

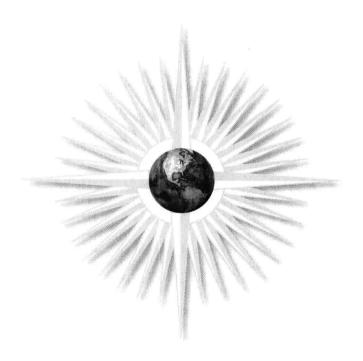
SEVENTH EDITION

THE CULTURAL LANDSCAPE

# An Introduction to Human Geography

James M. Rubenstein

### SEVENTH EDITION



# The Cultural Landscape

# An Introduction to Human Geography

James M. Rubenstein

Miami University, Oxford, Ohio



## Preface

What is geography? Geography is the study of where things are located on Earth's surface and the reasons for the location. The word geography, invented by the ancient Greek scholar Eratosthenes, is based on two Greek words. Geo means "Earth," and graphy means "to write." Geographers ask two simple questions: where and why. Where are people and activities located across Earth's surface? Why are they located in particular places?

### Geography as a Social Science

Recent world events lend a sense of urgency to geographic inquiry. Geography's spatial perspectives help to relate economic change in Africa, the Middle East, and other regions to the distributions of cultural features such as languages and religions, demographic patterns such as population growth and migration, and natural resources such as energy and food supply.

Does the world face an overpopulation crisis? Geographers study population problems by comparing the arrangements of human organizations and natural resources across Earth. Given these spatial distributions, geographers conclude that some locations may have more people than can be provided for, whereas other places may be underpopulated.

Similarly, geographers examine the prospects for an energy crisis by relating the distribution of energy sources and consumption. Geographers find that the users of energy are located in places with different social, economic, and political institutions than the producers of energy. Geographers seek first to describe the distribution of features such as the production and consumption of energy, and then to explain the relationships between these distributions and other human and physical phenomena.

The main purpose of this book is to introduce students to the study of geography as a social science by emphasizing the relevance of geographic concepts to human problems. It is intended for use in college-level introductory human or cultural geography courses. The book is written for students who have not previously taken a college-level geography course and have had little, if any, geography in high school.

### Divisions within Geography

Because geography is a broad subject, some specialization is inevitable. At the same time, one of geography's strengths is its diversity of approach. Rather than being forced to adhere rigorously to established disciplinary laws, geographers can combine a variety of methods and approaches. This tradition stimulates innovative thinking, although students who are looking for a series of ironclad laws to memorize may be disappointed.

Human vs. Physical Geography Geography is both a physical and a social science. When geography concentrates on the distribution of physical features, such as climate, soil, and vegetation, it is a natural science. When it studies cultural features, such as language, industry, and cities, geography is a social science. This division is reflected in some colleges, where physical geography courses may carry natural science credit and human and cultural geography courses social science credit.

While this book is concerned with geography from a social science perspective, one of the distinctive features of geography is its use of natural science concepts to help understand human behavior. The distinction between physical and human geography reflects differences in emphasis, not an absolute separation.

**Topical vs. Regional Approach** Geographers face a choice between a topical and a regional approach. The topical approach, which is used in this book, starts by identifying a set of important cultural issues to be studied, such as population growth, political disputes, and economic restructuring. Geographers using the topical approach examine the location of different aspects of the topic, the reasons for the observed pattern, and the significance of the distribution.

The alternative approach is regional. Regional geographers start by selecting a portion of Earth and studying the environment, people, and activities within the area. The regional geography approach is used in courses on Europe, Africa, Asia, and other areas of the world. Although this book is organized by topics, geography students should be

aware of the location of places in the world. A separate index section lists the book's maps by location. One indispensable aid in the study of regions is an atlas, which can also be used to find unfamiliar places that may pop up in the news. Partly for this reason, the publisher has chosen to offer an atlas to accompany this textbook at *no additional cost to the student*.

Descriptive vs. Systematic Method Whether using a topical or a regional approach, geographers can select either a descriptive or a systematic method. Again, the distinction is one of emphasis, not an absolute separation. The descriptive method emphasizes the collection of a variety of details about a particular location. This method has been used primarily by regional geographers to illustrate the uniqueness of a particular location on Earth's surface. The systematic method emphasizes the identification of several basic theories or techniques developed by geographers to explain the distribution of activities.

This book uses both the descriptive and systematic methods because total dependence on either approach is unsatisfactory. An entirely descriptive book would contain a large collection of individual examples not organized into a unified structure. A completely systematic approach suffers because some of the theories and techniques are so abstract that they lack meaning for the student. Geographers who depend only on the systematic approach may have difficulty explaining important contemporary issues.

