

Diversity Amid Globalization

World Regions, Environment, Development

7TH EDITION

ROWNTREE

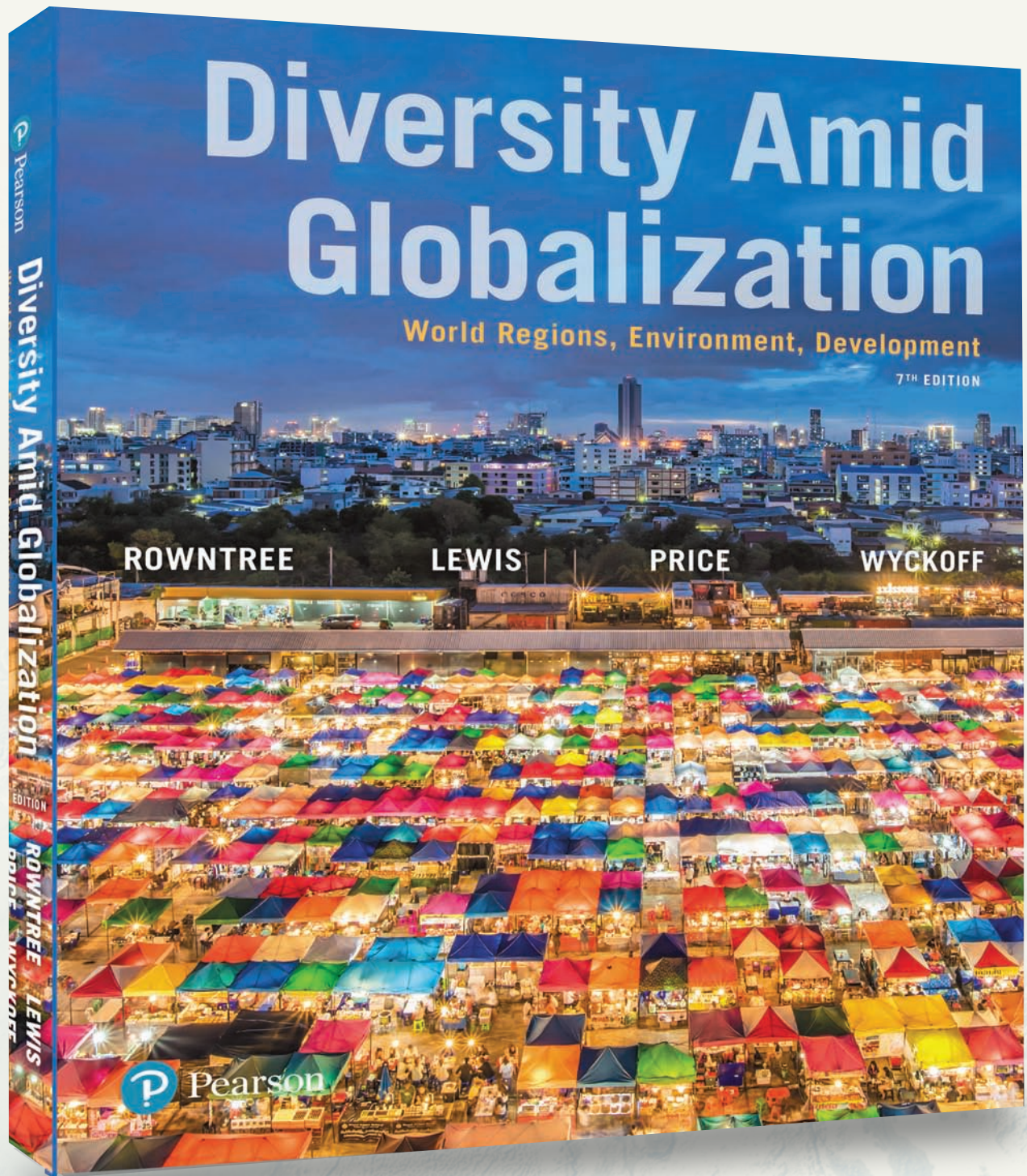
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The Sights, Sounds, and Tastes of World Regions



PEARSON

Providing Pathways for Students to Explore...

NEW! *Everyday Globalization* short sidebar features explore everyday products and commodities that people commonly use and consume, tracing their global links and the implications of consumption, including tensions between global and local communities. The features pose questions that ask students to reflect on their experience and interaction with these products and commodities.

Everyday Globalization

Our Plastic Bag World

Looking for something to celebrate? How about International Plastic Bag-Free Day—every July 3, people all over the world shop without using plastic grocery bags, pick up trash from beaches and roadsides, even commit to banning plastic bags in their communities.

One ban-the-bag organization estimates that one million plastic bags are used each minute. Besides being a pollution problem, manufacturing new bags takes millions of barrels of oil. In the United States alone, 12 million barrels of oil are used each year to make plastic bags.

True, some plastic bags can be recycled, but most are not, creating a global problem. Millions of plastic bags litter the countryside in China, where it's called "white pollution." Kenyans and South Africans refer to discarded white bags wafting about on the winds as their national flower (Figure 2.4.1). Even if these wayward bags were collected and buried in a landfill, they'd take several hundred years to decompose, releasing climate-changing methane gas.

Banning bags, or making them more expensive, seems to reduce usage. Some 20 U.S. states and over 200 cities have plastic bag ordinances. China claims to have an outright ban on plastic bags, but enforcement seems lax. Paris may be the biggest city with a full ban, and flood-prone Bangladesh may have the most compelling reason for a ban: engineers say that loose plastic bags clog drains, worsening flooding.

1. Does your community restrict or discourage the use of plastic shopping bags? If not, do you know of one? If so, what do people use instead?



▲ Figure 2.4.1 Waste Plastic Bags Litter the World's Landscapes

2. Does your community recycle plastic bags? Where do the bags eventually end up?

Everyday Globalization

Soccer Balls from Sialkot

Sports equipment manufacturing is a highly globalized business. All of the balls used in Major League Baseball, for example, are made by the Rawlings company in Costa Rica. Soccer balls, on the other hand, are closely associated with the city of Sialkot in northern Pakistan. Sialkot produces roughly 40 million soccer balls a year, or about 40 percent of the world's total supply (Figure 12.4.1). Its firms specialize in hand-stitched balls, used in World Cup competition and generally regarded as the best. Around 8 percent of Sialkot's soccer balls are exported to the United States.

Sialkot's soccer-ball industry faces a number of challenges. The city produces an array of other sporting goods, but its businesses have been losing customers to companies based in lower-cost countries, particularly China. As a result, Pakistani officials are keen to find new techniques that would allow them to maintain a competitive edge. In 2014, a team of researchers from Yale and Columbia Universities and Pakistan's Lahore School of Economics developed new procedures that would significantly reduce waste in the raw materials used to make high-quality soccer balls. They were disappointed, however, to learn that the factory workers resisted these new techniques, mostly because they did nothing to increase worker pay. In 2015, Pakistan's government announced its support for a new facility in Sialkot devoted to producing high-quality soccer balls using mechanized methods, hoping to eliminate the need for hand stitching.

1. How might Sialkot's sports-equipment firms respond to the challenge posed by Chinese exporters? What risks might they face in doing so?



▲ Figure 12.4.1 Soccer Balls from Sialkot: The Pakistani city of Sialkot is noted for its export-oriented sporting-goods industry. Here see workers sewing panels for an Adidas AG "Brazuca Replica Glider" soccer ball.

2. How many of your own sporting goods are imported? What countries have supplied them?

Geographers at Work

Exploring High-Latitude Siberia

Kelsey Nyland's fascination for polar regions—and geography—blossomed when she was an undergraduate at George Washington University. Initially a geology major, Nyland "didn't know what geography was," but an arctic environments course and subsequent fieldwork in Alaska hooked her. She found that in geography, you "get to see places, not just learn about them in classrooms abstractly," and eventually became an undergraduate research assistant for Dr. Nikolay Shiklomanov, who leads a program that monitors permafrost change throughout the Arctic and Antarctic. As permafrost warms and thaws, it can undermine roads, damage infrastructure, and release additional greenhouse gasses. "What's interesting is how [the thawing] permafrost actually affects infrastructure, how it affects people," Nyland notes. Her interest in both physical and human environments made geography an obvious fit—"everything I was doing was lining up with geography"—and she found that this is true for many students.

Siberian Research Nyland continued in the Master's program in Geography at George Washington and her interests returned her to Siberia (Figure 9.3.1). By 2015, Nyland had traveled to Siberia for five different field courses and learned all about using Landsat images to remotely monitor changing permafrost conditions. She also developed an additional research project (using historical photographs) examining how depopulating Siberian cities look decades after people had left.



▲ Figure 9.3.1. Geographer Kelsey Nyland observes material transport by Romantic Glacier in the Polar Ural Mountains, Russia during an expedition after the Tenth International Conference on Permafrost (July 2012).

Russian economic and urban policies impact the natural environments surrounding Siberian cities. Nyland's diverse interests in both physical and human geography demonstrate how good research benefits from a thorough background in both parts of the discipline.

NEW! *Geographers at Work* short sidebar features look at how geography is practiced in the real world, profiling active geographers working around the globe in a variety of careers using the tools and methods of geography. These features emphasize the diverse issues and places that geographers explore, emphasizing the many career and research opportunities of geography, and the interesting and relevant real-world problems that contemporary geography addresses.

...the Sights, Sounds, and Tastes of World Regions

NEW! Sights, Sounds, and Tastes of the Region

extend the print book and eText with mobile-ready Quick Response (QR) links to online videos, web maps, audio, and reference material to enrich the student experience with the sights, sounds, and tastes of world regions.

- **Google Earth Virtual Tour Videos** in most sidebar features give students brief, narrated explorations of the places discussed in the case studies.
- **Sights of the Region** link photos and maps to dynamic online Google Maps™ that include community-contributed photos, empowering students to explore the places and spaces that make up world regions.
- **Sounds of the Region** links give students access to audio of regional music, language, and fauna.
- **Tastes of the Region** links help students explore the geography and politics of food in each region, and include links to regional recipes.

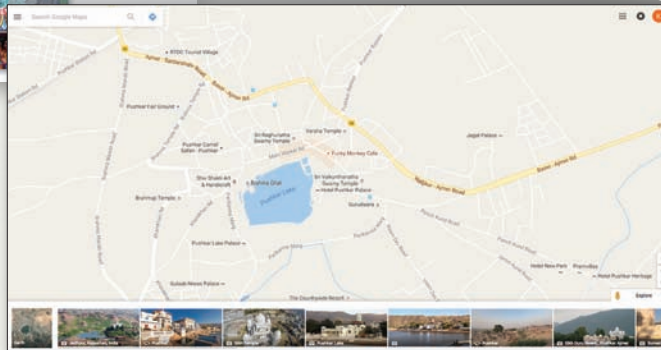


◀ **Figure 12.22 Hindu Temple** Hinduism's religious architecture often entails lavish sculpture and bright colors, as can be seen on this temple.

