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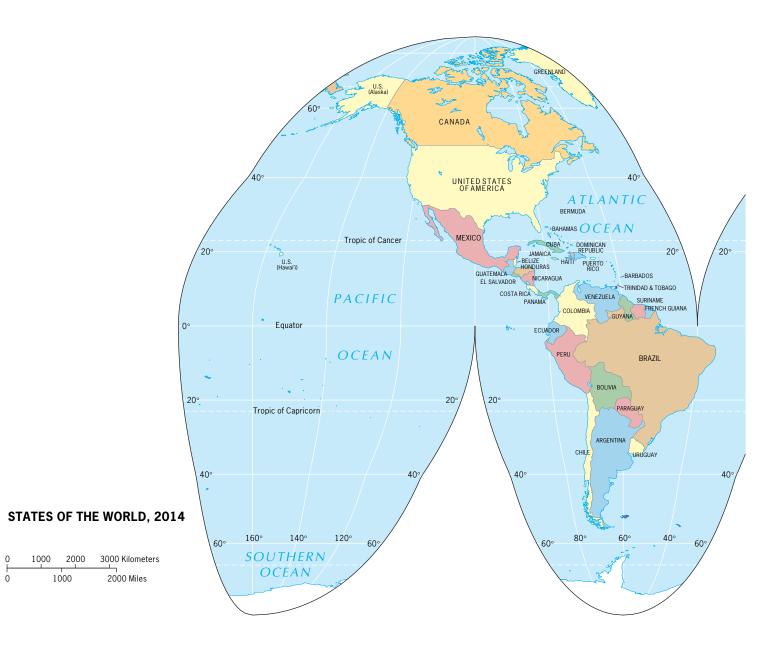
SIXTEENTH EDITION

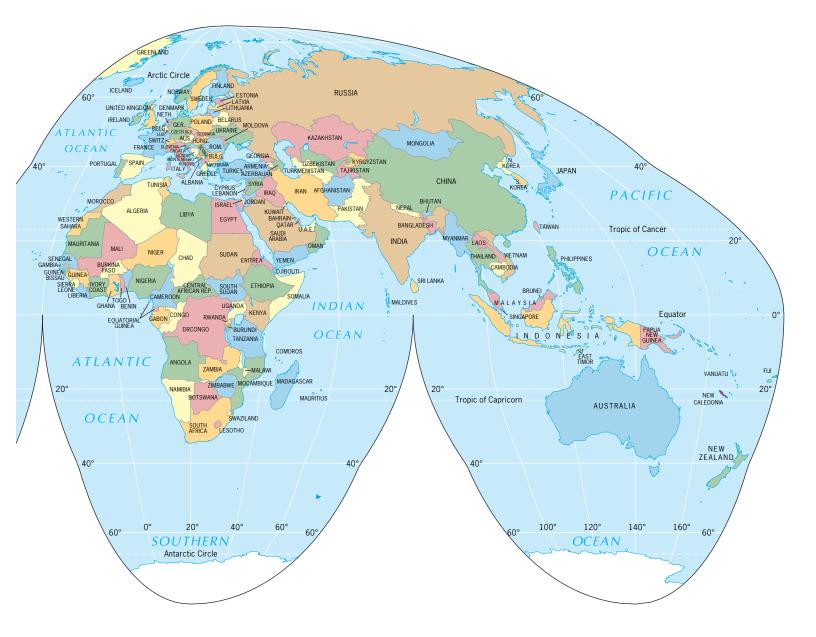
Nation in Peril

H. J. de Blij 🔷 Peter O. Muller 🔹 Jan Nijman



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GEOGRAPHY

REALMS, REGIONS, AND CONCEPTS

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Front cover photo: © Jan Nijman Back cover photos: © H. J. de Blij

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This book is printed on acid-free paper. ∞

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Library of Congress Cataloging-in-Publication Data

De Blij, Harm J. Geography: realms, regions, and concepts/H. J. de Blij, Peter O. Muller, and Jan Nijman.—Sixteenth edition. pages cm. Includes index. ISBN 978-1-118-67395-9 (hardback)
1. Geography—Textbooks. I. Peter O. Muller. II. Jan Nijman. III. Title. G128.D42 2013 910—dc23

2013024700

978-1-118-67395-9 (Main Book ISBN) 978-1-118-70760-9 (Binder-Ready Version ISBN)

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

or the past four decades, Geography: Realms, Regions, and Concepts has reported (and sometimes anticipated) trends in the discipline of Geography and developments in the world at large. In fifteen preceding editions, Regions, as the book has come to be called, has explained the contemporary world's geographic realms (the largest regional entities on the face of the Earth) and their natural environments and human dimensions. In the process, this book has become an introduction to Geography itself, the discipline that links the study of human societies and natural environments. We look at the ways people have organized their living space, adapted to changing social as well as environmental circumstances, and continue to confront forces beyond their control ranging from globalization to climate change. From old and still relevant concepts to new and untested ideas, Regions provides geographic perspective on our transforming world.

The book before you, therefore, is an information highway to geographic literacy. The first edition appeared in 1971, at a time when school geography in the United States (though not in Canada) was a subject in decline. It was a precursor of a dangerous isolationism in America, and geographers foresaw the looming cost of geographic illiteracy. Sure enough, the media during the 1980s began to report that polls, public surveys, tests, and other instruments were recording a lack of geographic knowledge at a time when our world was changing ever faster and becoming more competitive by the day. Various institutions, including the National Geographic Society, banks, airline companies, and a consortium of scholarly organizations, mobilized to confront an educational dilemma that had resulted substantially from a neglect of the very topics this book is about. Concern about geographic literacy and about the need for knowledge of the world around us continues to this day.

A useful discussion of such commonplace topics as globalization, and of popular misconceptions such as the "flat world" and the "death of distance," means that we must know the different parts of the world, the interrelated components that together make up the whole. This goes far beyond description or memorization. In each of the chapters of this book, we ask fundamental questions about the role of geography in the ongoing social, economic, and political developments in that particular realm. Geography helps to understand the dynamic differences among realms and regions and *why* they develop the way they do. Each chapter offers rich regional descriptions alongside critical analyses.

Knowing and understanding world geography is not just an academic exercise. You will find that much of what you encounter in this book is of immediate, practical value to you—as a citizen, a consumer, a traveler, a voter, a job-seeker. North America is a geographic realm with ever-intensifying global interests and involvements. Those interests and involvements require countless, often instantaneous decisions, whether they are concerned with international business, worldwide media, affairs of state, or disaster relief. Such decisions must be based on the best possible knowledge of the world beyond our continent. That knowledge can be gained by studying the layout of our world, its environments, societies, resources, policies, traditions, and other properties—in short, its regional geography.