### Features

This book is sensitive to the study needs of students. Each chapter is clearly structured to help students understand the material and effectively review from the book.

Outline The book discusses the following main topics:

- What basic concepts do geographers use? Chapter 1 provides an introduction to ways that geographers think about the world. Geographers employ several concepts to describe the distribution of people and activities across Earth, to explain reasons underlying the observed distribution, and to understand the significance of the arrangements.
- Where are people located in the world? Chapters 2 and 3 examine the distribution and growth of the world's population, as well as the movement of people from one place to another. Why do some places on Earth contain large numbers of people or attract newcomers while other places are sparsely inhabited?
- How are different cultural groups distributed? Chapters 4 through 8 analyze the distribution of different cultural traits and beliefs and the problems that result from those spatial patterns. Important cultural traits discussed in Chapter 4 include food, clothing, shelter, and leisure activities. Chapters 5 through 7 examine three main elements of cultural identity: language, religion, and ethnicity. Chapter 8 looks at

- political problems that arise from cultural diversity. Geographers look for similarities and differences in the cultural features at different places, the reasons for their distribution, and the importance of these differences for world peace.
- How do people earn a living in different parts of the world? Human survival depends on acquiring an adequate food supply. One of the most significant distinctions in the world is whether people produce their food directly from the land or buy it with money earned by performing other types of work. Chapters 9 through 12 look at the three main ways of earning a living: agriculture, manufacturing, and services. Chapter 13 discusses cities, the centers for economic as well as cultural activities.
- What issues result from using Earth's resources? The
  final chapter is devoted to a study of three issues related to the use of Earth's natural resources: energy,
  pollution, and food supply. Geographers recognize
  that cultural problems result from the depletion, destruction, and inefficient use of the world's natural
  resources.

**Chapter Organization** To help the student use the material in this book, each chapter is organized with these study aids:

- Case Study. Each chapter opens with a case study that illustrates some of the key concepts presented in the text. The case studies are generally drawn from news events or from daily experiences familiar to residents of North America.
- Key Issues. Each chapter contains a set of three, four, or five key issues around which the chapter material is organized. These questions reappear as major headings within the chapter. Other than in Chapter 1, all questions include one of the two key geographic concerns: where or why.
- Key Terms. The key terms in each chapter are indicated in bold type when they are introduced. These terms are also listed at the end of the chapter and defined at the end of the book.
- Contemporary Geographic Tools. Each chapter has a oneor two-page box that explores in depth an issue related to the subject of the chapter. The boxes show how geographic tools, such as geographic information systems, aerial photography, and remotely sensed images, have been used to resolve—or at least understand—cultural, political, and economic controversies and disputes.
- Summary. The key issues are repeated at the end of the chapter with a brief review of the important concepts covered in detail in the text.
- Case Study Revisited. Additional information related to the chapter's case study may be used to reinforce some of the main points.
- Thinking Geographically. This section offers five questions based on concepts and themes developed in the

chapter. The questions help students apply geographic concepts to explore issues more intensively.

On the Internet. The internet site (www.prenhall.com/rubenstein) that accompanies the book offers a variety of resources for both students and professors. The site features review exercises for students, critical thinking problems, annotated resources for further exploration, and mapping exercises.

Further Readings. A list of books and articles is provided for students who wish to study the subject

further.

**Appendix** A special appendix on scale and major projections enhances the discussion of the subject in Chapter 1 of the text. We are grateful to Phillip C. Muehrcke, Professor of Geography at the University of Wisconsin-Madison, and former president of the American Cartographic Association, for his clear explanation of the subject.

### Instructional Package

In addition to the text itself, the author and publisher have been pleased to work with a number of talented people to produce an excellent instructional package. This package includes the traditional supplements that students and professors have come to expect from authors and publishers, as well as new kinds of components that utilize electronic media.

### For the Student

- Companion Web site: The Cultural Landscape: An Introduction to Human Geography Web site by Robert E. Nunley, George W. Ulbrick, Daniel L. Roy, and Severin M. Roberts, all of the University of Kansas, gives students the opportunity to further explore topics presented in the book using the Internet. The site contains numerous review exercises (from which students get immediate feedback), exercises to expand students' understanding of human geography, and resources for further exploration. This Web site provides an excellent platform from which to start using the Internet for the study of human geography. Please visit the site at http://www.prenhall.com/rubenstein
- Science on the Internet: A Student's Guide, (0-13-028253-7) by Andrew T. Stull and Harry Nickla, is a guide to the Internet specifically for geography students. Science on the Internet is available at no cost to qualified adopters of The Cultural Landscape.
- *Study Guide* (0-13-091398-2): Written by experienced educators Robert E. Nunley and George W. Ulbrick, the study guide helps students identify the important points from the text and then provides them with review exercises, study questions, self-check exercises, and vocabulary review.

