system, the person's feces can easily contaminate the water supply. Even in places with sanitary sewer systems, cholera contamination occurs when rivers, which are typically the water supply, flood the sanitary sewer system.

We expect to find cholera in places that lack sanitary sewer systems and in places that are flood prone. In many of the teeming shantytowns of the growing cities of the developing world, and in some of the refugee camps of Africa and Asia, cholera remains a threat. Until the 1990s, major outbreaks remained few and limited. After remaining cholera-free for a half century, Europe had its first reappearance of cholera in Naples in 1972. In 2006, a cholera outbreak in Angola, in southern Africa, spread quickly throughout the country. When heavy rains came to West Africa in 2010, an outbreak of cholera killed 1500 people in Nigeria alone.

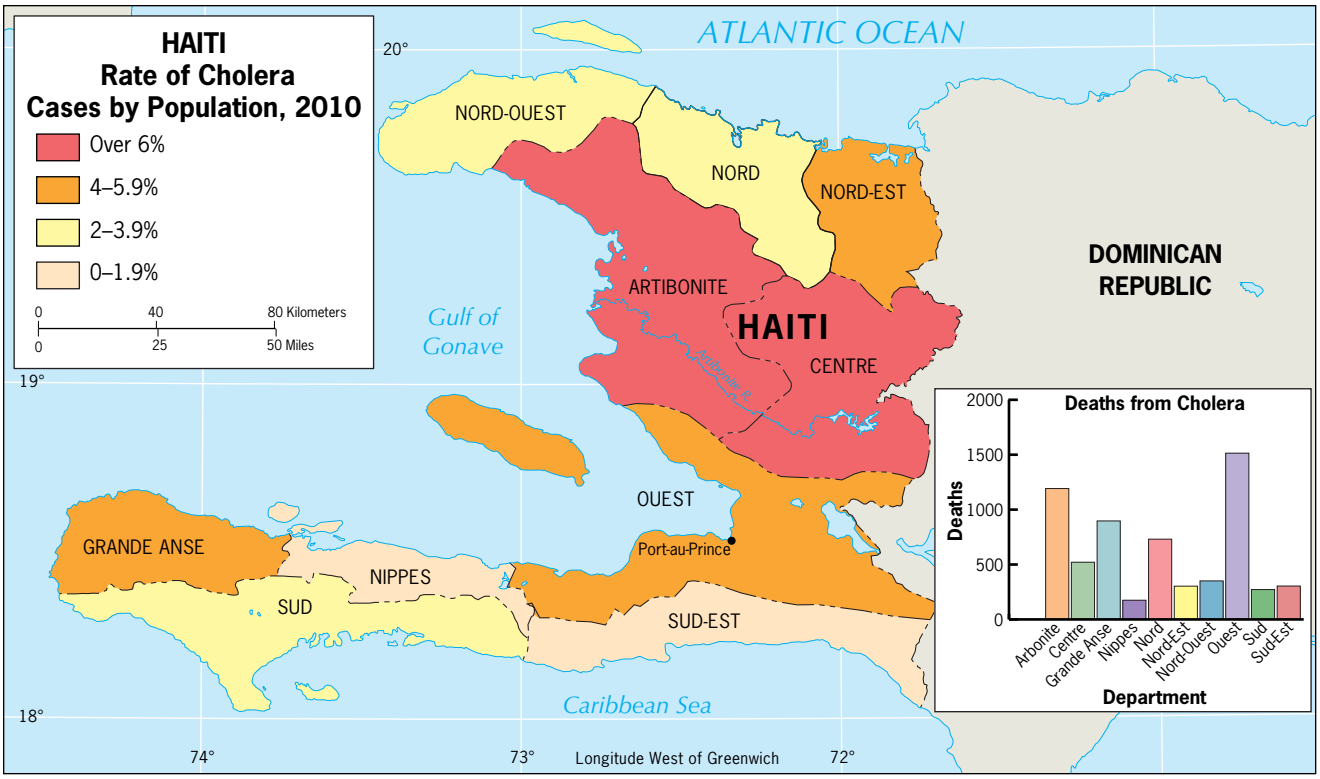


Figure 1.6

Cholera in Haiti, 2010. Artibonite and Centre departments were hit hard by a cholera outbreak in Haiti just after the 2010 earthquake, in part because the Artibonite River is contaminated by cholera bacteria and also because a large number of Haitians displaced from Port-au-Prince fled to camps in Artibonite and Centre. *Data from*: Centers for Disease Control, 2011. http://www.bt.cdc.gov/situationawareness/haiticholera/map_1.asp.