REALMS, REGIONS . . . AND CONCEPTS

This book begins with an introductory chapter followed by 12 sets of chapters that each cover one of the world's major geographic realms and their constituent regions. The Introduction discusses the world as a whole, outlining the physical stage on which the human drama is being played out, providing environmental frameworks, demographic data, political background, and economic-geographical context. In the remaining chapters, we have divided the world into 12 major geographic realms and these are in turn subdivided into smaller regions. We explain why the realms and regions are delineated the way they are, we describe their prevailing geographic features, and we examine recent events around the world in their proper geographic context.

Along the way, we introduce more than 150 geographic concepts placed in their regional settings. Most of these concepts are indeed primarily geographical, but others are ideas about which, we believe, students of geography should have some knowledge. Although such concepts are listed on the opening page of every chapter, we have not, of course, enumerated every geographic notion used in that chapter. Many colleagues, we suspect, will want to make their own realmconcept associations, and as readers will readily perceive, the book's organization is quite flexible. It is possible, for example, to focus almost exclusively on substantive regional material or, alternatively, to concentrate mainly on conceptual issues.

The A-B Structure of the Regional Chapters

This sixteenth edition of *Regions* continues the formal separation of **A** and **B** chapters that was introduced in the fifteenth edition, an innovation that received substantial positive feedback from our users. As the table of contents shows, each of the world's geographic realms (with the exception of the Austral and Pacific Realms) is treated in a *pair* of chapters: **A** chapters discuss broad geographic features at the scale of the entire realm; **B** chapters provide a more detailed analysis at the scale of the realm's constituent regions and countries.

This structure increases flexibility for the user because it offers the option of customizing reading assignments. As anyone who has taught or taken a course in World Regional Geography knows, the subject is complex, the world is still a very large and highly diverse place, and semesters are short. In principle, each of the **A** or **B** chapters can be read in isolation. If users prefer to reduce reading assignments on one or more realms, they might concentrate on the **A** chapters for a main overview of the geography of the realm; the opposite approach focused on the **B** chapters is possible as well. Neither scale (realm or region) can be said to be more important than the other. They are most revealing, of course, in terms of their complementary nature: one informs the other from the general to the specific, from the whole to its constituent parts, from the global to the local.

The second advantage of this A-B structure is more substantive and is anchored in current disciplinary trends. Scale, along with region, is one of the most crucial general concepts in Geography. Understanding geographic events almost always demands a multi-scalar perspective. Using the A-B structure, we consistently discuss processes at two different scales. First we employ the broader scale of the realm to appreciate, for example, matters of geopolitics or economic integration or core-periphery relationships-developments that unfold and project across an entire realm or major parts of it. Think, for example, about the realmwide ramifications of the Arab Spring movement. Subsequently, we "zoom in" on the regions nested within the realm to consider developments at a finer resolution. Think, for example, of Egypt's ongoing political challenges since the forced 2011 resignation of former President Mubarak. Typically, B chapters facilitate a closer look at the role of individual countries and national cultures (and, where necessary, their internal subdivisions).

The **A-B** structure should not be regarded as a rigid mechanism that separates geographic reality into two 'fixed' scales. Geography is a dynamic field; there is continuity in some ways, but change abounds. Geographic space is continuously reorganized and reshaped. The study of realms and regions is more based on "sliding" scales, from the level of the realm downward. **A** chapters typically deal with broader-scale issues; **B** chapters provide more close-up analysis. Thus international issues that do not always involve the entire realm may be discussed in either **A** or **B** chapters, or both (e.g., India-Pakistan relations within the South Asian realm).

Voice From the Region

Another new feature that was introduced in the fifteenth edition and that met with considerable approval from the readers is the boxed vignette entitled *Voice From the Region*. This feature provides a platform to let people from each geographic realm speak directly to the reader—a local voice, unfiltered, that presents a reflection on their corner of the world as seen through their own eyes. Located in each **B** chapter (plus Chapters 11 and 12), these vignettes, accompanied by the name and a photo of the individual providing the local perspective, focus on important current events ranging from Singapore's tenuous absorption of large numbers of Chinese immigrants to Egypt's stalled political reforms in the aftermath of its Arab Spring. Each *Voice* was solicited by the authors specifically for this purpose. It provides a useful tool for teachers to initiate class discussion about regional issues and perspectives, and it helps students identify more closely with developments and people across the spectrum of world regions.

NEWS ABOUT THE SIXTEENTH EDIITON

One of the most fascinating things about Geography is that it exudes a sense of permanence in certain respects (e.g., the natural environment), but in reality things change over time—sometimes quite slowly but at other times abruptly and dramatically. New editions of *Regions* have a reputation for comprehensive and detailed revision, and the sixteenth is a particularly substantial reprise. Occasionally the world changes so fundamentally that interpretations based on earlier understandings are overtaken by new developments forcing us to rethink particular realms, regions, and countries, or even the global system that binds them together. Thus new editions of *Regions* not only contain myriad valuable updates but also reappraisals of the fundamental nature of the world's geography.

The world is undergoing some momentous changes in this decade: (1) widespread, longstanding pessimism concerning Subsaharan Africa's development prospects has rapidly given way to unprecedented hope and anticipation based on robust recent growth in this realm; (2) the European Union has become more disparate than ever-fiscally, economically, and politically-as rising core-periphery tensions weigh down the supranational federal framework; (3) the globally expanding influence and assertiveness of China is being met with increasingly mixed feelings in certain realms and regions; (4) ravenous demand for raw materials on the world market is altering landscapes in a wide range of commodity-rich countries from Mongolia to Australia to Chile; and (5) the Arab Spring, which has been destabilizing regional politics in North Africa and Southwest Asia, but has yet to deliver enduring democratic advances in any country. These developments, among others, have reverberated throughout the world in recent years and continue to transform their respective realms today. We will detail many of these changes, as well as the forces that drive them, in their geographic context as our global regional survey unfolds.

What to Look For

With a revision manuscript totaling tens of thousands of words, countless map modifications, dozens of original photos, and new *From the Field Notes* and other boxes, no summary can adequately encapsulate all that this new edition contains. One special note: we have highlighted the burgeoning outward growth of several of the world's megacities (e.g., São Paulo, Istanbul, Delhi-New Delhi, Tokyo, Moscow, Xian) and expanded the city maps in many of the *Great Cities of the World* boxes to reflect this metropolitanscale urbanization. Now let us turn to some of the high points by chapter. In the **Introduction**, besides various updates, your attention will be drawn to new sections on the use of geography in new media (smartphones, navigational mapping) as well as global population issues and the Earth's carrying capacity. Also look for several new photos and a new *Field Note* on Singapore as a *world-city*.

In **Chapters 1A** and **1B**, contemporary **Europe** is discussed within a core-periphery framework, an approach that could not be more pertinent given today's economic circumstances. The European Union is bigger and economically more disparate than ever and tensions between the crisis-ridden periphery and the core are straining the federalized, supranational framework. As Croatia becomes the EU's 28th member and Latvia joins the eurozone in 2014, Greece remains in a deep fiscal crisis and the United Kingdom is openly questioning the worth of continued EU membership. Germany finds itself increasingly at the center of European integration and power but there, too, voters are indicating that there are limits to their support for needy Union member-countries.