### For the Professor

- Slides (0-13-091394-4) and Transparencies (0-13-091393-6): More than 150 full-color illustrations from the text are available free of charge to qualified adopters. In order to accommodate instructor preference, these images are available both on transparency acetates and 35 millimeter slides.
- Digital Files (0-13-091932-2): All of the maps and figures from the text, and some of the photographs, are available digitally on a CD-ROM. These files are ideal for those professors who use PowerPoint or a comparable presentation software for their classes, or for professors who create text-specific Web sites for their students.
- The New York Times Themes of the Times—Geography: This unique newspaper-format supplement features recent articles about geography from the pages of The New York Times. This supplement, available at no extra charge from your local Prentice Hall representative, encourages students to make connections between the classroom and the world around them.
- Instructor's Manual: Written by Tarek Joseph of Michigan State University, the instructor's manual is intended as a resource for both new and experienced instructors. It includes a variety of lecture outlines, additional source materials, teaching tips, advice about how to integrate visual supplements (including the Web-based resources), and various other ideas for the classroom.
- Test Item File (0-13-091435-5): The test item file, by Robert E. Nunley, George W. Ulbrick, Severin M. Roberts, and Daniel L. Roy, provides instructors with a wide variety of test questions.
- PH Custom Test: Available formatted for both Macintosh (0-13-091396-0) and IBM (0-13-091395-2) computers and based on the powerful testing technology developed by Engineering Software Associates, Inc. (ESA), Prentice Hall Custom Test allows instructors to create and tailor exams to their own needs. With the online testing program, exams can also be administered online and data can then be automatically transferred for evaluation. A comprehensive desk reference guide is included, along with online assistance.
- Course Management: Prentice Hall is proud to be a partner with many of the leading course-management system providers on the market today. These partnerships enable us to combine our market-leading online content with the powerful course management tools Blackboard, WebCT, and our proprietary course management system, CourseCompass. Please visit our demo site, www.prenhall.com/demo, for more information, or contact your local Prentice Hall representative, who can provide a live demonstration of these exciting tools.

### Suggestions for Use

This book can be used in an introductory human or cultural geography course that extends over one semester, one quarter, or two quarters. An instructor in a one-semester course could devote one week to each of the chapters, leaving time for examinations. In a one-quarter course, the instructor might need to omit some of the book's material.

A course with more of a cultural orientation could use Chapters 1 through 8, plus Chapter 14. If the course has more of an economic orientation, then the appropriate chapters would be 1 through 3 and 8 through 14.

A two-quarter course could be organized around the culturally oriented Chapters 1 through 8 during the first quarter and the more economically oriented Chapters 9 through 14 during the second quarter. Topics of particular interest to the instructor or students could be discussed for more than one week.

### Changes

A central theme in this book is a tension between two important themes-globalization and cultural diversity. In many respects we are living in a more unified world economically, culturally, and environmentally. The actions of a particular corporation or country affect people around the world. This book argues that after a period when globalization of the economy and culture has been a paramount concern in geographic analysis, local diversity now demands equal time. People are taking deliberate steps to retain distinctive cultural identities. They are preserving little used languages, fighting fiercely to protect their religions, and carving out distinctive economic roles.

A major change in this edition is an emphasis on five basic concepts of space, place, region, scale, and connections. Chapter 1 has been substantially rewritten around these five concepts and renamed "Thinking Geographically." The inspiration for this emphasis came from the Advanced Placement in College-Level Human Geography examination, based on National Geography Standards, which is organized around these five concepts.

Two chapters of particular importance in this book are Ethnicity (Chapter 7) and Services (Chapter 12). Ethnicity, like language and religion, is increasingly a source of pride to people and a link to the cultural traditions of ancestors. Ethnicity may help to explain demographic, health, and economic conditions and patterns of inequality and discrimination. Some of the material in Chapter 7 was found elsewhere in previous editions, including U.S. urban patterns, South Africa's history of apartheid, and ethnic cleansing in the Balkans. Two-thirds of North Americans work in services, but this sector of the economy receives minimal treatment in introductory (or even intermediatelevel) geography books. Chapter 12 is designed to rectify that imbalance.