Explore the Sights of Sacred Pushkar Lake



<http://goo.gl/E0RY1w>



Exploring Global Connections

India's Emerging Computer Game Industry

India is well known for its information technology. Most Indian IT firms got their start by subcontracting for large western firms, often by providing specified forms software as well as a large array of back-office services. Companies such as Infosys, with revenue of US\$8.7 billion in 2015, have been moving up the technology ladder, emerging as global leaders in certain niches of software engineering. But until recently, India lacked the "start-up" business culture that has been vital in developing cutting-edge technologies in Silicon Valley and other tech hubs. This is beginning to change, however, as a new generation of Indian entrepreneurs launch their own firms. Some of these companies are following in the steps of established firms, such as Amazon and Uber. Many of the smaller Indian start-ups, however, are focusing on developing video games for both Indian and global customers (Figure 12.5.1).

Developing an Indian Gaming Industry Video game-making in India got its start in the same way that many other tech industries did: by taking on certain highly specialized tasks, such as modeling the movements of racing cars, for American or European firms. Now companies like Mumbai-based Yellow Monkey Studios make their own games designed for a global audience, such as "Socioball," described by the company as a "stylish new isometric puzzle game." The rise of the Indian gaming industry was evident in the 2015 and 2016 meetings of Pocket Gamer Connect, one of the world's leading mobile gaming events, in Bengaluru. Firms as large as Intel, Amazon, and Google sent representatives to the event, eager to establish a presence in this fast-growing sector.

A number of Indian gaming firms are connected with the film and television industries. Mumbai-based Reliance Games, for example, has racked up more than 70 million downloads of smartphone games linked to such movies as *Real Steel*, *Catching Fire*, and *Pacific Rim*. India's own massive film industry plays an increasingly important role as well. Ubisoft Pune, for example, has had marked success in smartphone music games that are endorsed by Bollywood stars. Game developers hope that such Indian-themed content will win over a global audience.

Obstacles and Opportunities India's gaming industry has been aided by the spectacular rise of smartphones in the country, now roughly as numerous in India as they are in the United States. But it has also been held back by India's poorly developed mobile communications infrastructure, which basically operates at 2G speeds. An equally serious problem is the lack of credit cards, held by only about 8 percent of Indians, which hinders purchase through online app stores. But, not surprisingly, Indian entrepreneurs are working on these problems through such measures as third-party wallet companies.



▲ **Figure 12.5.1 Indian Video Game Development** The Indian information technology industry has recently begun to take on video game development. Pictured here is Jaspreet Binda, head of the Entertainment Division of Microsoft India, with a game console at his office in Delhi, India.

However it is examined, the fast-growing Indian gaming industry is a highly globalized phenomenon. A prime example is UTV Software Communications, which aims to be the first Indian company to become a fully global player in the video game market—and which was acquired by Disney Enterprises in 2011. But globalization cuts both ways. A small Indian studio called On The Couch Entertainment recently created a game called *Rooftop Mischief*, but did not have the expertise to generate the accompanying music. For this feature the company turned to outsourcing, getting the necessary music from a firm in the United Kingdom.

Google Earth Virtual Tour Video



<http://goo.gl/Pqz0rP>

1. What cultural advantages might help India in its quest to develop video games for the global market?
2. What other obstacles might India face in trying to develop a start-up business culture?

UPDATED! Exploring Global Connections

features explore the often surprising connection between places and regions around the world, leveraging recent events and more coverage of cultural and environmental topics. All features are integrated with QR links to Google Earth™ Virtual Tour Videos.

Structured Learning Path...



Physical Geography and Environmental Issues

Stretching from Texas to the Yukon, the North American region is home to an enormously varied natural setting and to an environment that has been extensively modified by human settlement and economic development.



Population and Settlement

Settlement patterns in North American cities reflect the diverse needs of an affluent, highly mobile population. The region's sprawling suburbs are designed around automobile travel and mass consumption, whereas many traditional city centers struggle to redefine their role within the decentralized metropolises.



Cultural Coherence and Diversity

Cultural pluralism remains strong in North America. Currently, more than 49 million immigrants live in the region, more than double the total in 1990. The tremendous growth in the numbers of Hispanic and Asian immigrants since 1970 has fundamentally reshaped the region's cultural geography.



Geopolitical Framework

Cultural pluralism continues to shape political geographies in the region. Immigration policy remains hotly contested in the United States, and Canadians confront persistent regional and native peoples' rights issues.



Economic and Social Development

North America's economy recovered in many settings after the harsh economic downturn between 2007 and 2010. Still, persisting poverty and many social issues related to gender equity, aging, and health care challenge the region today.

The Critical Themes of Geography present a consistent thematic structure covering five themes in each regional chapter, making navigation and cross-regional comparisons easy for students and instructors. Themes include *Physical Geography and the Environment*, *Population and Settlement*, *Cultural Coherence and Diversity*, *Geopolitical Framework*, and *Economic and Social Development*.

Port Metro Vancouver is now North America's third largest port (and Canada's largest). The sprawling dock facilities, cargo and cruise terminals, and shipyards symbolize the close connections between this dynamic North American city and the global economy. Vancouver (2.5 million people) is also one of North America's most culturally diverse cities and its healthy economy has attracted a sizable foreign-born population—45 percent of its residents. The city's Chinese population is among North America's largest, along with sizable immigrant communities from South Asia and the Philippines. Future trade with Asia promises further growth and even stronger connections across the Pacific. Signed in 2016, the Trans-Pacific Partnership (TPP), a comprehensive agreement among 12 countries including Canada

and the United States, is designed to stimulate Pacific trade and lower tariff barriers between member states. If ratified by all participants, the TPP guarantees that Vancouver's bustling port and its regional economy will continue to grow in the 21st century.

Similar processes of globalization have fundamentally refashioned many portions of North America. Large foreign-born populations are found in many North American settings. Tourism brings in millions of additional foreign visitors and billions of dollars, which are spent everywhere from Las Vegas to Disney World. North Americans engage globally in more subtle ways: eating ethnic foods, enjoying the sounds of salsa and Senegalese music, and surfing the Internet from one continent to the next. Globalization is also a two-way street, and North American capital, popular culture, and power are ubiquitous. By any measure of multinational corporate investment and global trade, the region plays a role that far outweighs its population of 360 million residents.

Defining North America

North America is a culturally diverse and resource-rich region that has seen tremendous, sometimes destructive, modification of its landscape and extraordinary economic development over the past two centuries (Figure 3.1). As a result, North America is one of the world's wealthiest regions, with two highly urbanized, mobile populations that help drive the processes of globalization and have the highest rates of resource consumption on Earth. Indeed, the region exemplifies a **postindustrial economy** shaped by modern technology, innovative information services, and a popular culture that dominates both North America and the world beyond (Figure 3.2).

Politically, North America is home to the United States, the last remaining global superpower. In addition, North America's largest metropolitan area, New York City (20 million people), is home to the United Nations and other global political and financial institutions. North of the United States, Canada is the region's other political unit. Although slightly larger in area than the United States (3.83 million square miles [9.97 million square kilometers] versus 3.68 million square miles [9.36 million square kilometers]), Canada's population is only

about 11 percent that of the United States.

The United States and Canada are commonly referred to as "North America," but that regional terminology can be confusing. As a physical feature, the North American continent commonly includes Mexico, Central America, and often the Caribbean. Culturally, however, the U.S.–Mexico border seems a better dividing line, although the growing Hispanic presence in the southwestern United States, as well as ever-closer economic links across the border, makes even that regional division problematic. In addition, while Hawaii is a part of the United States (and included in this chapter), it is also considered a part of Oceania (and discussed in Chapter 14). Finally, Greenland (population 56,000), which often appears on the North American map, is actually an autonomous territory within the Kingdom of Denmark and is mainly known for its valuable, but diminishing, ice cap.

North America, one of the world's wealthiest regions with two highly urbanized, mobile populations, helps drive the processes of globalization.

Regional-specific Learning Objectives

at the beginning of each chapter connect to end-of-chapter material, review questions, and MasteringGeography activities, forming a cohesive student experience.

LEARNING Objectives

- 3.1 Describe North America's major landform and climate regions.
- 3.2 Identify key environmental issues facing North Americans and connect these to the region's resource base and economic development.
- 3.3 Analyze map data to identify and describe major migration flows in North American history.
- 3.4 Explain the processes that shape contemporary urban and rural settlement patterns.
- 3.5 List the five phases of immigration shaping North America and describe the recent importance of Hispanic and Asian immigration.
- 3.6 Provide examples of major cultural homelands (rural) and ethnic neighborhoods (urban) within North America.
- 3.7 Describe how the United States and Canada developed distinctive federal political systems and identify each nation's current political challenges.
- 3.8 Discuss the role of key location factors that explain why economic activities are located where they are in North America.
- 3.9 List and explain contemporary social issues that challenge North Americans in the 21st century.

REVIEW

- 3.1 Describe North America's major landform regions and climates, and suggest ways in which the region's physical setting has shaped patterns of human settlement.
- 3.2 Identify the key ways in which humans have transformed the North American environment since 1600.
- 3.3 Describe four key environmental problems that North Americans face in the early 21st century.

KEY TERMS Trans-Pacific Partnership (TPP), postindustrial economy, boreal forest, tundra, prairie, urban heat island, acid rain, renewable energy sources, fracking

Review Questions at the end of each thematic section help students check their comprehension as they read, emphasizing the most important points for clarity.

...for Active Learning

REVIEW, REFLECT, & APPLY

Chapter 3 North America

Summary

- North America's affluence comes with a considerable price tag. Today the region's environmental challenges include air and water pollution, improving the efficiency of its energy economy, and adjusting to the realities of climate change.
- In a remarkably short time, a unique and changing mix of peoples from around the world radically disrupted indigenous

populations and settled a huge, resource-rich continent that is now one of the world's most urbanized regions.

- North America is home to one of the world's most culturally diverse societies, and the region's contemporary popular culture has had an extraordinary impact on almost every corner of the globe.
- The region's two societies are closely intertwined, yet they face distinctive political and cultural issues.

Canada's multicultural identity remains problematic, and it must deal with both the costs and benefits of living next door to its continental neighbor.

- For the United States, social and political challenges linked to its ethnic pluralism, immigration issues, and enduring poverty and racial discrimination remain central concerns, particularly in its largest cities.

