

A N N U A L E D I T I O N S

GEOGRAPHY

95/96



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95/96

Editor

Gerald R. Pitzl
Macalester College

Gerald R. Pitzl, professor of geography at Macalester College, received his bachelor's degree in secondary social science education from the University of Minnesota in 1964 and his M.A. (1971) and Ph.D. (1974) in geography from the same institution. He teaches a wide array of geography courses and is the author of a number of articles on geography, developing world countries, and computers in social science education.

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Tenth Edition

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To the Reader

In publishing ANNUAL EDITIONS we recognize the enormous role played by the magazines, newspapers, and journals of the *public press* in providing current, first-rate educational information in a broad spectrum of interest areas. Within the articles, the best scientists, practitioners, researchers, and commentators draw issues into new perspective as accepted theories and viewpoints are called into account by new events, recent discoveries change old facts, and fresh debate breaks out over important controversies.

Many of the articles resulting from this enormous editorial effort are appropriate for students, researchers, and professionals seeking accurate, current material to help bridge the gap between principles and theories and the real world. These articles, however, become more useful for study when those of lasting value are carefully collected, organized, indexed, and reproduced in a low-cost format, which provides easy and permanent access when the material is needed. That is the role played by *Annual Editions*. Under the direction of each volume's Editor, who is an expert in the subject area, and with the guidance of an Advisory Board, we seek each year to provide in each ANNUAL EDITION a current, well-balanced, carefully selected collection of the best of the public press for your study and enjoyment. We think you'll find this volume useful, and we hope you'll take a moment to let us know what you think.

The articles in this tenth edition of *Annual Editions: Geography* represent the wide range of topics associated with the discipline of geography. The major themes of spatial relationships, regional development, the population explosion, and socioeconomic inequalities exemplify the diversity of research areas within geography.

The book is organized into five sections, each of which contains articles relating to themes within the discipline. Articles address the conceptual nature of geography and the global and regional problems in the world today. The latter theme reflects the geographer's concern with finding solutions to these serious global and regional problems. Regional problems, such as food shortages in the Sahel and the greenhouse effect, not only concern geographers but interest researchers from other disciplines as well.

The association of geography with other disciplines is important because expertise from a number of different fields will be necessary in finding solutions to some difficult problems. Geography should be involved in the search for solutions because the discipline has always been integrative. That is, geography uses evidence from many sources to answer the basic questions, "Where is it?" "Why is it there?" and "What is its relevance?" The articles emphasize the interconnectedness not only of places and regions in the world, but of thrusts to solutions to problems as well. No single discipline will have all of the answers to the problems facing the world today; the complexity of the issues is simply too great.

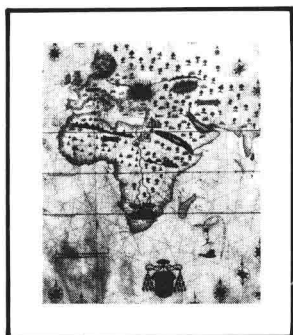
The articles in the first section of the book discuss particular aspects of geography as a discipline and provide examples of the topics presented in the remaining four sections. The middle three sections represent major themes in geography. The last section addresses important problems faced by geographers and others.

Articles in *Annual Editions: Geography 95/96* will be useful to both teachers and students in their study of geography. The anthology is designed to provide detail and case study material to supplement the standard textbook treatment of geography. The goals of this anthology are to introduce students to the richness and diversity of topics relating to places and regions on Earth's surface, to pay heed to the serious problems facing humankind, and to stimulate the search for more information on topics of interest.

I would like to express my gratitude to Barbara Wells-Howe for her help in preparing this material for publication. Her typing, organization of materials, and many helpful suggestions are greatly appreciated. Without her diligence and professional efforts, this undertaking could not have been completed. Special thanks are also extended to Ian Nielsen for his continued encouragement during the preparation of this new edition, and to Addie Raucci for her enthusiasm and helpfulness. A word of thanks must go, as well, to all those who recommended articles for inclusion in this volume and who commented on the overall organization of the volume. Peter O. Muller, Robert S. Bednarz, Vern Harnapp, and Owa Saarinen were especially helpful in that regard. Please continue to share your opinions by filling out the article rating form on the last page of this book.