A cholera outbreak in the slums of Lima, Peru, in January 1991 became a fast-spreading **epidemic** (regional outbreak of a disease) that touched every country in the Americas, infected more than 1 million people, and killed over 10,000 in the region. The outbreak in Peru began when ocean waters warmed off the coast. Cholera bacteria live on plankton in the ocean, and the warming of the ocean allowed both the plankton and cholera to multiply. Fish ate the plankton, and people ate raw fish, thus bringing cholera to Peru.

In the slums of Peru, the disease diffused quickly. The slums are densely populated and lack a sanitary sewer system large enough to handle the waste of the population. An estimated 14 million Peruvians were infected with cholera, 350,000 were hospitalized, and 3500 Peruvians died during the outbreak in the 1990s. Peruvians who accessed health care received clean water, salts, and antibiotics, which combat the disease.

In January 2010, an earthquake that registered 7.0 on the Richter scale hit Haiti, near the capital of Port au Prince. Months later there was a cholera outbreak in the Artibonite region of Haiti (Fig. 1.6). Health officials are not certain exactly how cholera reached Haiti, but the disease diffused quickly through refugee camps and by October 2010 reached the capital city of Port au Prince. Scientists worry that the cholera outbreak in Haiti will be long lasting because the bacteria have contaminated the Artibonite River, which is the water supply for a large region. Although purifying water through boiling and thoroughly washing hands prevents the spread of cholera, water contaminated with cholera and a lack of access to soap abound in many neighborhoods of world cities. A vaccine exists, but its effectiveness is limited, and it is costly. Dr. Snow achieved a victory through the application of geographical reasoning, but the war against cholera is not yet won.

The fruits of geographical inquiry were lifesaving in Snow's case, and the example illustrates the general advantage that comes from looking at the geographic context of events and circumstances. Geographers want to understand how and why places are similar or different, why people do different things in different places, and how the relationship between people and the physical world varies across space.

The Spatial Perspective

Geographic literacy involves much more than memorizing places on a map. Place locations are to geography what dates are to history. History is not merely about memorizing dates. To understand history is to appreciate how events, circumstances, and ideas came together at particular times to produce certain outcomes. Knowledge of how events have developed over time is thought to be critical to understanding who we are and where we are going.

Understanding change across space is equally important to understanding change over time. The great German philosopher Immanuel Kant argued that we need disciplines focused not only on particular phenomena (such as economics and

sociology), but also on the perspectives of time (history) and space (geography). The disciplines of history and geography have intellectual cores defined by these perspectives rather than being confined to a subject matter.

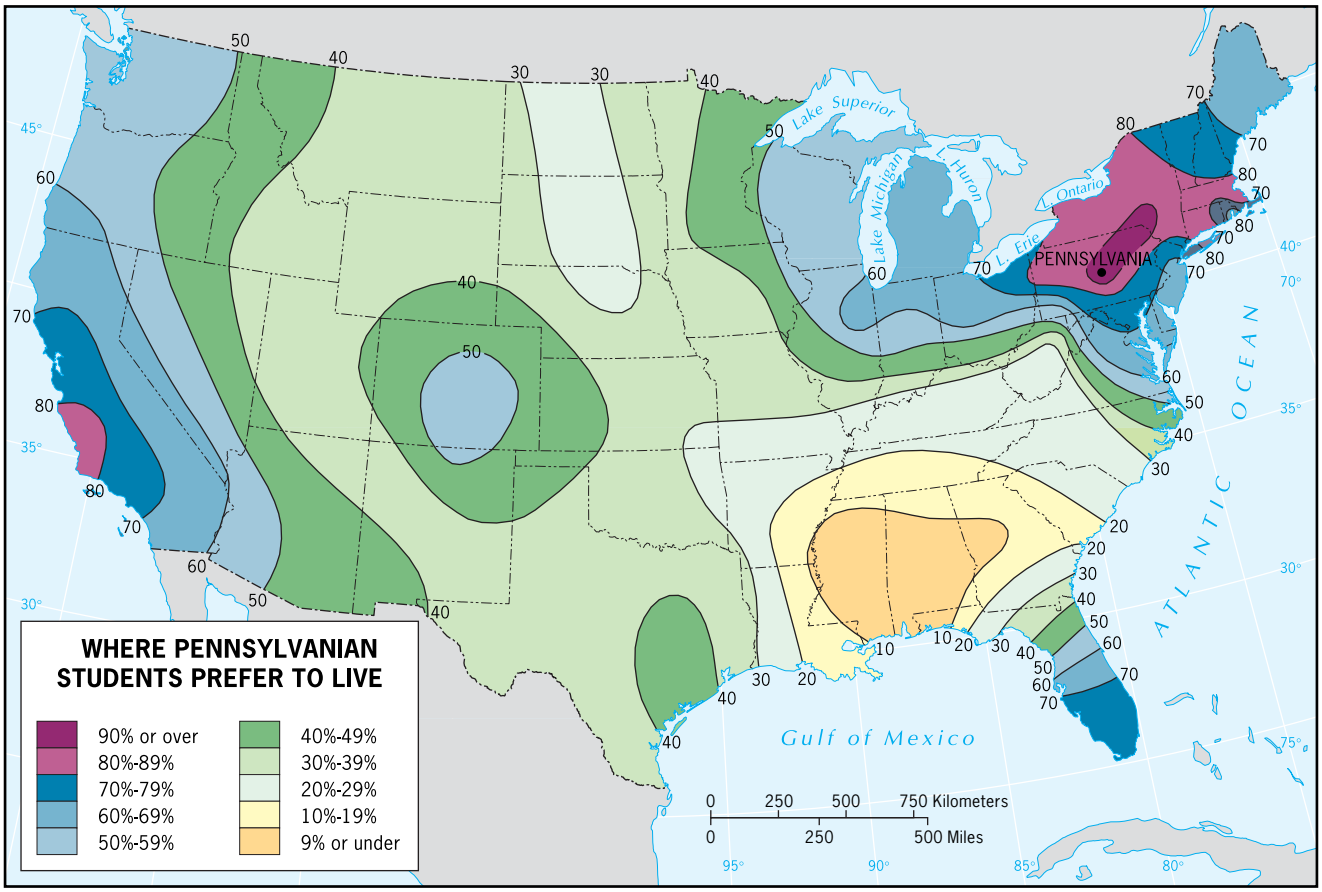
Human geographers employ a **spatial perspective** as they study a multitude of phenomena ranging from political elections and urban shantytowns to gay neighborhoods and folk music. To bring together the many subfields of human geography and to explain to nongeographers what geographers do, four major geographical organizations in the United States formed the Geography Educational National Implementation Project in the 1980s. The National Geographic Society published their findings in 1986, introducing the **five themes** of geography: location, human–environment interactions, region, place, and movement. The five themes are derived from geography's spatial concerns.