Chapters 2A and **2B**, which cover the **Russian Realm**, emphasize the Russian leadership's desire to revive the country's stature as a global power while internal calls for greater democracy are growing louder. There are continued difficulties with Muslim populations along the southern periphery in the Caucasus region, raising the haunting specter of more terrorism within Russia's borders. Climate change is likely to have a major impact on this gigantic country's northern, Arctic-fronting lowlands, yet Siberia and the Far East are rapidly losing population as their stay is no longer enforced by the government. In this new edition, we have designated eastern Ukraine as a new transition zone, given its large ethnic Russian population as well as its economic and political orientation to Russia.

Chapters 3A and **3B**, covering **North America**, present updated material on the U.S. housing crisis focusing on the geography of negative equity and foreclosures. Adding to the section on the realm's main industrial regions, there is new text on North American high-technology clusters with corresponding new map features. Also note the new map showing Miami's global city connections that reflect the city's role as a major business node in the Western Hemisphere.

In **Chapters 4A** and **4B** on **Middle America**, the emphasis continues on the realm's giant, Mexico, where the drug wars and accompanying violence pose a long-term challenge to national cohesion. Updated maps of the drug conflict display international trafficking, the latest carving up of Mexican turf by rival cartels, and the violent killings that have occurred. Elsewhere, look for new sections on rising, drug-related crime rates in Middle American countries (especially northern Central America) as well as new text on Haiti, plagued by the painfully slow recovery from its disastrous 2010 earthquake, and Cuba, where incremental economic reforms are gradually opening the country to tourism, trade, and investment.

Major portions of Chapters 5A and 5B focus on the impact of the global commodities boom on South America. China's apparently insatiable appetite for raw materials, has resulted in the rapid expansion of the primary economic sectors (mining, agriculture) of such countries as Brazil, Chile, and Peru. This has changed the cultural and economic landscape, sometimes with serious environmental consequences, but also boosted government revenues while stimulating individual industries. Colombia continues to be profoundly affected by illicit cocaine production, exacerbated by the major 'export route' via western Venezuela that remained open following the 2013 death of Hugo Chavez. In 2014, the eyes of the world will be on Brazil when it hosts soccer's World Cup tournament, followed in 2016 by the Rio de Janeiro Olympic Games. This dynamic, fast-rising country intends to showcase its newfound modernity despite the unexpected mid-2013 outbreak of nationwide protests over the government's inattention to the needs of Brazil's enormous lower and middle classes.

Chapters 6A and 6B document one of the biggest stories of the past few years: the emergence of Subsaharan Africa onto the global economic scene. The world's fastest growing national economies are located in this realm and they are reshaping the future prospects of a continent that has for so long been relegated to scenarios of doom. Africa's rapid growth, like South America's, is largely based on the exploitation and exporting of raw materials to China. Chinese investments in the primary sector, infrastructure, and construction are helping to fuel the ongoing transformation. Ironically, this realm's largest economy, South Africa, now finds itself lagging behind in terms of growth rates. There is a new map and accompanying table that cover differential economic growth and raw material dependency across the realm. A new Regional Issue box debates the pros and cons of foreign investments in agriculture (perhaps better known as 'land grabs').

By far, the most volatile realm of this decade is undoubtedly **North Africa/Southwest Asia. Chapters 7A** and **7B** contain new sections on the unfolding of the Arab Spring and how it has played out in different national contexts—supported by an important new map of the geography of national political regimes across the realm. Also look for new text on recent developments in Turkey, Iraq, Somalia, Egypt (with an updated *Voice from the Region* to underscore the continuation of simmering discontent), Mali, and, of course, Syria, whose catastrophic civil war had taken at least 100,000 lives as of mid-2013. The Arab Spring has so far failed to produce tangible democratic progress in any country, although the civil strife unleashed in Libya and Syria swiftly triggered major regional destabilization.

Chapters 8A and **8B** on **South Asia** now focus on: Pakistan's myriad challenges, especially in its unstable Afghanistan border zone; India's fragmented modernization, exhibited by its modest but highly developed IT industry juxtaposed against its vast underdeveloped, inefficient agricultural sector; the precarious India-Pakistan relationship that plays out at a different level among Hindus and Muslims inside India; Sri Lanka's slow and arduous recovery from civil war; the developmental challenges of landlocked Nepal and Bhutan; and the Maldives' potentially fatal struggle with rising sea level as depicted on the book's covers and well as in the new *Voice from the Region*.

Chapters 9A and 9B survey another incredibly dynamic realm, East Asia. If China's influence can now be felt all over the world, its dominance within its home realm is overwhelming. China's own economic geography is quickly changing as well, with the rapid westward expansion of the country's Coastal Core region into the Interior. In the meantime, the gap between rich and poor continues to widen and the Chinese government faces increasing demands from its workforce for higher wages. A new Regional Issue highlights the growing contentiousness of the One-Child-Only policy, and a new section describes how the unprecedented pace of Chinese government-led urbanization has raised questions about the possibility of an equally unprecedented real estate bubble-from the massive, still-empty developments on the outskirts of Tianjin to the entirely new city of Ordos in Inner Mongolia. Internationally, there is growing tension between China and Japan in the East China Sea, and between China and several Southeast Asian states in the South China Sea-while North Korea's belligerence reached new heights in early 2013. Look for an entirely rewritten section on Korea based on an extended 2012 visit of the senior author.

China's aggressive reach into **Southeast Asia**, and the tensions this provokes, are major themes in **Chapters 10A** and **10B**. There are new maps on conflicting claims in the South China Sea as well as on China's growing dominance of this realm's import and export trade (at the expense of Japan and United States). Also look for new text on the influx of affluent mainland-Chinese immigrants into Singapore and their challenged integration; on Indonesia's continued economic rise; and the sudden reopening of Myanmar to the realm and the rest of the world, ending decades of debilitating isolation and brutal repression.

Chapters 11 and 12, because of their limited size, remain single chapters without the **A/B** division. In **Chapter 11**, the **Austral Realm**, we continue our focus on three major themes: the environment (Australia has suffered both dreadful droughts and death-dealing fires, and is now confronted with difficult choices in balancing oil and gas exploitation against environmental protection); aboriginal peoples and their changing role in the modern, globalizing societies of Australia and New Zealand; and Australia's cultural diversification as immigration continues to transform its human geography.