Finally, given the enormous amount of material now available electronically, through CD-ROM, Internet, and so on, why should an instructor continue to make students buy an expensive textbook? In the computer age, is a textbook an anachronism? A book is a slow way to communicate: By the time this book is in your hands, something in it will be outdated; perhaps there will be a new war, peace treaty, or United Nations member. The information superhighway is filled with data that can be quickly retrieved, but the information is poorly organized and written.

In contrast, a high-quality book is crafted carefully by the author, editors, and publisher. The author has rewritten these sentences several times to convey a precise meaning. Editors then change many of the words and punctuation to assure that the author's intended meaning is successfully communicated. A book allows an author to lay out a more careful and clear route to explanation and understanding than is possible electronically. For now, computers are tools for retrieval of facts and for advanced analysis, but they cannot yet compete with books in explaining a discipline's basic concepts and themes.

### Acknowledgments

The successful completion of a book like this requires the contribution of many people. First and foremost I would like to take this opportunity to discuss the central role of Prentice Hall Geography Editor Daniel Kaveney in the successful completion of this project. More important, as editor of the dominant geography college textbook publisher, Dan holds as much responsibility as any other single individual for shaping the nation's college geography curriculum. Dan has assumed this leadership role with great modesty and deference, but he has been firm in assuring that Prentice Hall sets a high standard of quality for what appears in print.

Befitting its leadership role, Prentice Hall has a strong team of support staff that makes life easy for an author. Susan J. Fisher, Senior Production Editor, carefully oversees all the elements of the project in an efficient nononsense manner. With the assistance of Nicole M. Bush, Production Editor, the production team has brought home a well-crafted book on a very rapid timetable. Thanks also to Geography Marketing Manager Christine Henry and to the Prentice Hall sales representatives who have done a fine job promoting the book on campus. Lastly, I will always be grateful to Paul Corey, President of Prentice Hall's Engineering, Science, and Math division, for his longtime support and friendship.

Outside Prentice Hall, the production staff at MapQuest, led by Kevin Lear, produced outstanding maps for this book, and Academy Artworks, led by Patricia Burns, produced handsome line drawings. Judy Olson at Michigan State University helped to modernize the look of the maps in this edition by creating a fresh color palette. Kathy Ringrose, photo researcher, assembled an especially strong collection of engaging photographs. Preparé pulled together the page layout and composition far more smoothly and attractively than in the old days of galleys and paste-ups. I am also grateful to the outstanding work done on a variety of ancillaries by the University of Kansas crowd, led by Robert E. Nunley, George Ulbrick, and Daniel L. Roy, as well as by Tarek Joseph of Michigan State University. Finally, I would like to thank my students at Miami, who make this work worthwhile.

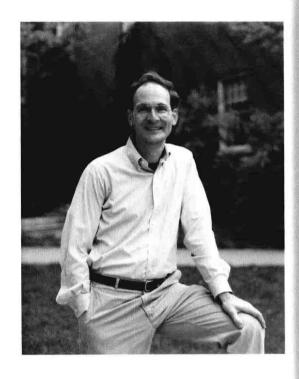
### Seventh-Edition Reviewers

I'd like to extend a special thanks to all of my colleagues who have, over the years, offered a great deal of feedback and constructive criticism. Colleagues who served as reviewers as we prepared this seventh edition of the text are Samuel Aryeetey-Attoh, University of Toledo; Brad Bays, Oklahoma State University; Henry W. Bullamore, Frostburg State University; Michael S. DeVivo, Kutztown University; Vernon Domingo, Bridgewater State College; Robert E. Nunley, University of Kansas; Thomas Terich, Western Washington University; William Wyckoff, Montana State University. I thank them for their help and feedback.