Review Questions

- Explain how "natural hazards" can be shaped by human history and settlement. In other words, what role do humans play in shaping the distribution of hazards?
- How have the major North American migration flows since 1900 influenced contemporary settlement patterns?

cultural geographies, and political issues within the region?

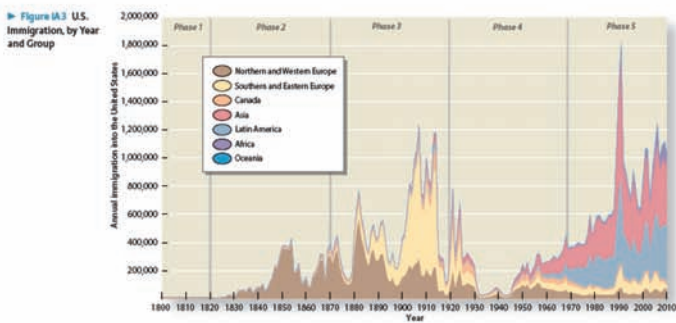
- Summarize and map the ethnic background and migration history of your own family. How do these patterns parallel or depart from larger North American trends?
- Describe the strengths and weaknesses of federalism and cite examples from both the United States and Canada.

- The environmental price for North America's economic development has been steep. Suggest why it may or may not have been worth the price and defend your answer.
- Who will be North America's leading trade partner in 2050? Explain the reasons for your answer.

Image Analysis

- This chart shows annual immigration to the United States by region of origin. Note the sharp peaks clustered in Phase 3 and Phase 5. Which immigrant groups dominated immigration during these peak years? What common economic or cultural factors might explain both surges?

- Which of the immigrant groups shown in the graphic make up important portions of your local community and why did they settle there? Did they settle in your community as foreign-born immigrants or did they arrive in later generations?



▲ Figure 7.45 Iranian Women These fashionably dressed young women in Tehran suggest how Iran's more urban and affluent residents have embraced many elements of Western culture. **Q: What unique challenges confront educated women in Iran? Unique opportunities?**

JOIN THE DEBATE

Fracking has revolutionized the American energy economy, but it is a highly controversial technology in which millions of gallons of water, sand, and other chemicals are injected deep into the earth. Are the economic benefits worth the potential costs?

Fracking Has Brought an Amazing Set of Benefits to North America!

- Many shale-rich regions of the United States, including Texas, Oklahoma, Ohio, Pennsylvania, and North Dakota, enjoy economic growth as energy-related jobs are created and as landowners benefit from the leasing of their acreage to energy companies.
- Fracking has made the country less vulnerable to foreign energy producers, and someday the country may even be a major energy exporter.
- Fracking has dramatically lowered the cost of clean-burning natural gas, a boon to consumers and to the entire economy as it outcompetes older, dirtier coal-fired power plants.

The Costs of Fracking Far Outweigh the Benefits! It Should Be Stopped Until We Know All the Long-Term Consequences.

- Fracking wells have a notoriously short life, and the drilling process at the site seriously impacts the environment.
- Much of the water injected into the shale formations remains there, forever removed from other uses. Furthermore, contaminated water from fracking waste pits has leaked into groundwater and increased contaminants such as methane gas and benzene, causing serious health problems for nearby residents.
- In places such as Ohio and Oklahoma, fracking has been strongly connected to increased earthquake activity. We don't know the long-term geological consequences of this technology or who will pay for damages. We need strong, uniform federal standards.



▲ Figure D.3 Fracking Rig in Butler County, PA Pennsylvania's energy-rich shales have been a major target of fracking operations such as this one in the western part of the state. While bringing new jobs and producing energy resources, the technology has also been fraught with environmental controversy.

KEY TERMS

- acid rain (p. 81)
- agribusiness (p. 112)
- boreal forest (p. 79)
- connectivity (p. 114)
- cultural assimilation (p. 95)
- cultural homeland (p. 91)
- edge city (p. 93)
- ethnicity (p. 95)
- federal states (p. 101)
- food deserts (p. 101)
- fracking (p. 84)
- gender gap (p. 118)
- gentrification (p. 111)
- Group of Eight (G8) (p. 116)
- location factors (p. 114)
- locavore movement (p. 112)
- Megalopolis (p. 83)
- new urbanism (p. 93)
- nonmetropolitan growth (p. 91)
- North American Free Trade Agreement (NAFTA) (p. 107)
- outsourcing (p. 117)
- postindustrial economy (p. 76)
- prairie (p. 79)
- renewable energy sources (p. 84)
- sectoral transformation (p. 114)
- Spanglish (p. 102)
- sustainable agriculture (p. 112)
- Trans-Pacific Partnership (TPP) (p. 78)
- tundra (p. 79)
- unitary states (p. 101)
- urban decentralization (p. 92)
- urban heat island (p. 81)
- World Trade Organization (WTO) (p. 116)

DATA ANALYSIS



Every decade, the Census Bureau gathers and summarizes an enormous amount of data for the United States. These data are used by planners and government agencies to forecast future needs for public infrastructure and social services. Age and sex distributions for cities and states can provide real insights into the social and economic characteristics of these settings. Population pyramids are convenient ways to visualize these characteristics (see Figure 3.13). Go to the Census Bureau's website (www.census.gov) and access the summaries and predictions of state populations.

- Examine the 2010 and 2030 (projected) pyramids for Florida and Utah. Describe major similarities and differences for both years. Write a paragraph that summarizes reasons for these differences.
- Select two additional states that display quite different population structures. Write a paragraph that summarizes and explains these differences.
- From the point of view of a planner or budget expert, explain how the different population structures in the states you selected might impact future expenditures and trends in economic development in 2030 and beyond.

MasteringGeography™

Looking for additional review and test prep materials? Visit the Study Area in MasteringGeography™ to enhance your geographic literacy, spatial reasoning skills, and understanding of this chapter's content by accessing a variety of resources, including MapMaster interactive maps, videos, in the News RSS feeds, flashcards, web links, self-study quizzes, and an eText version of Diversity Amid Globalization.

Authors' Blogs



Scan to visit the **GeoCurrents blog** <http://www.geocurrents.info/category/place/north-america>



Scan to visit the **author's blog** for chapter updates. <https://gnliblog.wordpress.com/category/north-america>

NEW! Two-page Review, Reflect, & Apply sections at the end of each chapter provide a robust interactive review experience, including: a concise chapter summary, *Review Questions* that bridge multiple chapter themes, *Image Analysis* questions, *Join the Debate* activities that encourage students to explore both sides of a complex issue affecting the region, *Data Analysis* activities, as well as QR links to author blogs.

UPDATED! Visual Questions within each chapter section give students more opportunity to stop and practice visual analysis and critical thinking.

Continuous Learning Before, During, and After Class...

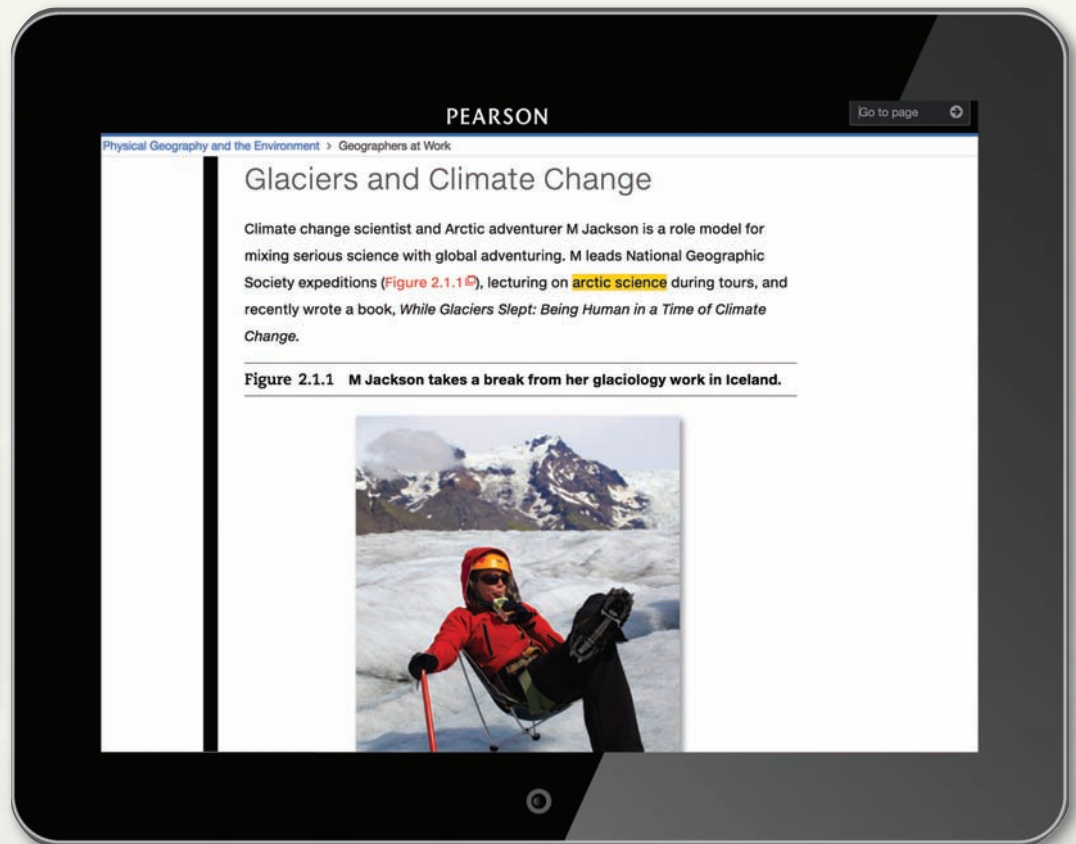
BEFORE CLASS

Mobile Media & Reading Assignments Ensure Students Come to Class Prepared



UPDATED! Dynamic Study Modules

help students study effectively by continuously assessing student performance and providing practice in areas where students struggle the most. Each Dynamic Study Module, accessed by computer, smartphone, or tablet, promotes fast learning and long-term retention.



NEW! Interactive eText 2.0 gives students access to the text whenever they can access the Internet. eText features include:

- Now available on smartphones and tablets
- Seamlessly integrated videos and other rich media
- Accessible (screen-reader ready)
- Configurable reading settings, including resizable type & night reading mode
- Instructor and student note-taking, highlighting, bookmarking, and search

Pre-Lecture Reading Quizzes are easy to customize and assign

UPDATED! Reading Questions ensure that students complete the assigned reading before class and stay on track with reading assignments. Reading Questions are 100% mobile ready and can be completed by students on mobile devices.