Chapter 12, entitled Pacific Realm and Polar Futures, updates the three Pacific regions, and then turns to the growing impact of humans in (and designs on) both polar zones. In the far southerly latitudes, environmental change is facilitating the entry of thousands of tourists who cruise Antarctic waters and land on the Earth's southernmost shores. And in the northernmost latitudes, climate change has already resulted in the partial and temporary (August/September) opening of the long-frozen waterways of the Arctic Basin's Northeast Passage, along which a record 45 ships sailed through in 2012. Also look for an updated map of the Arctic showing the significant retreat of the polar icecap and for new text on recent technological advances that enable deep-sea mineral exploration in the waters of the Pacific and elsewhere.

This latest edition of *Regions* reflects our continuing commitment to bring to our readers our geographic perspectives on a fast-changing world and its dynamic regional components. Since the previous edition, the author team has spent much time traveling, researching, and lecturing in dozens of locations around the globe. The authors' international involvements are invaluable in the continuation, innovation, and strengthening of *Regions*, which after more than 40 years is still one of the most exciting projects in the domain of college geography textbooks. We trust that you will find this Sixteenth Edition as informative and challenging as you have our earlier ones.

DATA SOURCES

Numerous print and Internet sources were consulted during the updating of this book. For all matters geographical, of course, we consult *The Annals of the Association of American Geographers, The Professional Geographer, The Geographical Review, The Journal of Geography*, and many other academic journals published regularly in North America—plus an array of similar periodicals published in English-speaking countries from Scotland to New Zealand.

All quantitative information was updated to the year of publication and checked rigorously. Hundreds of other modifications were made, many in response to readers' and reviewers' comments. New spellings of place names continue, and we pride ourselves in being a reliable source for current and correct usage.

The statistical data that constitute Appendix B are derived from numerous sources. As users of such data are aware, considerable inconsistency marks the reportage by various agencies, and it is often necessary to make informed judgments about contradictory information. For example, some sources still do not reflect the rapidly declining rates of population increase or life expectancies in AIDS-stricken African countries. Others list demographic averages without accounting for differences between males and females in this regard.

In formulating Appendix B we have used among our sources the United Nations, the Population Reference Bureau, the World Bank, the Encyclopaedia Britannica *Books of the Year*, *The Economist* Intelligence Unit, the *Statesman's Year-Book*, and *The New York Times Almanac*. The urban population figures—which also entail major problems of reliability and comparability—are mainly drawn from the most recent database published by the United Nations' Population Division. For cities of less than 750,000, we developed our own estimates from a variety of sources. At any rate, the urban population figures used here are estimates for 2014 and they represent *metropolitan-area totals* unless otherwise specified.

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ACKNOWLEDGMENTS

Over the 43 years since the publication of the First Edition of *Geography: Realms, Regions, and Concepts*, we have been fortunate to receive advice and assistance from literally thousands of people. One of the rewards associated with the publication of a book of this kind is the steady stream of correspondence and other feedback it generates. Geographers, economists, political scientists, education specialists, and others have written us, often with fascinating enclosures. We make it a point to respond personally to every such letter, and our editors have communicated with many of our correspondents as well. Moreover, we have considered every suggestion made and many who wrote or transmitted their reactions through other channels will see their recommendations in print in this edition.

Student Response

A major part of the correspondence we receive comes from student readers. We would like to take this opportunity to extend our deep appreciation to the several million students around the world who have studied from our books. In particular, we thank the students from more than 150 different colleges across the United States who took the time to send us their opinions. Students told us they found the maps and graphics attractive and functional. We have not only enhanced the map program with exhaustive updating but have added a number of new maps to this Sixteenth Edition as well as making significant changes in many others. Generally, students have told us that they found the pedagogical devices quite useful. We have kept the study aids the students cited as effective: a boxed list of each chapter's key concepts, ideas, and terms (numbered for quick reference in the text itself); a box that summarizes each realm's major geographic qualities; and an extensive and still-expanding Glossary.

Faculty Feedback

Several faculty colleagues from around the world assisted us with earlier editions, and their contributions continue to grace the pages of this book. Among them are:

JAMES P. ALLEN, *California State University, Northridge* Stephen S. Birdsall, *University of North Carolina* J. Douglas Eyre, *University of North Carolina* FANG YONG-MING, *Shanghai, China* EDWARD J. FERNALD, Florida State University RAY HENKEL, Arizona State University RICHARD C. JONES, University of Texas at San Antonio GIL LATZ, Portland State University (Oregon) IAN MACLACHLAN, University of Lethbridge (Alberta) MELINDA S. MEADE, University of North Carolina HENRY N. MICHAEL, late of Temple University (Pennsylvania) CLIFTON W. PANNELL, University of Georgia J. R. VICTOR PRESCOTT, University of Melbourne (Australia) JOHN D. STEPHENS, University of Washington CANUTE VANDER MEER, University of Vermont

Faculty members from a large number of North American colleges and universities continue to supply us with vital feedback and much-appreciated advice. Our publishers arranged several feedback sessions, and we are most grateful to the following professors for showing us where the text could be strengthened and made more precise:

MARTIN ARFORD, Saginaw Valley State University (Michigan) DONNA ARKOWSKI, Pikes Peak Community College (Colorado) GREG ATKINSON, Tarleton State University (Texas) CHRISTOPHER BADUREK, Appalachian State University DENIS BEKAERT, Middle Tennessee State University THOMAS L. BELL, University of Tennessee DONALD J. BERG, South Dakota State University JILL (ALICE) BLACK, Missouri State University KATHLEEN BRADEN, Seattle Pacific University DAVID COCHRAN, University of Southern Mississippi JOSEPH COOK, Wayne County Community College (Michigan) DEBORAH CORCORAN, Southwest Missouri State University MARCELO CRUZ, University of Wisconsin at Green Bay WILLIAM V. DAVIDSON, Louisiana State University LARRY SCOTT DEANER, Kansas State University JEFF DE GRAVE, University of Wisconsin, Eau Claire JASON DITTMER, Georgia Southern University JAMES DOERNER, University of Northern Colorado STEVEN DRIEVER, University of Missouri-Kansas City ELIZABETH DUDLEY-MURPHY, University of Utah DENNIS EHRHARDT, University of Louisiana-Lafayette BRYANT EVANS, Houston Community College WILLIAM FLYNN, Oklahoma State University WILLIAM FORBES, Stephen F. Austin State University (Texas) BILL FOREMAN, Oklahoma City Community College ERIC FOURNIER, Samford University (Alabama) GARY A. FULLER, late of University of Hawai'i RANDY GABRYS ALEXSON, University of Wisconsin-Superior WILLIAM GARBARINO, Community College of Allegheny County (Pennsylvania) HARI GARBHARRAN, Middle Tennessee State University CHAD GARICK, Jones County Junior College JON GOSS, University of Hawai'i DEBRA GRAHAM, Messiah College RICHARD GRANT, University of Miami JASON B. GREENBERG, Sullivan University MARGARET M. GRIPSHOVER, University of Tennessee SARA HARRIS, Neosho County Community College (Kansas) JOHN HAVIR, Ashland Community & Technical College JOHN HICKEY, Inver Hills Community College (Minnesota) SHIRLENA HUANG, National University of Singapore INGRID JOHNSON, Towson State University (Maryland) KRIS JONES, Saddleback College (California) Uwe Kackstaetter, Front Range Community College, Westminster (Colorado) CUB KAHN, Oregon State University