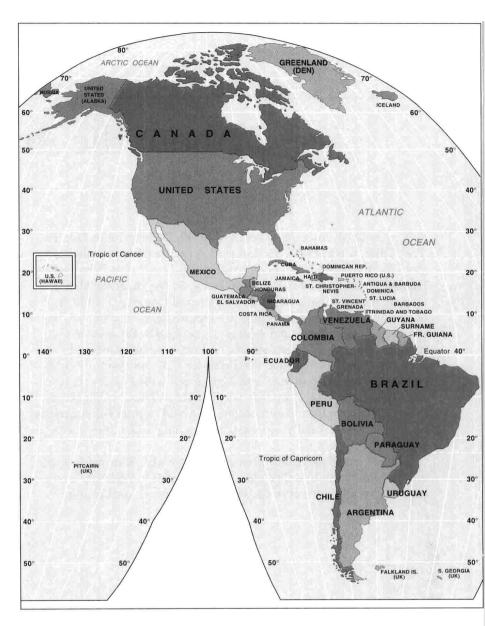
## About the Author

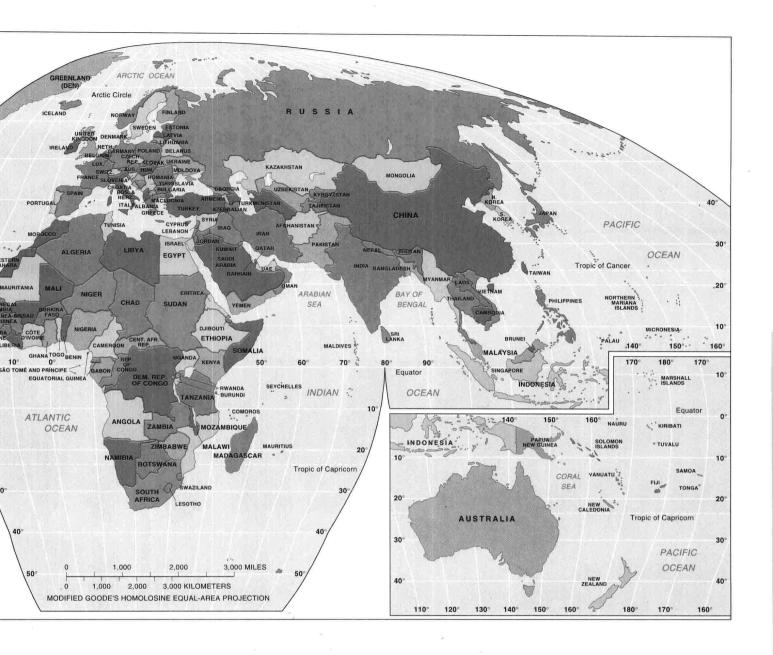
Dr. James M. Rubenstein received his Ph.D. from Johns Hopkins University in 1975. His dissertation on French urban planning was later developed into a book entitled *The French New Towns* (Johns Hopkins University Press). In 1976 he joined the faculty at Miami University, where he is currently Professor of Geography and Chair of the Department of Geography. Besides teaching courses on Urban and Human Geography and writing textbooks, Dr. Rubenstein also conducts research in the automotive industry and has published two books on the subject entitled *The Changing U.S. Auto Industry: A Geographical Analysis* (Routledge) and *Making and Selling Cars: Innovation and Change in the U.S. Auto Industry* (The Johns Hopkins University Press). Originally from Baltimore, he is an avid Orioles fan. Stormy, a lab-pointer mix, takes Dr. Rubenstein for a long walk in the woods every day.

This book is dedicated to Bernadette Unger, Dr. Rubenstein's wife, who has stuck with him through thick and thin. Dr. Rubenstein also gratefully thanks the rest of his family for their love and support.



The world map at right reveals one of the most significant elements of the cultural landscape—the political boundaries that separate its five billion inhabitants. The numerous states range in size from Russia, which occupies one-sixth of the world's land area, to microstates such as Singapore, Malta, or Grenada. The names of these states evoke images of different environments, peoples, cultures, and levels of well-being. However, the political boundaries are only one of the many patterns that geographers observe across Earth's surface. Geographers study the distribution of a wide variety of cultural and environmental features—social customs, agricultural patterns, the use of resources-many of which transcend political boundaries. As scientists, geographers also try to explain why we can observe these patterns on the landscape. The facing map and chapters that follow are intended to begin the student on a journey toward understanding our exciting and complex world.





# **Brief Contents**

1 Thinking Geographically 2 Population 37 3 Migration 71 4 Folk and Popular Culture 103 5 Language 135 6 Religion 173 7 Ethnicity 211 8 Political Geography 245 Development 281 10 Agriculture 313 11 Industry 345 12 Services 381 13 Urban Patterns 415 14 Resource Issues 451

# Contents

About the Author xvii
1
Thinking Geographically 1
CASE STUDY Big Mac Attack 2
Key Issue 1 Thinking about Space 3 Distribution 3 Maps 6
Key Issue 2 Thinking about Place 11 Location 11 Telling Time from Longitude 14
Key Issue 3 Thinking about Region 16 Types of Regions 16 Regional Integration 18
Key Issue 4 Thinking about Scale 22 Map Scale 23 Globalization 25
Key Issue 5 Thinking about Connections 27 Spatial Interaction 27
Diffusion 30 Summary 32 Case Study Revisited: The Geography of a Big Mac Attack 32
Key Terms 33 Thinking Geographically 33 On the Internet 34
Further Readings 34  Contemporary Geographic Tools