...with MasteringGeography™

DURING CLASS

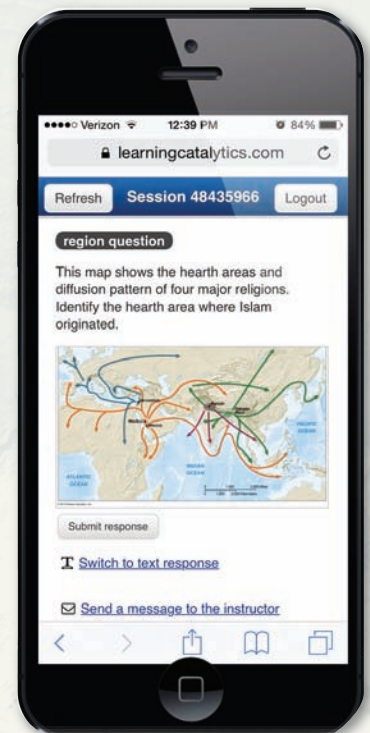
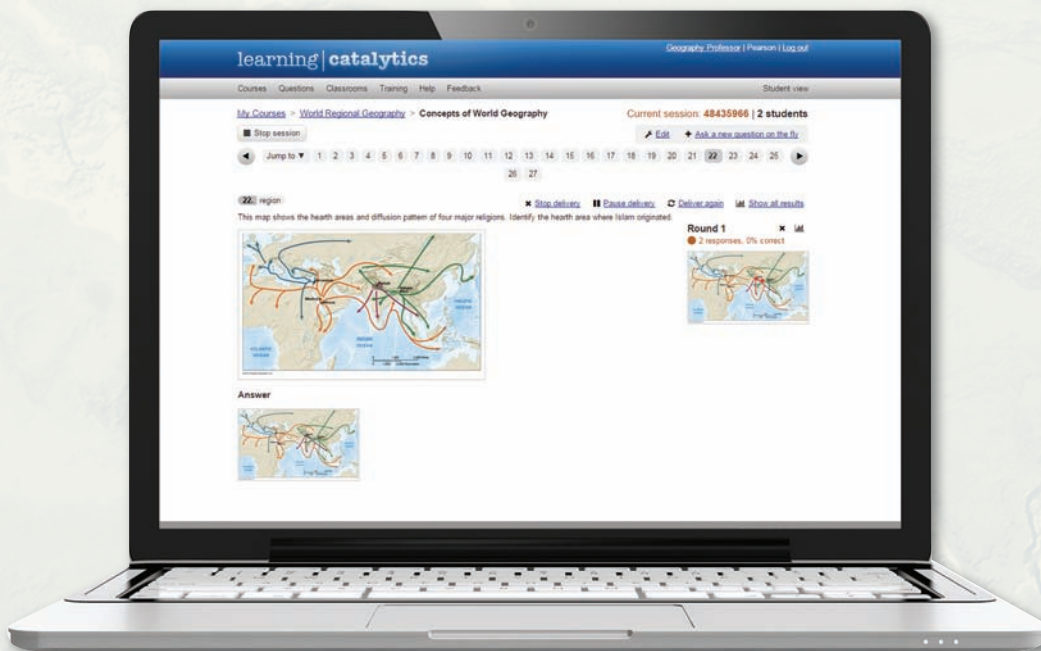
Engage students with Learning Catalytics

What has Teachers and Students excited? Learning Catalytics, a “bring your own device” student engagement, assessment, and classroom intelligence system, allows students to use their smartphone, tablet, or laptop to respond to questions in class. With Learning Catalytics, you can:

- Assess students in real-time using open ended question formats, including sketching, ranking, image upload, and word clouds, to uncover student misconceptions and adjust a lecture accordingly.
- Automatically create groups for peer instruction based on student response patterns, to optimize discussion productivity.

“My students are so busy and engaged answering Learning Catalytics questions during the lecture that they don’t have time for Facebook.”

Declan De Paor, Old Dominion University



Continuous Learning Before, During, and After Class...

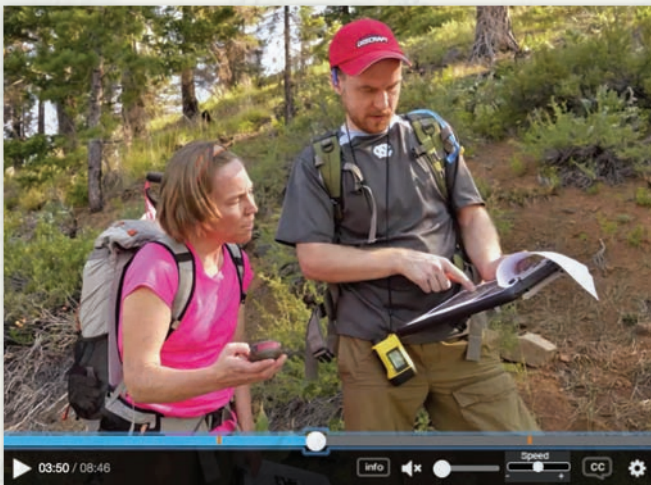
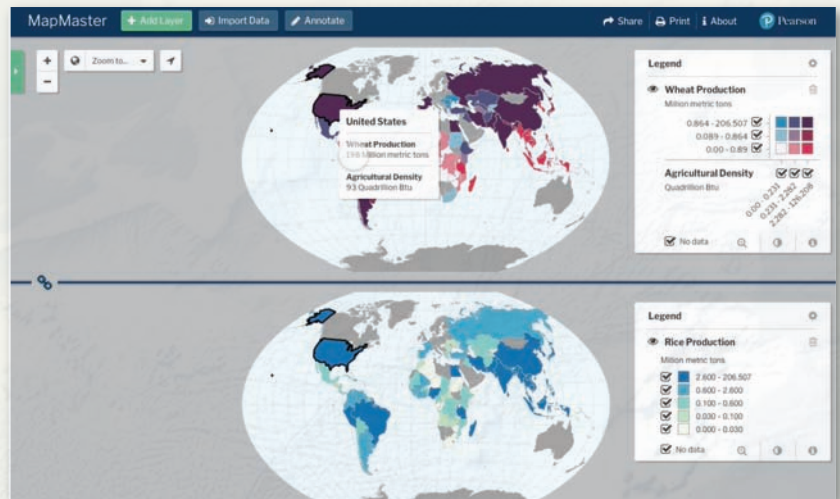
AFTER CLASS

Easy to Assign, Customizable, Media-Rich, and Automatically Graded Assignments



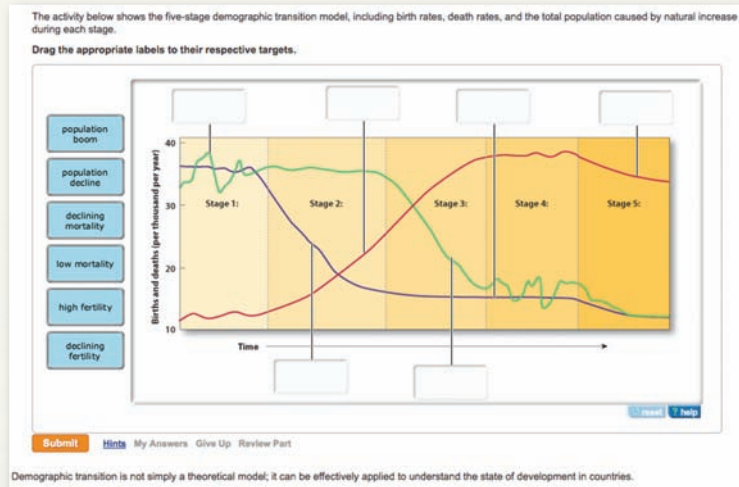
NEW! Geography Videos from sources such as the BBC, *Financial Times*, and Television for the Environment's *Life* and *Earth Report* series are included in MasteringGeography. These videos provide students with a sense of place with applied real-world examples of geography in action, and allow students to explore a range of locations and topics.

NEW! MapMaster 2.0 Interactive Map Activities are inspired by GIS, allowing students to layer various thematic maps to analyze spatial patterns and data at regional and global scales. Now fully mobile, with enhanced analysis tools, such as split screen, the ability for students to geolocate themselves in the data, and the ability for students to upload their own data for advanced map making. This tool includes zoom, and annotation functionality, with hundreds of map layers leveraging recent data from sources such as the PRB, the World Bank, NOAA, NASA, USGS, United Nations, the CIA, and more.



NEW! Mobile Field Trip Videos have students accompany photographer and pilot Michael Collier in the air and on the ground to explore the processes and stories of iconic landscapes in North America and beyond.

...with MasteringGeography™



UPDATED! GeoTutor Activities help students master the most challenging geography concepts with highly visual, kinesthetic activities focused on critical thinking and the application of core geography concepts.

UPDATED! Encounter (Google Earth) Activities provide rich, interactive explorations of human geography concepts, allowing students to visualize spatial data and tour distant places on the virtual globe.



Map Projections

Map Projection Properties: Exploring Projections

Introduction Earth's Graticule Map Projection Properties Map Projection Classes Using Map Projections

Distortion on Projections Equal Area Projections Conformal Projections Compromise Projections Exploring Projections

Robinson Compromise Eckert Equal Area

Globe Mercator Conformal

CONTINUE

Exploring Projections

Let's compare the ways different landmasses are depicted on different projections.

Select the highlighted landmasses on the globe and compare the shape and area depictions on the three map projections.

Click the arrows to navigate the globe.

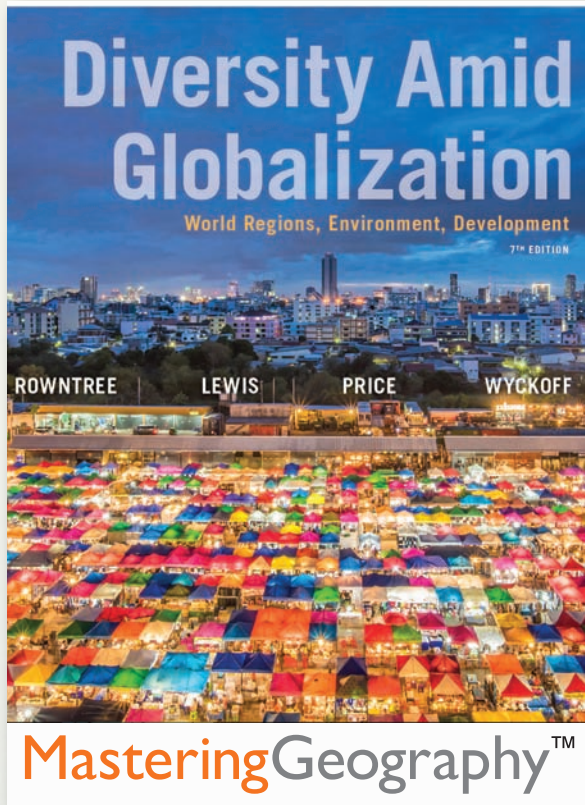
Click CONTINUE to go to the questions.