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PERSONAL APPRECIATION

For assistance with the map of North American indigenous people, we are greatly indebted to Jack Weatherford, Professor of Anthropology at Macalester College (Minnesota), Henry T. Wright, Professor and Curator of Anthropology at the University of Michigan, and George E. Stuart, President of the Center for Maya Research (North Carolina). The map of Russia's federal regions could not have been compiled without the invaluable help of David B. Miller, then Senior Edit Cartographer at the National Geographic Society, and Leo Dillon of the Russia Desk of the U.S. Department of State. The map of Russian physiography was updated thanks to the suggestions of Mika Roinila of the State University of New York, College at New Paltz. Special thanks also go to Charles Pirtle, Professor of Geography at Georgetown University's School of Foreign Service for his advice on Chapter 4A; to Bilal Butt (post-doctoral fellow, University of Wisconsin-Madison) for his significant help with Chapter 6A; to Charles Fahrer of Georgia College and State University for his suggestions on Chapter 6B; and to C. Frederick Lohrengel II of Southern Utah University for his advice on Chapter 10A. Enormous gratitude goes to Beth Weisenborn, Virtual Course Coordinator for the Department of Geography at Michigan State University, and all the instructors of Geo 204 (World Regional Geography) for their invaluable suggestions to improve the book. And we are most grateful to Tanya de Blij, who holds a graduate degree in geography from Florida State University and whose computer and editing skills have helped keep our projects on track.

We also record our appreciation to those geographers who ensured the quality of this book's ancillary products. Elizabeth Muller Hames, D.O. (as well as M.A. in Geography, University of Miami) co-authored the original Study Guide. At the University of Miami's Department of Geography and Regional Studies, we are most grateful for the advice and support we received from faculty colleagues Richard Grant, Miguel Kanai, Shouraseni Sen Roy, Ira Sheskin, Justin Stoler, and Diana Ter-Ghazaryan as well as GIS Lab Manager Chris Hanson and our Office Manager Alexis Fernandez, assisted by Isabella Figueroa. Two of these colleagues (Richard and Diana) very kindly supplied us with photos for this edition, as did our friend Elena Grigorieva of the Institute for Complex Analysis of Regional Problems in Birobidzhan, Russia, who recently spent several months in the department as a visiting Fulbright scholar. We also take this opportunity to reconfirm our appreciation of the work done on the ancillaries for earlier editions by Eugene J. Palka, Professor of Geography at the United States Military Academy, West Point, NY, whose vision and enthusiasm contributed importantly to the achievement of our objectives.

We are privileged to work with a team of professionals at John Wiley & Sons that is unsurpassed in the college textbook publishing industry. As authors we are acutely aware of these talents on a daily basis during the crucial production stage, especially the outstanding coordination and leadership skills of Senior Production Editor Janet Foxman. Others who played a leading role in this process were Senior Photo Editor Lisa Gee, Senior Designer Wendy Lai, and Don Larson (ably assisted by Terry Bush and the late Ann Kennedy) of Mapping Specialists, Ltd. in Fitchburg, Wisconsin. For nearly 15 years, we have greatly appreciated the generosity and leadership of Executive Geosciences Editor Ryan Flahive, always the prime mover in launching and guiding this book, and who was so diligently assisted throughout the preparations for this latest edition by Julia Nollen. For this latest revision, we have especially benefitted from the managerial skills and savvy of our College Marketing Manager,

Margaret Barrett, whose boundless enthusiasm and energy perfectly complement the talents of the *Regions* team. We also thank Beth Tripmacher, Darnell Sessoms, Howard Averback, and Harry Nolan for their help and support. Beyond this immediate circle, we acknowledge the support and encouragement we continue to receive from many others at Wiley including Senior Content Manager Micheline Frederick and Publisher Petra Recter.

Most of all, we want to express our continuing appreciation and admiration for the superb efforts of Jeanine Furino of Furino Production, one of the most gifted production editors we have ever encountered. Her organizational skills, extraordinary knowledge, technical prowess, unerring professional instincts, and signal ability to work smoothly with every collaborator, truly make her an indispensable team leader in the challenging process of fashioning this attractive volume (in less than six months!) out of a mountain of text and graphic files, email attachments, sketches, design layouts, and multiple rounds of preliminary pages. We also are indebted to Jeanine for ushering us into the fast-changing digital era of book publishing—a painstaking, still-ongoing effort that began when we first worked together during the 1990s.

Finally, above all else, we express our gratitude to our families for yet again seeing us through the constantly challenging schedule of creating this latest edition of *Regions*.

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June 26, 2013

To Malala Yousafzai

Shot in the head by the Taliban near her school in Pakistan, she survived unimaginable challenges and displayed boundless courage by ascending the global stage and exhorting her classmates and girls everywhere never to stop learning and always to seek the knowledge that gives women power.