THE FIVE THEMES

The first theme, **location**, highlights how the geographical position of people and things on Earth's surface affects what happens and why. A concern with location underlies almost all geographical work, for location helps to establish the context within which events and processes are situated.

Some geographers develop elaborate (often quantitative) models describing the locational properties of particular phenomena—even predicting where things are likely to occur. Such undertakings have fostered an interest in **location theory**, an element of contemporary human geography that seeks answers to a wide range of questions, some of them theoretical, others highly practical: Why are villages, towns, and cities spaced the way they are? A geographer versed in location theory might assess whether a SuperTarget should be built downtown or in a suburb, given the characteristics of existing neighborhoods and new developments, the median income of people, the locations of other shopping areas, and the existing and future road system. Similarly, a geographer could determine the best location for a wildlife refuge, given existing wildlife habitats and migration patterns, human settlement patterns, land use, and road networks.

A spatial perspective invites consideration of the relationship among phenomena in individual places—including the relationship between humans and the physical world. The



Reprinted by permission of: P. R. Gould and R. White, *Mental Maps*. Harmondsworth: Penguin Books, 1986, pp. 55 and 58.

Figure 1.7

Desirable Places to Live. Where Pennsylvanian and Californian college students would prefer to live, based on questionnaires completed by college students. Proximity affects the impressions students have of other places—but so do stereotypes about certain parts of the country. How would this map look if we took a survey of Pennsylvanian and Californian college students now? Would the South be more desirable with the growth of Atlanta and other cities in the region? Would the availability of jobs in North Dakota's oil region make it a more desirable place to live?

second of the five themes concerns **human–environment interactions**. Why did the Army Corps of Engineers alter Florida's physical environment so drastically when it drained part of the Everglades? Have the changes in Florida's environment created an easier path of destruction for hurricanes? Why is the Army Corps of Engineers again changing the course of the Kissimmee River, and what does that mean for farmers around the river and residential developments in the south of Florida? Asking locational questions often means looking at the reciprocal relationship between humans and environments.

The third theme of geography is the **region**. Phenomena are not evenly distributed on Earth's surface. Instead, features tend to be concentrated in particular areas, which we call regions. Geographers use fieldwork and both quantitative and qualitative methods to develop insightful descriptions of different regions of the world. Novelist James Michener once wrote that whenever he started writing a new book, he first prepared himself by turning to books written by regional geographers about the area where the action was to occur. Understanding the regional geography of a place allows us to make sense of much of the information we have about places and digest new place-based information as well.