00:20 00:42

REPLAY PREVIOUS PAUSE NEXT

Map Projections Tutorials help reinforce and remediate students on basic but challenging early map projection concepts.

Resources for YOU, the Instructor



MasteringGeography™ provides you with everything you need to prep for your course and deliver a dynamic lecture, in one convenient place. Resources include:

LECTURE PRESENTATION ASSETS FOR EACH CHAPTER

- PowerPoint Lecture Outlines
- PowerPoint clicker questions
- Files for all illustrations, tables, and photos from the text

Measuring Student Learning Outcomes

All of the MasteringGeography assignable content is tagged to learning outcomes from the book, the National Geography Standards, and Bloom's Taxonomy. You also have the ability to add your own learning outcomes, helping you track student performance against your specific course goals. You can view class performance against the specified learning outcomes and share those results quickly and easily by exporting to a spreadsheet.

TEST BANK

- The *Test Bank* in Word format
- TestGen Computerized *Test Bank*, which includes all the questions from the printed *Test Bank* in a format that allows you to easily and intuitively build exams and quizzes

TEACHING RESOURCES

- *Instructor Resource Manual* in Microsoft Word and PDF formats
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Diversity Amid Globalization

World Regions, Environment, Development

7TH EDITION

ABOUT THE COVER: *The new Train Night Market Ratchada in Bangkok, Thailand illustrates the themes of this book: diversity and globalization. Bangkok is a highly diverse and cosmopolitan metropolitan area, home to more than 14 million people, and generates almost half of Thailand's economic output, much of it through exports. International tourism also features heavily in the local economy, and many tourists join local shoppers in this bustling market. Most visit the market's many inexpensive food stalls, which provide such international fare as sushi and pizza but also feature local street-food specialties, including Noodle Jompalang and Midnight Pangyen. The more adventuresome visitors might want to sample selections of fried beetles and other insects. Such dishes are widely regarded as delicacies in Thailand, although they seldom feature in Thai restaurants found outside the country. Globalization may be ubiquitous, but it has its limits.*



Diversity Amid Globalization

World Regions, Environment, Development

7TH EDITION

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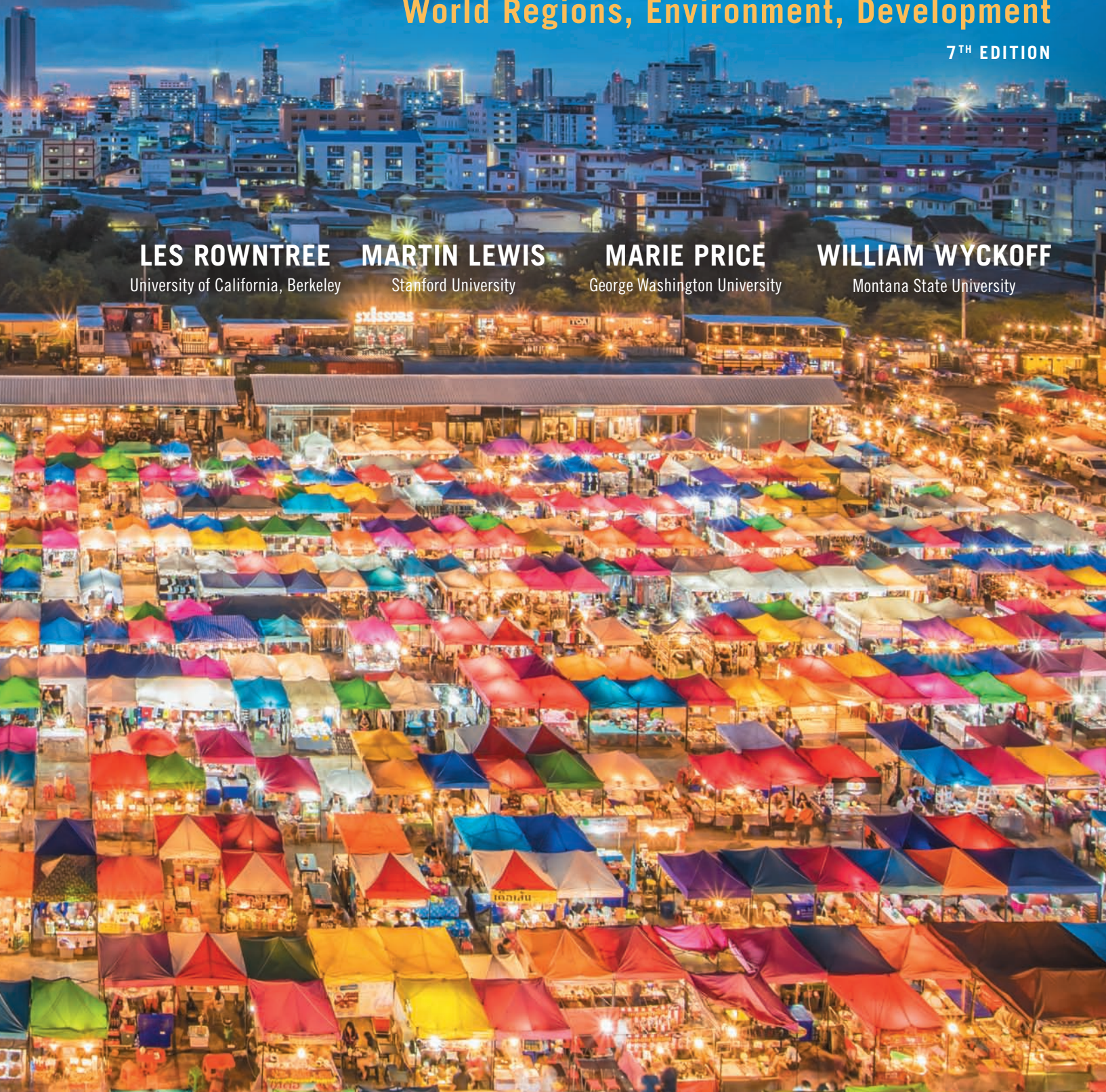
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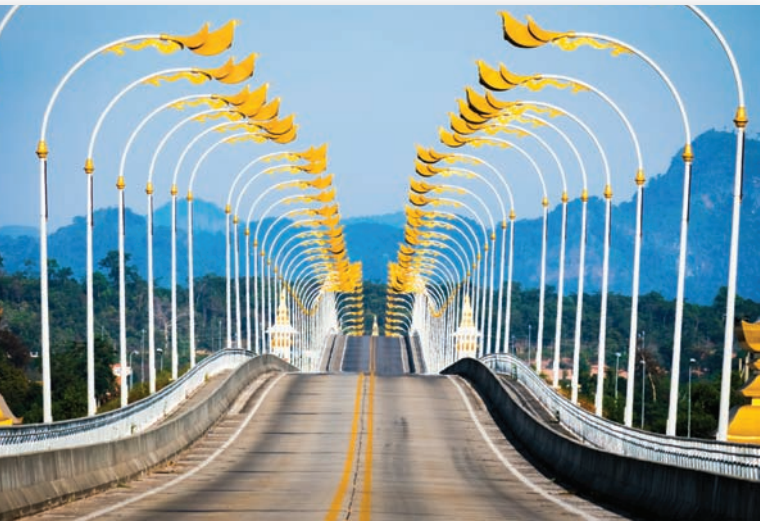
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PREFACE

Diversity Amid Globalization, Seventh Edition, is an issues-oriented textbook for college and university world regional geography classes that explicitly recognizes the vast geographic changes taking place because of globalization. With this focus, we join the many scholars who see globalization as the most fundamental reorganization of the world's socioeconomic, cultural, and geopolitical structures since the Industrial Revolution. That premise provides the point of departure and underlying assumptions of this book.

As geographers, we think it essential for our readers to understand and critically appraise the two interactive themes that are reflected in this book's title, *Diversity Amid Globalization*. First, the convergence of environmental, cultural, political, and economic systems through the processes of globalization has numerous consequences, both obvious and obscure, at every scale of analysis and in every part of the world. Second, many forms of diversity persist—and sometimes even expand—despite the leveling tendencies of globalization. It is also increasingly apparent that globalization generates its own resistance, which can range from celebrations of local products and customs, to grassroots opposition to global trade deals, to hard-edged nationalism and hostility toward immigration. Clearly, globalization is a ubiquitous, politically charged, and complex phenomenon that demands sustained geographical analysis.

New to the Seventh Edition

- New chapter opener vignettes and photos have been added that highlight recent events and global linkages, with accompanying maps that pinpoint vignette locations. This edition also features more focused and consistent introductions in Chapters 3–14, placed under the heading “Defining the Region.”
- New *Geographers at Work* sidebars profile a working geographer's research, intellectual development, and views on the discipline. Many of these sidebars include maps or remote sensing images.
- New *Sights of the Region* features provide mobile-ready Quick Response (QR) links from photos to online Google Maps, enabling students to browse web maps and community-contributed photos of the diverse geographies featured in the print book. Students use mobile devices to scan Quick Response (QR) codes to get immediate online access and connect print images with dynamic online web maps and photos.
- New *Sounds of the Region* features provide QR links to sound clips that help give students a sense of culture and natural environments around the world, highlighting language, music, and the soundscapes of both natural and urban environments.

- New *Tastes of the Region* features in each regional chapter explore culinary traditions and innovations associated with different parts of the world. These QR links to websites provide recipes and other pertinent information on food production and consumption, as well as material on cultural aspects of regional cuisines.
- The new end-of-the-chapter format—*Review, Reflect, & Apply*—asks students to answer broad-based questions spanning concepts and regions. Two of the three components of this feature, *Image Analysis* and *Data Analysis*, provide concrete exercises based on the analysis of graphic images and demographic or socioeconomic data. The third, *Join the Debate*, frames two opposing viewpoints on controversial issues and asks students to assess their claims and weigh in on their own.
- New *Mobile Field Trip Videos* have students accompany renowned geoscience photographer Michael Collier in the air and on the ground to explore iconic landscapes that have shaped North America and beyond. Students scan QR codes in the print book to get instant access to these media, which are also available for assignment with quizzes in MasteringGeography.