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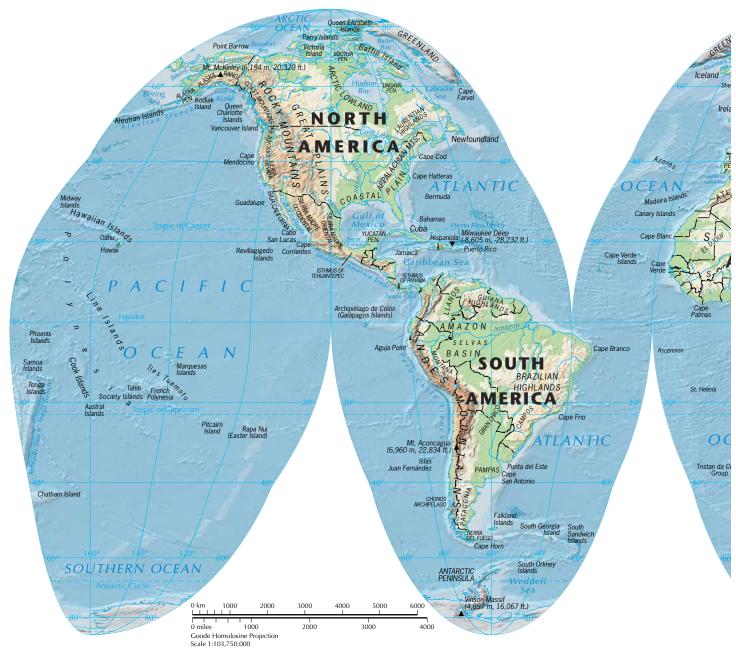
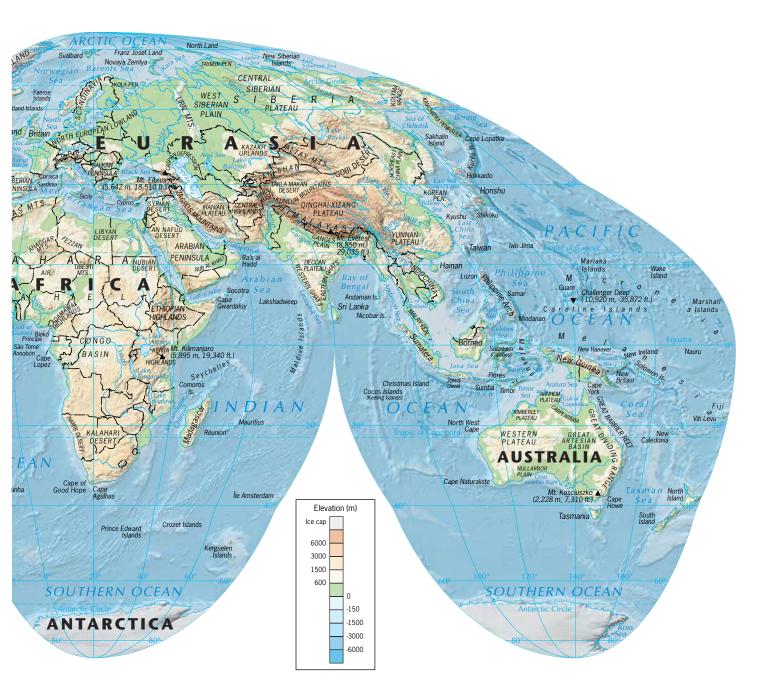


FIGURE G-1

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 Global climate change
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- Globalization and its discontents
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Camel traders in Pushkar, a small town in India's Rajasthan State, relaxing at the end of a November day in 2011. Pushkar features the biggest annual camel fair on Earth, with tens of thousands of camels (and horses) changing hands during the five-day event.

A view of Florence, one of Europe's most iconic, historical cities and birthplace of the Renaissance. The famous Duomo (cathedral) lies at center stage.



hat are your expectations as you open this book? You have signed up for a course that will take you around the world to try to understand how it functions today. You will discover how interesting and unexpectedly challenging the discipline of geography is. We hope that this course, and this book, will open new vistas, bring new perspectives, and help you navigate our increasingly complex and often daunting world.

You could not have chosen a better time to be studying geography. The world is changing on many fronts, and so is the United States. Still the most formidable of all countries, the United States remains a great power capable of influencing nations and peoples, lives and livelihoods from pole to pole. That power confers on Americans the responsibility to learn as much as they can about those nations and livelihoods, so that the decisions of their government representatives are well-informed. But in this respect, the United States is no superpower. Geographic literacy is a measure of international comprehension and awareness, and Americans' geographic literacy ranks low among countries of consequence. That is not a good thing, neither for the United States nor for the rest of the world, because such geographic fogginess tends to afflict not only voters but also the representatives they elect, from the school board to Congress.

A WORLD ON MAPS

Just a casual glance at the pages that follow reveals a difference between this and other textbooks: there are almost as many maps as there are pages. Geography is more closely identified with maps than any other discipline, and we urge you to give as much (or more!) attention to the maps in this book as you do to the text. It is often said that a picture is worth a thousand words, and the same or more applies to maps. When we write "see Figure XX," we really mean it . . . and we hope that you will get into the habit. We humans are territorial creatures, and the boundaries that fence off our 200 or so countries reflect our divisive ways. Other, less visible borders-between religions, languages, rich, and poorpartition our planet as well. When political and cultural boundaries are at odds, there is nothing like a map to summarize the circumstances. Just look, for example, at the map of the African Transition Zone in Chapter 6B: this area's turbulence and challenges are steeped in geography.

Maps in Our Minds

All of us carry in our minds maps of what psychologists call our activity space: the apartment building or house we live in, the streets nearby, the way to school or workplace, the general layout of our hometown or city. You will know what lane to use when you turn into a shopping mall, or where to park at the movie theater. You can probably draw from memory a pretty good map of your hometown. These **mental maps [1]** allow you to navigate your activity space with efficiency, predictability, and safety. When you arrived as a first-year student on a college or university campus, a new mental map will have started forming. At first you needed a GPS, online, or hardcopy map to find your way around, but soon you dispensed with that because your mental map was sufficient. And it will continue to improve as your activity space expands. If a well-formed mental map is useful for decisions in daily life, then an adequate mental map is surely indispensable when it comes to decision making in the wider world. You can give yourself an interesting test. Choose some part of the world, beyond North America, in which you have an interest or about which you have a strong opinion—for example, Israel, Iran, Pakistan, North Korea, or China. On a blank piece of paper, draw a map that reflects your impression of the regional layout there: the country, its neighbors, its internal divisions, major cities, seas (if any), and so forth. That is your mental map of the place. Put it away for future reference, and try it again at the end of this course. You will have proof of your improved mental-map inventory.

The Map Revolution

The maps in this book show larger and smaller parts of the world in various contexts. Some depict political configurations; others display ethnic, cultural, economic, or environmental features. *Cartography* (the making of maps) has undergone a dramatic technological revolution-a revolution that continues. Earth-orbiting satellites equipped with remote sensing technology (special on-board sensors and imaging instruments) transmit remotely sensed information to computers on the surface, recording the expansion of deserts, the shrinking of glaciers, the depletion of forests, the growth of cities, and myriad other geographic phenomena. Earthbound computers possess ever-expanding capabilities not only to organize this information but also to display it graphically. This allows geographers to develop a geographic information system (GIS), bringing information to a monitor's screen that would have taken months to assemble just a few decades ago.

There has also been a map revolution in the astounding proliferation of navigation systems in cars and on mobile phones. Smartphones allow the use of maps on the go, and many of us, in the developed world at least, have become dependent on them to traverse cities, to get to a store or restaurant, even to move around shopping malls. Google, the biggest company in this market, used to aim at cataloguing all of the world's information, but today it is also aiming to map the world in almost unimaginable detail. And the competition is now joined by Nokia and Apple. Whereas the maps on our smartphones allow us to move around more efficiently, the maps in this book are aimed at better *understanding* the world and its constituent parts.

Satellites—even spy satellites—cannot record everything that occurs on the Earth's surface. Sometimes the borders between ethnic groups or cultural sectors can be discerned by satellites—for example, in changing types of houses or religious shrines—but this kind of information tends to require on-the-ground verification through field research and reporting. No satellite view of Iraq could show you the distribution of Sunni and Shia Muslim adherents. Many of the boundaries you see on the maps in this book cannot be observed from space because long stretches are not even marked on the ground. So the maps you are about to "read" have their continued uses: they summarize complex situations and allow us to begin forming durable mental maps of the areas they represent.