The fourth theme is represented by the seemingly simple word **place**. All places on the surface of Earth have unique human and physical characteristics, and one of the purposes of geography is to study the special character and meaning of places. People develop a **sense of place** by infusing a place with meaning and emotion, by remembering important events that occurred in a place, or by labeling a place with a certain character. Because we experience and give meaning to places, we can have a feeling of "home" when we are in a certain place.

We also develop **perceptions of places** where we have never been through books, movies, stories, and pictures. Geographers Peter Gould and Rodney White asked college students in California and Pennsylvania: "If you could move to any place of your choice, without any of the usual financial and other obstacles, where would you like to live?" Their responses showed a strong bias for their home region and revealed that students from both regions had negative perceptions of the South, Appalachia, the Great Plains, and Utah (Fig. 1.7). What we know shapes our perceptions of places.

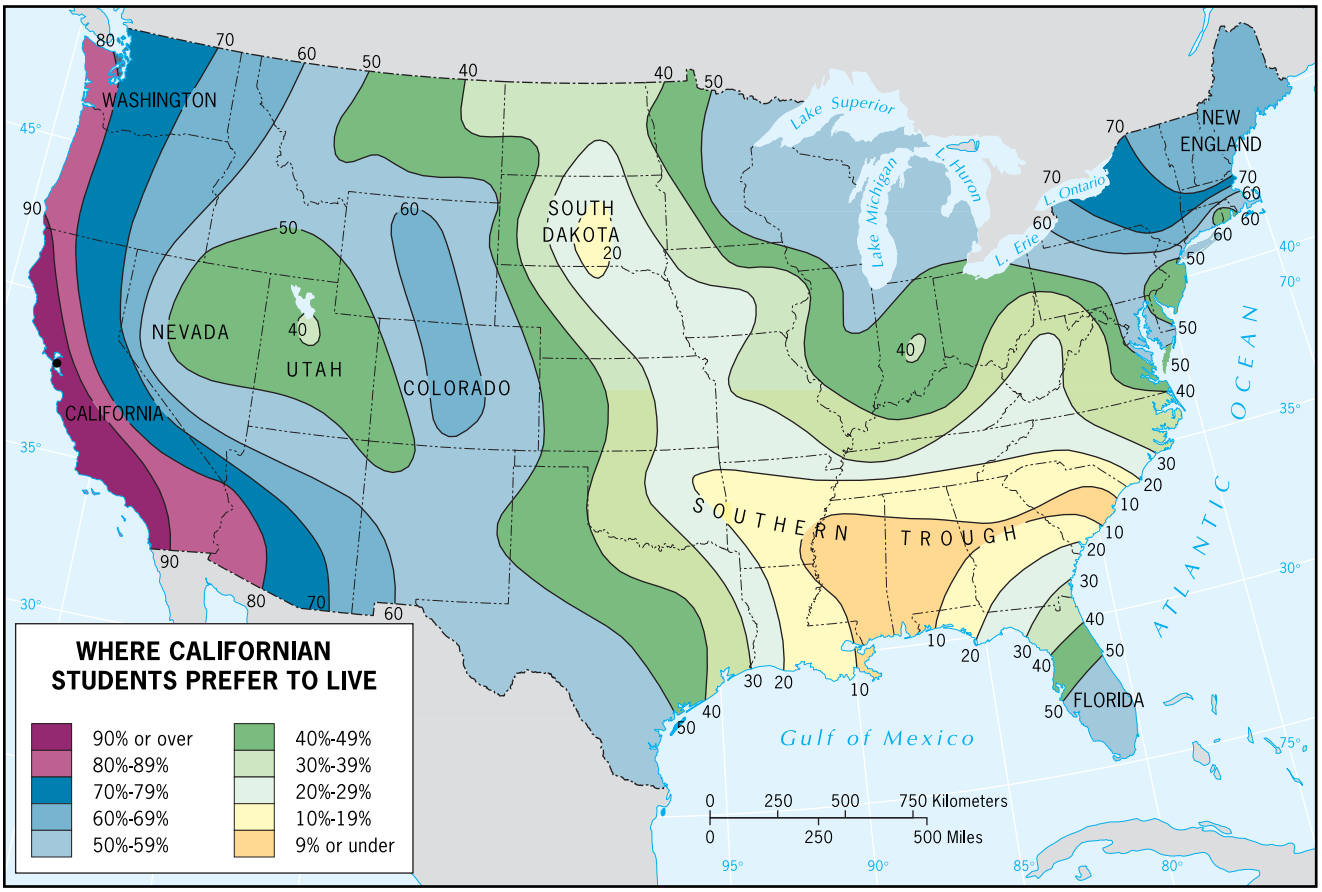


Figure 1.7 (continued)