Revised Features in the Seventh Edition

- Although the sidebar categories from the previous edition have been largely retained, most individual sidebars have been replaced. The *Everyday Globalization* feature has been sharpened and framed around new topics. The *Working Toward Sustainability* and *Exploring Global Connections* sidebars have been revamped, many with QR links to new Google Earth Virtual Tour videos. Most *People on the Move* sidebars are new as well.
- Extensive current events updates have been provided in each chapter, many maps have been substantially revised, and new photos are found throughout the book. All climate maps now have enlarged climographs for improved viewing, and most religion maps have been redrafted to reflect the more accurate information that has recently become available. The two data tables in each regional chapter have been completely updated with the most recently available data.
- The learning-path feature has been sharpened and enhanced in each chapter. *Learning Objectives* are now numbered for easy reference and have been revised; key terms are now repeated at the end of each section and in the end-of-chapter materials; concept check questions have been added to all four sidebars; tabular data on population and development measures have been integrated with MapMaster and now include questions related to mapping activities. This edition also features a more consistent use of questions that are linked to selected figures.

New and Updated Features in Chapter 1: Concepts of World Geography

- This chapter has been tightened and is now focused more sharply on geography. The order of the introductory sections has been rearranged so that *Geography Matters* (which introduces the basic concepts of the discipline) now comes before *Converging Currents of Globalization*. A new U.S. Rust Belt map illustrates the functional region concept.
- The *Globalization* section of Chapter 1 has itself been reordered to follow the main themes of the regional chapters (environment, population, culture, geopolitics, and economic and social development). The “Thinking Critically about Globalization” discussion has been revised and shortened, and new information has been provided on digital information flows.
- The thematic sections of the introductory chapter have also been updated, revised, and provided with new examples and photos.
- Several key terms have been added, including *space*, *place*, and *territory*. The existing sidebars in this chapter have been revised, and a new sidebar on conflict mapping has been added.

New and Updated Features in Chapter 2: Physical Geography and the Environment

- The discussion of plate tectonics in the *Geology* section has been substantially revised, with new diagrams and photos illustrating plate movement and natural hazards. New Mobile Field Trips QR link to concise videos on earthquake faults, climate change, volcanic activity, cloud dynamics, cloud forests, oil sands, and forest fires.
- The *Global Climates* section has been revised and expanded, with enhanced discussions of both climate change itself and international mitigation efforts. The 2015 Paris Agreement goals are introduced, as are various national climate plans. Weather and climate diagrams, images, and data have been revised and updated.
- The *Bioregions and Biodiversity* section is now highlighted by earlier placement in the chapter and through a new bioregions photo spread with detailed captions. Additional new features here include discussions of nature and the global economy, climate change and the natural world, and the current extinction crisis.

Thematic Organization

Diversity Amid Globalization is organized around the conventional world regions of Sub-Saharan Africa, Europe, Latin America, East Asia, South Asia, and so on. We have, however, added two distinctive regions that are often excluded from the standard world regional scheme: Central Asia and the Caribbean. Our 12 regional chapters further depart from the treatment found in traditional world regional textbooks by employing a thematic framework that avoids extensive descriptions of each individual country. Instead, we have placed such “country by country” material online in the MasteringGeography Study Area.

In *Diversity Amid Globalization*, each regional chapter is organized around five key geographic themes. First is *Physical Geography and Environmental Issues*, in which we not only describe the physical geography of each region but also outline major environmental issues, including climate change and energy use. Next comes *Population and Settlement*, where we examine each region’s demographic trends, migration patterns, land use systems, and settlement configurations, including urbanization. Our third theme, *Cultural Coherence and Diversity*, covers the traditional topics of language and religions and examines the ethnic and cultural tensions resulting from globalization. Topics of popular culture, including sports, music, and food, are also included in this section. We turn next to the *Geopolitical Framework*, examining the political geography of each region. Here we take on such contentious issues as ethnic conflicts, border disputes, separatism, regionalism, systems of alliance, and global terrorism. Each regional chapter concludes with an extended discussion of *Economic and Social Development*. In this section we explore changing economic frameworks at the local, national, regional, and global scales, and examine as well such social issues as health, education, and gender inequalities.

These 12 regional chapters follow two substantive introductory chapters that provide the fundamentals of both human and physical geography. The first chapter, “Concepts of World Geography,” begins with an introduction to the discipline of geography, highlighting its major concepts. It then turns to the geographic dimensions of globalization, including a discussion of the costs and benefits of globalization, as outlined by both proponents and opponents. In the next section, “The Geographer’s Toolbox,” students are informed about such matters as map-reading, cartography, aerial photos, remote sensing, and GIS. This introductory chapter concludes with an analysis of the key themes that are used to structure the regional chapters, as well as a description of the data tables that are found throughout the text.

Chapter 2, “Physical Geography and the Environment,” provides an overview of the principles of physical and environmental geography that are discussed extensively in the first section of each regional chapter. Here we emphasize geomorphology and basic geological processes; environmental hazards and degradation; weather, climate, and global warming; global bioregions and biodiversity; hydrology and water stress; and changing energy profiles.

Chapter Features

- **Structured learning path.** Every chapter begins with an explicit set of learning objectives to provide students with the larger context of each chapter. Review questions and key terms after each section allow students to refresh and test their learning. Each chapter ends with an innovative, graphically rich “Review, Reflect, & Apply” section, where students are asked to employ what they have absorbed from the chapter in an active-learning framework.
- **Comparable regional maps.** Of the various maps found in each regional chapter, many are constructed on the same themes and with similar data so that readers can easily draw comparisons between different regions. All regional chapters have comparable maps of physical geography, climate, environmental issues, population density, language, and geopolitical issues. Most of these chapters also have similar maps on migration and religion.
- **Additional maps pertinent to each region.** The regional chapters also contain many additional maps illustrating important geographic topics such as global economic issues, social development, and ethnic tensions.
- **Comparable regional data sets.** Two thematic tables in each regional chapter facilitate comparisons between regions and provide important information on the characteristics of the area under consideration. The first table provides essential population data for each country within the region, including fertility rates, the proportions of the population under 15 and over 65 years of age, and net migration rates. The second table presents economic and social development data for each country, including gross national income per capita, gross domestic product growth, life expectancy for men and women, percentage of the population living on less than \$3.10 per day, child mortality rates, and the United Nations gender inequality index.
- Consistent **Sidebar essays, many with Google Earth Virtual Tour Videos.** Each of the regional chapters has five sidebars focused on particular geographic themes. To facilitate visual geographic understanding, several sidebars in each chapter contain QR “hot links” to Google Earth Virtual Tour Videos. Critical thinking questions at the end of each sidebar ask students to reflect on how these topics apply to their own lives. The sidebar themes are as follows:
 - **WORKING TOWARD SUSTAINABILITY**, which features case studies of sustainable environmental projects throughout the world, emphasizing positive ecological and social initiatives and their results.
 - **EXPLORING GLOBAL CONNECTIONS**, which investigates the many ways in which activities in different parts of the world are linked together, showing

students that in our globalized world, regions are neither isolated nor discrete.

- **PEOPLE ON THE MOVE**, which seeks to capture the human geography behind contemporary migration, exploring how people relocate, legally and not so legally, as they respond to the varied currents and expressions of globalization.
- **EVERYDAY GLOBALIZATION**, a shorter sidebar feature that illustrates the many ways that globalization permeates students’ everyday lives. Topics here range from food, to clothing, to cell phones, to music, and beyond.
- **GEOGRAPHERS AT WORK**, which highlights the research and career paths of individual geographers active in the region under consideration. Interview questions posed to the subjects help bring these portrayals to life.
- **QR links to author blogs.** These links lead readers to two blogs where authors discuss everything from current events to their travels and field research. Both blogs are graphically rich with innovative maps and photos.

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Les Rowntree
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Martin Lewis is a Senior Lecturer in History at Stanford University, where he teaches courses on global geography. He has conducted extensive research on environmental geography in the Philippines and on the intellectual history of world geography. His publications include *Wagering the Land: Ritual, Capital, and Environmental Degradation in the Cordillera of Northern Luzon, 1900–1986* (1992), and, with Karen Wigen, *The Myth of Continents: A Critique of Metageography* (1997). Dr. Lewis has traveled extensively in East, South, and Southeastern Asia. His current research focuses on the geography of languages. In April 2009, Dr. Lewis was recognized by *Time* magazine as one of America's most favorite lecturers.



Marie Price is a Professor of Geography and International Affairs at George Washington University. A Latin American specialist, Dr. Price has conducted research in Belize, Mexico, Venezuela, Panama, Cuba, and Bolivia. She has also traveled widely throughout Latin America and Sub-Saharan Africa. Her studies have explored human migration, natural resource use, environmental conservation, and sustainability. In 2016 she became the President of the American Geographical Society, the oldest national geography organization in the country dedicated to the advancement of geographic research for a more sustainable future. Dr. Price brings to *Diversity Amid Globalization* a special interest in regions as dynamic spatial constructs that are shaped over time through both global and local forces. Her publications include the co-edited book *Migrants to the Metropolis: The Rise of Immigrant Gateway Cities* (2008) and numerous academic articles and book chapters.



William Wyckoff is a Professor of Geography in the Department of Earth Sciences at Montana State University, specializing in the cultural and historical geography of North America. He has written and co-edited several books on North American settlement geography, including *The Developer's Frontier: The Making of the Western New York Landscape* (1988), *The Mountainous West: Explorations in Historical Geography 1860–1940* (1995) (with Lary M. Dilsaver), *Creating Colorado: The Making of a Western American Landscape 1860–1940* (1999), and *On the Road Again: Montana's Changing Landscape* (2006). His most recent book, *How to Read the American West: A Field Guide*, appeared in the Weyerhaeuser Environmental Books series and was published in 2014 by the University of Washington Press. A World Regional Geography instructor for 27 years, Dr. Wyckoff emphasizes in the classroom the connections between the everyday lives of his students and the larger global geographies that surround them and increasingly shape their future.

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Instructor Resource Materials (0134610873)

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- All textbook images as JPEGs, PDFs, and PowerPoint™ Presentations
- Pre-authored Lecture Outline PowerPoint™ Presentations, which outline the concepts of each

chapter with embedded art and can be customized to fit instructors' lecture requirements

- CRS "Clicker" Questions in PowerPoint™ format, which correlate to the book's learning objectives, the U.S. National Geography Standards, chapter-specific learning outcomes, and Bloom's Taxonomy
- The TestGen software and *Test Bank* questions
- Electronic files of the *Instructor Resource Manual* and *Test Bank*

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Diversity Amid Globalization

World Regions, Environment, Development



1

Concepts of World Geography



Seeking Shelter Each week thousands of refugees and migrants cross this narrow passage of the Aegean Sea between the island of Lesbos in Greece and the Turkish mainland. Smugglers launch rickety boats and rafts filled with people into the sea with the hopes that Greek patrol boats pluck them out of the water. Many of the rescued people, including children, are brought to shore in Greece. From there, most try to make their way to other countries in Europe, especially Germany. This ongoing wave of refugees and migrants, especially from the conflict in Syria, is one of the largest humanitarian crises facing Europe and the global community today.