Internet Maps

Preface xi



2	
Population 37	
CASE STUDY	
Population Growth in India 38	
Key Issue 1 Where Is the World's Population Distributed?	39
Population Concentrations 39	
Sparsely Populated Regions 43	
Population Density 44	
Key Issue 2 Where Has the World's Population Increased?	46
Natural Increase 47	
Fertility 48	
Mortality 48	
Key Issue 3 Why Is Population Increasing at Different Rates in Different Countries? 51	
The Demographic Transition 51	
Population Pyramids 55	
Countries in Different Stages of Demographic Transition 57	
Demographic Transition	

#### vi Contents

VI Contents
Why Might the World Face an Overpopulation Problem? 62  Malthus on Overpopulation 62  Debate Over How to Reduce Natural Increase 64  Summary 66  Case Study Revisited: India vs. China 66  Key Terms 68  Thinking Geographically 68  On the Internet 68  Further Readings 68  ■ Contemporary Geographic Tools  Spatial Analysis and the Census 59
3
Migration 71
CASE STUDY Migrating to Spain 72
Key Issue 1 Why Do People Migrate? 73 Reasons for Migrating 73 Distance of Migration 76 Characteristics of Migrants 77
Key Issue 2 Where Are Migrants Distributed? 78 Global Migration Patterns 78 Immigration to the United States 79
Key Issue 3 Why Do Migrants Face Obstacles? 87 Immigration Policies of Host Countries 87 Cultural Problems Living in Other Countries 91
Key Issue 4 Why Do People Migrate Within a Country?  Migration Between Regions of a Country  Migration Within One Region  96 Summary  98
Case Study Revisited: Give Me Your Tired, Your Poor 99 Key Terms 100
Thinking Geographically 100 On the Internet 100
Further Readings 100
Contemporary Geographic Tools Claiming Ellis Island 82
4

Folk and Popular Culture

The Aboriginal Artists of Australia at Lincoln

CASE STUDY

104

Center

103



### Key Issue 1 Where Do Folk and Popular Cultures Originate and Diffuse? 105

Origin of Folk and Popular Cultures 106 Diffusion of Folk and Popular Cultures 107

Key Issue 2

Why Is Folk Culture Clustered? 110

Isolation Promotes Cultural Diversity 110 Influence of the Physical Environment 111

Key Issue 3

Why Is Popular Culture Widely Distributed? 116
Diffusion of Popular Housing, Clothing, and Food Role of Television in Diffusing Popular Culture 121