There is one other point we should make that is especially important when it comes to world maps: never forget that the world is a sphere, and to project it onto a two-dimensional flat surface must necessarily entail some very significant distortions. Try peeling an orange and flattening the entire peel on a surface—you will have to tear it up and try to stretch it in places to get the job done. Take a look at Figure G-1 and note how the Atlantic Ocean and other segments of the planetary surface are interrupted. You can produce a map like this in many different ways, but you will always end up distorting things. When studying world maps, there is nothing like having a globe at hand to remind you of our three-dimensional reality.

GEOGRAPHY'S PERSPECTIVE

Geography is sometimes described as the most interdisciplinary of disciplines. That is a testimonial to geography's historic linkages to many other fields, ranging from geology to economics and from sociology to political science. And, as has been the case so often in the past, geography is in the lead on this point. Today, interdisciplinary studies and research are more prevalent than ever. The old barriers between disciplines are breaking down.

This is not to suggest that college and university departments are no longer relevant; they are just not as exclusive as they used to be. These days, you can learn some useful geography in economics departments and some good economics in geography departments. But each discipline still has its own particular way of looking at the world.

A Spatial Perspective

Most disciplines focus on one key theme: economics is about money; political science is about power; psychology



"On the descent into Tibet's Lhasa Gongga Airport, I had a great view of the Yarlung Zangbo Valley, its braided stream channels gently flowing toward the distant east. The Yarlung Zangbo is



the highest major river on Earth, running from the Tibetan Plateau into northeastern India where it joins the mighty Brahmaputra River that continues on to Bangladesh where it empties

> into the Indian Ocean. It was mid-October and the water levels were low. The landing strip of the airport can be seen in the center-right of the photo, on the south bank. The airport is quite far from Lhasa, the Tibetan capital, located about 62 kilometers (40 mi) to its southwest. Despite major road and tunnel construction, it is still more than an hour's drive. The airport had to be built away from the city and in this widest part of the valley because it allows the easiest landings and takeoffs in this especially rugged terrain. It lies at 3700 meters above sea level (12,100 ft), one of the highest airports in the world."

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is about the mind; biology is about life. Geography, then, is about space on the Earth's surface. More specifically, geographers are interested in the organization of *terrestrial space*. Social space (cities, buildings, political boundaries, etc.) as well as natural space (climates, terrain, water bodies, etc.) are not randomly configured. Instead, there generally prevails a particular order, regularity, even predictability about the ways in which space is organized. Sometimes it is the deliberate work of human beings and sometimes it is the work of nature, but very often there are particular patterns. Geographers consider these spatial patterns and processes as not only interesting but also crucial to how we live and how we organize our societies. The spatial perspective [2] has defined geography from its beginning.

Environment and Society

There is another glue that binds geography and has done so for a very long time: an interest in the relationships between human societies and the natural (physical) environment. Geography lies at the intersection of the social and natural sciences and integrates perspectives from both, being the only discipline to do so explicitly. This perspective comes into play frequently: environmental change is in the news on a daily basis in the form of worldwide climate change, but this current surge of global warming is only the latest phase of endless atmospheric and ecological fluctuation. Geographers are involved in understanding current environmental issues not only by considering climate change in the context of the past, but also by looking carefully at the implications of global climate change for human societies.

More generally, think of this relationship between humans and their environment as a two-way street. On one hand, human beings have always had a transformative effect on their natural surroundings, from the burning of forests to the creation of settlements. On the other hand, humans have always been heavily dependent on the natural environment, their individual and collective behaviors very much a product of it. There are so many examples that it is hard to know where to begin or when to end: we eat what nature provides and traditional diets vary regionally; rivers allow us to navigate and connect with other peoples—or they serve as natural boundaries like the Rio Grande; wars are fought over access to water or seaports; landlocked countries seem to have different cultures from those of islands; and so on.

At times we are faced with the interrelationship between humans and their environment. For example, humans modify the environment through escalating carbon dioxide emissions (the so-called greenhouse effect) and are subsequently confronted with the need to adjust to rising sea levels. We will always be part of nature, no matter how far technology advances.

Spatial Patterns

Geographers, therefore, need to be conversant with the location and distribution of salient features on the Earth's surface. This includes the natural (physical) world, simpli-

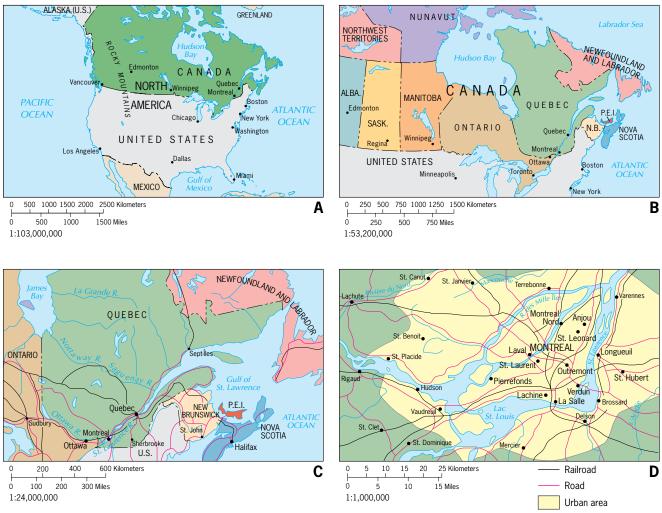
fied in Figure G-1, as well as the human world, and our inquiry will view these in temporal (historical) as well as spatial perspective. We take a penetrating look at the overall geographic framework of the contemporary world, the still-changing outcome of thousands of years of human achievement and failure, movement and stagnation, stability and revolution, interaction and isolation. The spatial structure of cities, the layout of farms and fields, the networks of transportation, the configurations of rivers, the patterns of climate-all these form part of our investigation. As you will find, geography employs a comprehensive spatial vocabulary with meaningful terms such as area, distance, direction, clustering, proximity, accessibility, and many others we will encounter in the pages ahead. For geographers, some of these terms have more specific definitions than is generally assumed. There is a difference, for example, between area (surface) and region, between boundary and frontier, and between place and location. The vocabulary of geography holds some surprises, and what at first may seem to be simple ideas turn out to be complex concepts.

Scale and Scope

One prominent item in this vocabulary is the term scale [3]. Whenever a map is created, it represents all or part of the Earth's surface at a certain level of detail. Obviously, Figure G-1 displays a very low level of detail; it is little more than a general impression of the distribution of land and water as well as lower and higher elevations on our planet's surface. A limited number of prominent features such as the Himalayas and the Sahara are named, but not the Pyrenees Mountains or the Nile Delta. At the bottom of the map you can see that one inch at this scale must represent about 1650 miles of the real world, leaving the cartographer little scope to insert information.