Migration is a fundamental expression of human adaptation, a response to crisis, or an aspiration for a better or different life. Globalization, it can be argued, has contributed to increased migration as more parts of the world are connected through technology, trade, and the movement of people. Although the movement of goods and capital across international boundaries has become easier, however, the international movement of people across these same borders has been more challenging. There are stories of migrants fleeing conflict, poverty, or prejudice, be it from Burma, Haiti, or other countries around the world. Yet there is growing reluctance to allow these newcomers to settle in their destination countries.

The impasse in Europe regarding the movement and settlement of refugees fleeing the conflict in Syria is one of many such examples. Hoping for a resolution to the conflict, but tired of living in refugee camps, many Syrian refugees have taken to boats or trails to reach Western Europe, encountering both hostility and hospitality along the way. National governments have become deeply divided as to the correct response to this surge of immigrants, and in some cases, the very structure of the European Union (EU) has been tested, as demonstrated by the United Kingdom's vote to leave the EU in 2016. Despite the EU's cosmopolitan reputation and professed tolerance of cultural expression, it seems that living with diversity, a global mix of different peoples, languages, and religions, is not always easy or even desired.

Diversity Amid Globalization investigates these global patterns and interactions through the lens of geography. The analysis is by world regions, which invites consideration of long-term cultural and environmental practices that characterize and shape these distinct areas. Yet we contend that *globalization*—the increasing interconnectedness of people and places through converging economic, political, and cultural activities—is one of the most important forces reshaping the world today. Pundits

say globalization is like the weather: It's everywhere, all the time. It is a ubiquitous part of our lives and landscapes that is both beneficial and negative, depending on our needs and point of view. While some people in some places embrace the changes brought by globalization, others resist and push back, seeking refuge in traditional habits and places. Thus, globalization's impact is highly uneven across space, which invites the need for a geographic (or spatial) understanding. As you will see in the pages that follow, geographers, who study places and phenomena around the globe and seek to explain the similarities and differences among places, are uniquely suited to analyze the impacts of globalization in different countries and world regions.

As a counterpoint to globalization, *diversity* refers to the state of having different forms, types, practices, or ideas, as well as the inclusion of distinct peoples, in a particular society. We live on a diverse planet with a mix of languages, cultures, environments, political ideologies, and religions that influence how people in particular localities view the world. At the same time, the intensification of communication, trade, travel, and migration that result from global forces have created many more settings in which people from vastly different backgrounds

Globalization's impact is highly uneven across space, which invites the need for a geographic (or spatial) understanding.

live, work, and interact. For example, in metropolitan Toronto, Canada's largest city, over half of the area's 5.5 million residents were born in another country. Increasingly, modern diversifying societies must find ways to build social cohesion among distinct peoples. Confronting diversity can challenge a society's tolerance, trust, and sense of shared belonging. Yet, diverse societies also stimulate creative exchanges and new understandings that are beneficial, building greater inclusion. The regional chapters that follow provide examples of the challenges and opportunities that diverse societies in an interconnected world experience today. We begin by introducing the discipline of geography, and then examine this ongoing diversity in the context of globalization from a geographer's perspective.

LEARNING Objectives

After reading this chapter you should be able to:

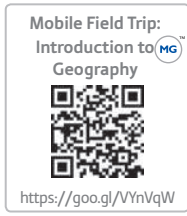
- 1.1 Describe the conceptual framework of world regional geography.
- 1.2 Identify the different components of globalization, including controversial aspects, and list several ways in which globalization is changing world geographies.
- 1.3 Summarize the major tools used by geographers to study Earth's surface.

- 1.4 Explain the concepts and metrics used to document changes in global population and settlement patterns.
- 1.5 Describe the themes and concepts used to study the interaction between globalization and the world's cultural geographies.
- 1.6 Explain how different aspects of globalization have interacted with global geopolitics from the colonial period to the present day.
- 1.7 Identify the concepts and data important to documenting changes in the economic and social development of more and less developed countries.

Geography Matters: Environments, Regions, Landscapes

Geography is a foundational discipline, inspired and informed by the long-standing human curiosity about our surroundings and how we are connected to the world. The term *geography* has its roots in the Greek word for “describing the Earth,” and

this discipline is central to all cultures and civilizations as humans explore their world, seeking natural resources, commercial trade, military advantage, and scientific knowledge about diverse environments. In some ways, geography can be compared to history: Historians describe and explain what has happened over time, whereas geographers describe and explain the world's spatial dimensions—how it differs from place to place.



Given the broad scope of geography, it is no surprise that geographers have different conceptual approaches to investigating the world. At the most basic level, geography can be broken into two complementary pursuits: *physical* and *human geography*. **Physical geography** examines climate, landforms, soils, vegetation, and hydrology. **Human geography** concentrates on the spatial analysis of economic, social, and cultural systems.

A physical geographer, for example, studying the Amazon Basin of Brazil, might be interested primarily in the ecological diversity of the tropical rainforest or the ways in which the destruction of that environment changes the local climate and hydrology. A human geographer, in contrast, would focus on the social and economic factors explaining the migration of settlers into the rainforest, or on the tensions and conflicts over resources between new settlers and indigenous peoples. Both human and physical geographers share an interest in human–environment dynamics, asking how humans transform the physical environment and how the physical environment influences human behaviors and practices. Thus, they learn that Amazon residents may depend on fish from the river and plants from the forest for food (Figure 1.1), but raise crops for export and grow products such as black pepper or soy rather than wheat, because wheat does poorly in humid tropical lowlands.

Another basic division in geography is the focus on a specific topic or theme as opposed to analyzing a specific place or a region. The theme approach is termed **thematic** or **systematic geography**, while the regional approach is called **regional geography**. These two perspectives are

▼ **Figure 1.1** Rio Itaya Settlement in the Amazon Basin A woman and child peer out the doorway of their newly built waterfront home near Iquitos, Peru. Settlers in the Amazon Basin have relied upon the vast forests and rivers of this region for their food, livelihood, and transport.



complementary and by no means mutually exclusive. This textbook, for example, utilizes a regional scheme for its overall organization, dividing Earth into 12 separate world regions. It then presents each chapter thematically, examining the topics of environment, population and settlement, cultural differentiation, geopolitics, and socioeconomic development in a systematic way. In doing so, each chapter combines four kinds of geography: physical, human, thematic, and regional geography.

Areal Differentiation and Integration

As a spatial science, geography is charged with the study of Earth's surface. A central theme of that responsibility is describing and explaining what distinguishes one piece of the world from another. The geographical term for this is **areal differentiation** (*areal* means “pertaining to area”). Why is one part of Earth humid and lush, while another, just a few hundred kilometers away, is arid (Figure 1.2)?

Geographers are also interested in the connections between different places and how they are linked. This concern is one of **areal integration**, or the study of how places interact with one another. An example is the analysis of how and why the economies of Singapore and the United States are closely intertwined, even though the two countries are situated in entirely different physical, cultural, and political environments. Questions of areal integration are becoming increasingly important because of the new global linkages inherent in globalization.

Scale: Global to Local All systematic inquiry has a sense of *scale*, whatever the discipline. In biology, some scientists study the very small units such as cells, genes, or molecules, while others take a larger view, analyzing plants, animals, or whole ecosystems. Geographers also work at different scales. While one may concentrate on analyzing a local landscape—perhaps a single village in southern China—

another might focus on the broader regional picture, examining all of southern China. Other geographers do research on a still larger global scale, perhaps studying emerging trade networks between southern India's center of information technology in Bangalore and North America's Silicon Valley, or investigating how the Indian monsoon might be connected to, and affected by, the Pacific Ocean's El Niño phenomenon. But even though geographers may work at different scales, they never lose sight of the interactivity and



▲ **Figure 1.2 Areal Differentiation** This satellite photo of oasis villages on the southern slope of Morocco's Atlas Mountains is a classic illustration of areal differentiation, or how landscapes can differ significantly within short distances. The dark green bands are irrigated date palm and vegetable fields, watered by rivers that rise in the high mountains and then flow southward into the Sahara Desert. Because irrigated fields along the rivers are precious land, the village settlements are nearby in the dry areas.

connectivity among local, regional, and global scales. They will note the ways that the village in southern China might be linked to world trade patterns or how the late arrival of the monsoon could affect agriculture and food supplies in Bangladesh.

The Cultural Landscape: Space into Place

Humans transform space into distinct places that are unique and heavily loaded with significance and symbolism. **Place**, as a geographic concept, is not just the characteristics of a location but also encompasses the meaning that people give to such areas, as in the sense of place. This diverse fabric of *placefulness* is of great interest to geographers because it tells us much about the human condition throughout the world. Places can tell us how humans interact with nature and how they interact among themselves; where there are tensions and where there is peace; where people are rich and where they are poor.

A common tool for analyzing place is the concept of the **cultural landscape**, which is the tangible, material expression of human settlement, past and present. Thus, the cultural landscape visually reflects the most basic human needs—shelter, food, and work. Additionally, the cultural landscape acts to bring people together (or keep them apart) because it is a marker of cultural values, attitudes, and symbols. As cultures vary greatly around the world, so do cultural landscapes (**Figure 1.3**).

Geographers are also interested in spatial analysis and the concept of space. **Space** represents a more abstract, quantitative, and model-driven approach to understanding how objects

and practices are connected and impact each other. For example, a geographer interested in economic development may measure income inequality and examine how it differs from one location to another to better understand how poverty might be addressed. Similarly, a geographer interested in the impacts of climate change might model the effects of sea-level change on coastal settlements based on different warming scenarios. An appreciation for space and place is critical in understanding geographic change.

Regions: Formal and Functional

The human intellect seems driven to make sense of the universe by lumping phenomena together into categories that emphasize similarities. Biology has its taxa of living organisms, while history marks off eras and periods of time. Geography, too, organizes information about the world into units of spatial similarity called **regions**—each a contiguous bounded territory that shares one or many common characteristics.

Sometimes, the unifying threads of a region are physical, such as climate and vegetation, resulting in a regional designation like the *Sahara Desert* or *Siberia*. Other times, the threads are more complex, combining economic and social traits, as in the use of the term *Rust Belt* for parts of the northeastern United States that have lost industry and population. Think of a region as spatial shorthand that provides

▼ **Figure 1.3 The Cultural Landscape** Despite globalization, the world's landscapes still have great diversity, as shown by this village and its surrounding rice terraces on the island of Luzon, Philippines. Geographers use the cultural landscape concept to better understand how people interact with their environment.