127

Key Issue 4

Why Does Globalization of Popular Culture Cause Problems? 125

Threat to Folk Culture 125 Environmental Impact of Popular Culture

Summary 130

Case Study Revisited: The Aboriginal Artists Return to

Australia 130

Key Terms 131

Thinking Geographically 131

On the Internet 131

Further Readings 131

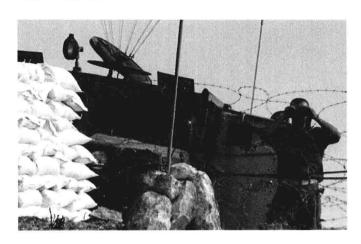


207

213

205

Contemporary Geographic Tools	
Documenting House Types Through Field Work 118	
5	
Language 135	
CASE STUDY	
French and Spanish in the United States and Canada 136	
Key Issue 1	
Where Are English-Language Speakers Distributed? 137	
Origin and Diffusion of English 137	
Dialects of English 140	Diffusion of Religions 185
Key Issue 2 Why Is English Related to Other Languages? 144	Holy Places 189 The Calendar 194
Indo-European Branches 144	Key Issue 3
Origin and Diffusion of Indo-European 150	Why Do Religions Organize Space
Key Issue 3	in Distinctive Patterns? 195
Where Are Other Language	Places of Worship 195
Families Distributed? 152	Sacred Space 197
Classification of Languages 153 Distribution of Language Families 154	Administration of Space 199
	Key Issue 4
Key Issue 4 Why Do People Preserve Local Languages? 159	Why Do Territorial Conflicts Arise Among Religious Groups? 200
Preserving Language Diversity 159	Religion vs. Government Policies 201
Global Dominance of English 163	Religion vs. Religion 202
Summary 168	Summary 207
Case Study Revisited: The Future of French and Spanish	Case Study Revisited: Future of Buddhism in Tibet
n Anglo-America 168	Key Terms 208
Key Terms 169 Fhinking Geographically 169	Thinking Geographically 208
Thinking Geographically 169 On the Internet 170	On the Internet 208
Further Readings 170	Further Readings 208
*	Contemporary Geographic Tools
Contemporary Geographic Tools	Pinpointing a Border in the Middle East 20
English on the Internet 165	
	7
6	Ethnicity 211
Religion 173	CASE STUDY Ethnic Conflict in Rwanda 212
CASE STUDY	Key Issue 1
The Dalai Lama vs. the People's Republic of China 174	Where Are Ethnicities Distributed? 213
	Distribution of Ethnicities in the United States
Key Issue 1 Where Are Religions Distributed? 175	Differentiating Ethnicity and Race 219
Universalizing Religions 175	Key Issue 2
Ethnic Religions 180	Why Have Ethnicities Been Transformed into Nationalities? 223
Key Issue 2	Rise of Nationalities 223
Why Do Religions Have Different Distributions? 182	Nationalities in Former Colonies 225
Origin of Religions 182	Revival of Ethnic Identity 227



Key Issue 3

Why Do Ethnicities Clash? 228

229 Ethnic Competition to Dominate Nationality Overlapping of Ethnicities and Nationalities 231

**Ethnic Cleansing** 

239 Summary

Case Study Revisited: Ethnic Cleansing in Central Africa 240

Key Terms

Thinking Geographically 242

On the Internet

Further Readings 242

■ Contemporary Geographic Tools

Documenting Ethnic Cleansing

#### Political Geography 245

CASE STUDY

246 Changing Borders in Europe

Key Issue 1

247 Where Are States Located?

Problems of Defining States

Development of the State Concept 251

Key Issue 2

254 Where Are Boundaries Drawn Between States?

Shapes of States

Types of Boundaries 258

Key Issue 3

Why Do Boundaries Between States

Cause Problems?

One State with Many Nationalities 261

266 One Nationality in More Than One State

Internal Organization of States 267

Key Issue 4

268 Why Do States Cooperate with Each Other?

269 Political and Military Cooperation

**Economic Cooperation** 

Summary 276

Case Study Revisited: Future of the Nation-State

in Europe

Key Terms 277

Thinking Geographically

On the Internet 277

Further Readings 278

■ Contemporary Geographic Tools

Satellite Imagery of Military Sites 273

#### Development 281

CASE STUDY

Bangladesh's Development Problems 282

Key Issue 1

Why Does Development Vary

Among Countries?

Economic Indicators of Development 284

Social Indicators of Development 287

Demographic Indicators of Development 289

Key Issue 2

Where Are More and Less Developed

Countries Distributed? 292

More Developed Regions 293

298 Less Developed Regions

Key Issue 3

Why Do Less Developed Countries Face Obstacles 301

to Development?

Development Through Self-sufficiency

Development Through International Trade 303

Financing Development

Summary 307 Case Study Revisited: Future Prospects

for Development 308

309 **Key Terms** 

Thinking Geographically 309

On the Internet

Further Readings 309

Contemporary Geographic Tools

Cleaning Up After Communism in Eastern Europe

296



### 11

Agriculture 313	
CASE STUDY	
Wheat Farmers in Kansas and Pakistan 314	
Key Issue 1	
Where Did Agriculture Originate? 315	
Origins of Agriculture 315	
Location of Agricultural Hearths 316	
Classifying Agricultural Regions 317	
Key Issue 2	
Where Are Agricultural Regions in Less	
Developed Countries? 319	
Shifting Cultivation 321	
Pastoral Nomadism 324	
Intensive Subsistence Agriculture 326	
Key Issue 3	
Where Are Agricultural Regions in More	
Developed Countries? 328	
Mixed Crop and Livestock Farming 328	
Dairy Farming 329	
Grain Farming 331	
Livestock Ranching 332	
Mediterranean Agriculture 335	
Commercial Gardening and Fruit Farming 336	
Plantation Agriculture 336	
Key Issue 4	
Why Does Agriculture Vary Among Regions?	337
Environmental and Cultural Factors 337	
Economic Issues for Subsistence Farmers 337	
Economic Issues for Commercial Farmers 338	
Summary 340	
Case Study Revisited: Uncertain Future for Farming	341
Key Terms 341	