A map such as Figure G-1 is called a *small-scale* map because the ratio between map distance and real-world distance, expressed as a fraction, is very small at 1:103,750,000. Increase that fraction (i.e., zoom in), and you can represent less territory-but also enhance the amount of detail the map can represent. In Figure G-2, note how the fraction increases from the smallest (1:103,000,000) to the largest (1:1,000,000). Montreal, Canada is just a dot on Map A but an urban area on Map D. Does this mean that world maps like Figure G-1 are less useful than larger-scale maps? It all depends on the purpose of the map. In this chapter, we often use world maps to show global distributions as we set the stage for the more detailed discussions to follow. In later chapters, the scale tends to become larger as we focus on smaller areas, even on individual countries and cities. But whenever you read a map, be aware of the scale because it is a guide to its utility.

The importance of the scale concept is not confined to maps. Scale plays a fundamental role in geographic research and in the ways we think about geographic problems: scale in terms of *level of analysis*. This is sometimes



EFFECT OF SCALE

FIGURE G-2

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referred to as *operational scale*, the scale at which social or natural processes operate or play out. For instance, if you want to investigate the geographic concentration of wealth in the United States, you can do so at a range of scales: within a neighborhood, a city, a county, a State,* or at the national level. You choose the scale that is the most appropriate for your purpose, but it is not always that straightforward. Suppose you had to study patterns of ethnic segregation: what do you think would be the most relevant scale(s)?

In this book, our main purpose is to understand the geography of the world at large and how it works, and so, inevitably, we must deal with large spatial entities. Our focus is on the world's realms and on the main regions within those realms, and in most cases we will have to forego analyses at a finer scale. For our purposes, it is the big picture that matters most.

WORLD GEOGRAPHIC REALMS

Ours is a globalized, interconnected world, a world of international trade and travel, migration and movement, tourism and television, financial flows and Internet traffic. It is a world that, in some contexts, has taken on the properties of a "global village"—but that village still has its neighborhoods. Their names are Europe, South America, Southeast Asia, and others familiar to us all. Like the neighborhoods of a city or town, these global neighborhoods may not have sharply defined borders, but their persistence, after tens of thousands of years of human dispersal, is beyond doubt. Geographers call such global neighborhoods **geographic realms [4]**. Each of these realms possesses a particular combination of environmental, cultural, and organizational properties.

^{*}Throughout this book we will capitalize State when this term refers to an administrative subdivision of a country: for example, the U.S. State of Ohio or the Australian State of New South Wales. Since this term is also synonymous with country (e.g., the state of Brazil), we use the lower case when referring to such a national state.

These characteristic qualities are imprinted on the landscape, giving each realm its own traditional attributes and social settings. As we come to understand the human and environmental makeup of these geographic realms, we learn not only where they are located but also why they are located where they are (a key question in geography), how they are constituted, and what their future is likely to be in our fast-changing world. Figure G-3, therefore, forms the overall framework for our investigation in this book.

Criteria for Geographic Realms

The existence and identification of world geographic realms depends on a combination of factors. Our world offers a highly complex and variable environment of large and small continents, enormous oceans and countless waterways, innumerable islands, diverse habitats and cultures, and intricate political geographies. What constitutes a realm depends on the circumstances, but we can still identify three main sets of criteria:

- *Physical and Human* Geographic realms are based on sets of spatial criteria. They are the largest units into which the inhabited world can be divided. The criteria on which such a broad regionalization is based include both physical (that is, natural) and human (or social) yardsticks. On the one hand, South America is a geographic realm because physically it is a continent and culturally it is comprised of comparable societies. The realm called South Asia, on the other hand, lies on a Eurasian landmass shared by several other geographic realms; high mountains, wide deserts, and dense forests combine with a distinctive social fabric to create this well-defined realm centered on India.
- *Functional* Geographic realms are the result of the interaction of human societies and natural environments, a *functional* interaction revealed by farms, mines, fishing ports, transport routes, dams, bridges, villages, and countless other features that mark the landscape. According to this criterion, Antarctica is a continent but not a geographic realm.
- *Historical* Geographic realms must represent the most comprehensive and encompassing definition of the great clusters of humankind in the world today. China lies at the heart of such a cluster, as does India. Africa constitutes a geographic realm from the southern margin of the Sahara (an Arabic word for desert) to the Cape of Good Hope and from its Atlantic to its Indian Ocean shores.

Figure G-3 displays the 12 world geographic realms based on these criteria. As we will show in greater detail later, waters, deserts, and mountains as well as cultural and political shifts mark the borders of these realms. We shall discuss the positioning of these boundaries as we examine each realm.

Delineating Realms: Boundaries and Transition Zones

Oceans and seas are the most common natural boundaries of the world's realms, such as the South Atlantic to Subsaharan Africa's west or the North Atlantic to North America's east. But where two geographic realms meet, **transition zones** [5], not sharp boundaries, often mark their contacts.

We need only remind ourselves of the border zone between the geographic realm in which most of us live, North America, and the adjacent realm of Middle America. The line in Figure G-3 coincides with the boundary between Mexico and the United States, crosses the Gulf of Mexico, and then separates Florida from Cuba and the Bahamas. But Hispanic influences are strong in North America north of this boundary, and the U.S. economic influence is strong south of it. The line, therefore, represents an ever-changing zone of regional interaction. Again, there are many ties between South Florida and the Bahamas, but the Bahamas resemble a Caribbean more than a North American inhabitants that it is sometimes referred to as the second-largest Cuban city after Havana.

In Africa, the transition zone from Subsaharan to North Africa is so wide and well defined that we have put it on the world map; elsewhere, transition zones tend to be narrower and less easily represented. In the first half of this second decade of the twenty-first century, such countries as Belarus (between Europe and Russia) and Kazakhstan (between Russia and Muslim Southwest Asia) lie in inter-realm transition zones. Remember, over much (though not all) of their length, borders between realms are zones of regional change.

Transition zones are fascinating spaces: it is almost as if they rebel against a clear ordering of the world's geography. They remind us that the world is a restless and contested place with shifting boundaries and changing geographic fortunes. They challenge the geographer's mapping skills, and, above all, they underscore just how complex the study of geography is. As you will see, transition zones are often places of tension and/or conflict.

Geographic Realms: Dynamic Entities

Had we drawn Figure G-3 before Columbus made his voyages from 1492 (and assuming we had the relevant geographical knowledge), the map would have looked different: indigenous states and peoples would have determined the boundaries in the Americas; Australia and New Guinea would have constituted a single realm, and New Zealand would have been part of the Pacific Realm. The colonization, Europeanization, and Westernization of the world changed that map dramatically. Since World War II, the world map has been redrawn as a result of decolonization and the rise and then demise of the Cold War. That Cold War division between western and eastern Europe has now given way to far-reaching European integration across that geographic realm. Realms and regions are dynamic entities, and geography is always subject to change.