► **Figure 1.4 U.S. Rust Belt** The rust belt is an example of a functional region. It is delimited to show an area that has lost manufacturing jobs and population over the last four decades. By constructing this region, a set of functional relationships is highlighted. **Q: In what formal and functional regions do you live?**



an area with some signature characteristic that sets it apart from surrounding areas. In addition to delimiting an area, generalizations about society or culture are often embedded in these regional labels.

Geographers designate two types of regions: formal and functional. **Formal regions** can be defined by some aspect of physical form, for example a climate type or mountain range such as Appalachia. Cultural features, such as the dominance of a particular language or religion, can also be used to define formal regions. Belgium, for example, can be divided into Flemish-speaking Flanders and French-speaking Wallonia. Many of the maps in this book denote formal regions. In contrast, a **functional region** is one where a certain activity (or cluster of activities) takes place. The earlier example of North America's Rust Belt is such a region because it encompasses a triangle from Milwaukee to Cincinnati to Syracuse, where manufacturing dominated through the 1960s and then experienced steady decline as factories shut down and people left (Figure 1.4). Geographers designate functional

regions to show associations or activities that can change with distance, such as the spatial extent of a sports team's fan base or the commuter shed of a major metropolitan area such as Los Angeles. Delimiting such regions can be valuable for marketing, planning transportation, or simply thinking about the ways that people identify with an area.

Regions can be defined at various scales. In this book, we divide the world into 12 world regions based on formal characteristics such as physical features, language groups, and religious affiliations, but also defined by functional characteristics such as trade groups and regional associations (Figure 1.5). Some of these regional groupings are in

▼ **Figure 1.5 World Regions** The boundaries shown here are the basis for the 12 regional chapters in this book. Countries or areas within countries that are treated in more than one chapter are designated on the map with a striped pattern. For example, western China is discussed in both Chapter 10, Central Asia, and Chapter 11, East Asia. Also, three countries on the South American continent are discussed as part of the Caribbean region because of their close cultural similarities to that island region.



common use, such as Europe or East Asia. Ways of understanding and characterizing these regions have often evolved over centuries. But the boundaries of these regions can and do shift. For example, during the Cold War it made sense to divide Europe into east and west, with eastern Europe closely linked to the Soviet Union. With the 1991 collapse of the Soviet Union and the expansion of the European Union in the 2000s, that divide became less meaningful. Working at the world regional scale invariably creates regions that are not homogeneous, with some states fitting better into regional stereotypes than others. Yet understanding world regional formations is an important way to explore the impacts of globalization on environments, cultures, politics, and development, the focus of the next section.

REVIEW

- 1.1 Explain the difference between areal differentiation and areal integration.
- 1.2 How is the concept of place different from space in terms of geographic understanding and analysis?
- 1.3 How do functional regions differ from formal regions?

■ **KEY TERMS** geography, physical geography, human geography, thematic geography (systematic geography), regional geography, areal differentiation, areal integration, place, cultural landscape, space, regions, formal region, functional region

Converging Currents of Globalization

One of the most important features of the 21st century is **globalization**—the increased interconnectedness of people and places around the world. Once-distant regions and cultures are now more and more linked through commerce, communications, and travel. Although earlier forms of globalization existed, especially during Europe's colonial period, the current degree of planetary integration is stronger than ever. In fact, many observers argue that contemporary globalization is the most fundamental reorganization of the world's socioeconomic structure since the Industrial Revolution (see *Exploring Global Connections: A Closer Look at Globalization*).

Economic activities may be the major driving force behind globalization, but the consequences affect all aspects of land and life: human settlement patterns, cultural attributes, political arrangements, and social development are all undergoing profound change. Because natural resources are now global commodities, the planet's physical environment is also impacted by globalization. Financial decisions made thousands of miles away now affect local ecosystems and habitats, often with far-reaching consequences for Earth's health and sustainability. For example, gold mining in the Peruvian Amazon is profitable for the corporations involved and even for individual miners, but it may ruin biologically rich ecosystems and threaten indigenous communities.

The Environment and Globalization

The expansion of a globalized economy is creating and intensifying environmental problems throughout the world. Transnational firms conducting business through international subsidiaries disrupt ecosystems around the globe with their incessant search for natural resources and manufacturing sites. Landscapes and resources previously used by only small groups of local peoples are now considered global commodities to be exploited and traded in the world marketplace.

On a larger scale, globalization is aggravating worldwide environmental problems such as climate change, air and water pollution, and deforestation. Yet it is only through global cooperation, such as the United Nations treaties on biodiversity protection or greenhouse gas reductions, that these problems can be addressed. Environmental degradation and efforts to address it are discussed in detail in Chapter 2.

Globalization and Changing Human Geographies

Globalization changes cultural practices. The spread of a global consumer culture, for example, often accompanies globalization and frequently hurts local economies. It sometimes creates deep and serious social tensions between traditional cultures and new, external global culture. Television shows and movies available via satellite, along with online videos and social media such as Facebook and Twitter, implicitly promote Western values and culture that are then imitated by millions throughout the world (Figure 1.6).

▼ **Figure 1.6 Global Communications** The effects of globalization are everywhere, even in remote villages in developing countries. Here, in a small village in southwestern India, a rural family earns a few dollars a week by renting out viewing time on its globally linked television set.





Exploring Global Connections

A Closer Look at Globalization

Globalization comes in many shapes and forms as it connects far-flung people and places. Many of these interactions are common knowledge, such as the global reach of multinational corporations. Others are more complex and sometimes rather surprising. Who would expect to find scores of Bosnian refugees reshaping the economy and society of St. Louis, Missouri? Would you have predicted that the world's busiest international air traffic hub is in the United Arab Emirates?

Indeed, global connections are ubiquitous and often complex—so much so that an understanding of the many different shapes, forms, and scales of these interactions is a key component of the study of world geography. To complement that study, each chapter of this book contains an *Exploring Global Connections* sidebar that presents a globalization case study.

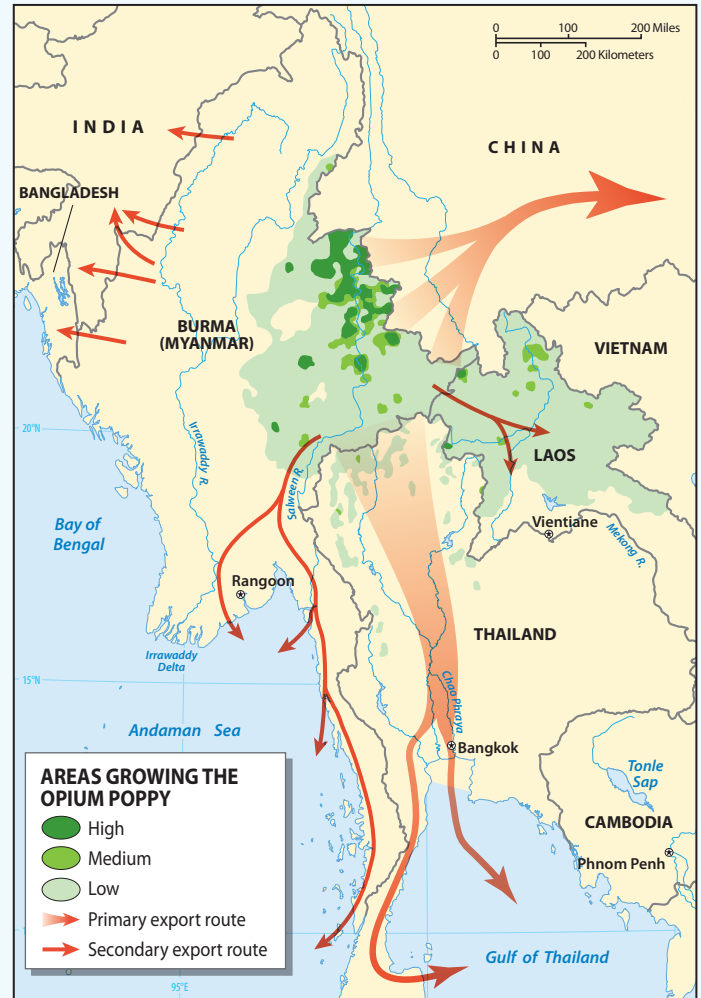
The Chapter 9 sidebar, for example, describes the potential for new trade routes through the Arctic. Other examples include international cooperation and competition at the North and South poles (Chapter 2); the growth of ecotourism in Costa Rica (Chapter 4), and Southeast Asia's resurging opium trade (Chapter 13) (Figure 1.1.1). A Google Earth virtual tour supplements each sidebar.

Google Earth Virtual Tour Video

<http://goo.gl/Uorj2U>

1. Consider complex global connections based on your own experiences. For example, what item from another part of the world did you buy today, and how did it get to your store?
2. Now choose a foreign place in a completely different part of the world, either a city or a rural village, then suggest how globalization affects the lives of people in that place.

► **Figure 1.1.1 Golden Triangle** This area of Southeast Asia is a major production zone for opium poppies, the source of heroin. Export routes link rural villages to markets for the drug throughout the world.



Fast-food franchises are changing—some would say corrupting—traditional diets, with explosive growth in most of the world's cities. Although these foods may seem harmless to North Americans because of their familiarity, they are an expression of deep cultural changes for many societies and are also generally unhealthy and environmentally destructive. Yet some observers contend that even multinational corporations have learned to pay attention to local contexts. **Glocalization** (which combines globalization with locale) is the process of modifying an introduced globalized product or service to accommodate local tastes or cultural practices. For example, a McDonald's in Japan may serve shrimp burgers along with Big Macs.

Although the media give much attention to the rapid spread of Western consumer culture, nonmaterial culture is also dispersed and homogenized through globalization. Language is an obvious example—American tourists in far-flung places are often startled to hear locals speaking an English made up primarily of movie or TV clichés. However, far more than speech is involved, as social values also are

dispersed globally. Changing expectations about human rights, the role of women in society, and the intervention of nongovernmental organizations are also expressions of globalization that may have far-reaching effects on cultural change.

In return, cultural products and ideas from around the world greatly impact U.S. culture. The large and diverse immigrant population in the United States has contributed to heightened cultural diversity and exchange. The internationalization of American food and music and the multiple languages spoken in U.S. cities are all expressions of globalization (Figure 1.7).

Globalization also clearly influences population movements. International migration is not new, but increasing numbers of people from all parts of the world are now crossing national boundaries, legally and illegally, temporarily and permanently. The United Nations (UN) estimates that there are nearly 250 million immigrants in the world (people who are living in a country other than their country of birth). Figure 1.8 shows the major migration flows from