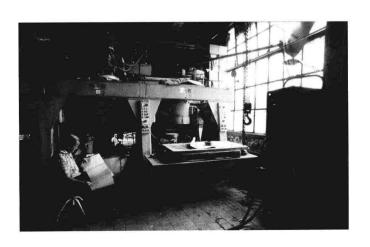
# Contemporary Geographic Tools Protecting Farmland 322

342

Thinking Geographically

On the Internet

Further Readings



342

Industry 345
CASE STUDY Maquiladoras in Mexico 346
Key Issue 1 Where Did Industry Originate? 347 The Industrial Revolution 347 Diffusion of the Industrial Revolution 348
Key Issue 2 Where Is Industry Distributed? 351 North America 351 Europe 354 East Asia 356
Key Issue 3 Why Do Industries Have Different Distributions? 357 Situation Factors 357 Site Factors 364 Obstacles to Optimum Location 370
Key Issue 4 Why Do Industries Face Problems? 370
Industrial Problems from a Global Perspective370Industrial Problems in More Developed Countries371Industrial Problems in Less Developed Countries375
Summary 376 Case Study Revisited: Free Trade in North America 376 Key Terms 377
Thinking Geographically 377 On the Internet 377 Further Readings 377

# Contemporary Geographic Tools Selecting a Site for Saturn 360

### 12

### Services 381

		-
CASE STUDY Obtaining Goods in Ro	mania	382
Key Issue 1 Where Did Services Or	iginate?	383
-71	83 385	387
Key Issue 2 Why Are Consumer Se		
in a Regular Pattern?	390	
Central Place Theory	390	
Market Area Analysis	392	

Hierarchy of Services and Settlements

396

Why Do Business Services Locate in

Key Issue 3

Large Settlements?

394

#### Contents

World Cities 397 Hierarchy of Business Services 400 Economic Base of Settlements 402 Kev Issue 4 Why Do Services Cluster Downtown? 404 Central Business District 404 Suburbanization of Businesses 408 Summary 410 Case Study Revisited: Romanian Policy 410 **Key Terms** 411 Thinking Geographically 411 On the Internet Further Readings Contemporary Geographic Tools Locating a New Department Store 393

#### Urban Patterns 415

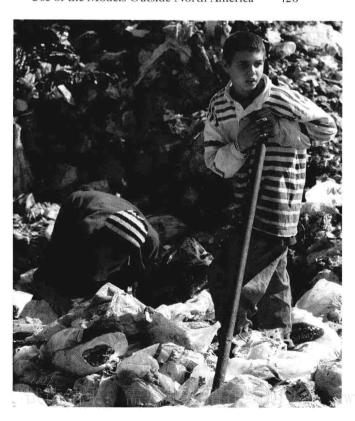
417

CASE STUDY Two Families in New Jersey 416 Key Issue 1 Where Have Urban Areas Grown?

Urbanization 417 Defining Urban Settlements

Key Issue 2 Where Are People Distributed Within Urban Areas?

Three Models of Urban Structure 423 Use of the Models Outside North America 426



Key Issue 3 Why Do Inner Cities Have Distinctive Problems? 432 Inner-City Physical Problems 433 Inner-City Social Problems 435 Inner-City Economic Problems 436 Key Issue 4 Why Do Suburbs Have Distinctive Problems? 437 The Peripheral Model 438 Contribution of Transportation to Suburbanization 440 Local Government Fragmentation Summary 446 Case Study Revisited: Contrasts in the City 446 Key Terms Thinking Geographically 447 On the Internet Further Readings

Contemporary Geographic Tools Intelligent Transportation Systems 442

### 451

CASE STUDY Pollution in Mexico City 452 Key Issue 1 Why Are Fossil-Fuel Resources Being Depleted? 453 Dependence on Fossil Fuels 453 Alternative Energy Sources 461 Key Issue 2 Why Are Resources Being Polluted? 465 Pollution Sources 466

Alternatives for Reducing Pollution

Key Issue 3 Why Are Global Food Resources Expandable? 477 Alternative Strategies to Increase Food Supply 478 Africa's Food Supply Crisis Summary 482 Case Study Revisited: Future Directions 483 **Key Terms** Thinking Geographically 484 On the Internet

Further Readings 484 Contemporary Geographic Tools Monitoring the Disappearing Aral Sea 470

Index

Conclusion: Careers in Geography Appendix: Map Scale Projections, by Phillip C. Muerhcke 488 Key Terms Photo Credits 502 Map Index 504 on**506**ook.com