Gerald R. Pitzl
Editor



Unit 1

Geography in a Changing World

Eight articles discuss the discipline of geography and the extremely varied and wide-ranging themes that define geography today.

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Topic Guide

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Overview

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1. **The Four Traditions of Geography**, William D. Pattison, *Journal of Geography*, September/October 1990. 8

This key article, originally published in 1964, was reprinted, with the author's later comments, in the 75-year retrospective of the *Journal of Geography*. It is a classic in the **history of geography**. William Pattison discusses the four main themes in geography that have been the focus of work in the discipline for centuries—the spatial concept, area studies, land-human relationships, and earth science.

2. **The American Geographies: Losing Our Sense of Place**, Barry Lopez, *Teacher Magazine*, February 1990. 13

The American **landscape** is nearly incomprehensible in depth and complexity, according to the author. To truly understand American **geography**, one must seek out local experts who have an intimate knowledge of **place**, people who have a feel for their locale that no outsider could possibly develop.

3. **The Coming Anarchy**, Robert D. Kaplan, *The Atlantic Monthly*, February 1994. 18

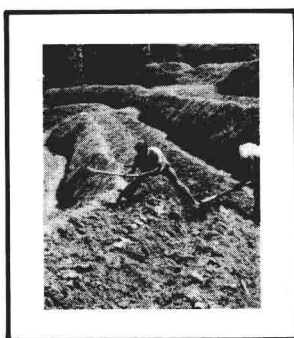
Is the world entering an era of cultural and racial clashes? Will **regions** of unrest and environmental degradation be of greater **geopolitical** significance than **nation-states**? These and other provocative questions are raised by Robert Kaplan. Scarcity, crime, **overpopulation**, **tribalism**, and disease may be destroying the social fabric of our planet.

4. **What's Wrong with the Weather?** Philip Elmer-Dewitt, *Time*, June 15, 1992. 34

How do scientists account for the unusual weather patterns of the last few years? Some lay the blame on **global warming**, while others say it is too soon to tell. This article briefly presents information on the **El Niño** phenomenon, the effects of the Mount Pinatubo eruption in the Philippines, and **greenhouse** gases.

5. **Beaches on the Brink**, Ruth Flanagan, *Earth*, November 1993. 36

Fierce storms are causing significant coastal **erosion** along the Atlantic and Gulf coasts. The storminess increases in magnitude as sea levels rise due to **global warming**. This article considers a number of possible responses to these phenomena.



Unit 2

Land-Human Relationships

Six articles examine the relationship between humans and the land on which we live. Topics include the devastation of the oceans, the destruction of the rain forests, desertification, pollution, and the effects of human society on the global environment.

6. **The New Downtowns**, Witold Rybczynski, *The Atlantic Monthly*, May 1993. 45

The advent of the shopping mall is changing urban America. The move to the **suburbs**, seen in earnest following World War II, is now giving way to a return to the center city, but in a new way: the emergence of downtown malls.

7. **Averting a Disaster**, *International Agricultural Development*, November/December 1993. 51

Soil is a **global** problem, and the loss of this precious commodity is increasing at a time when more food is needed to feed a growing world **population**. A well-planned worldwide program is needed to ensure land **conservation** and the rehabilitation of soil systems.

8. **Is Our Climate Unstable?** Melinda Bell, *Earth*, January 1994. 55

Melinda Bell cautions that **climate** can change, and that the relative stability of the climate system for the past 8,000 years cannot be taken for granted. **Industrial** activities could, in fact, bring a return of convulsive shudders to the climate.

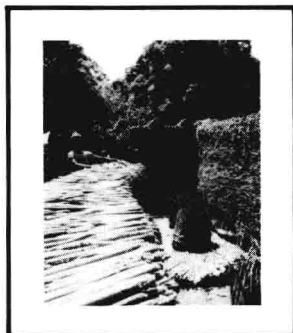
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9. **Troubled Waters**, Annette McGivney, *E Magazine*, September/October 1993. 64

Annette McGivney asks the question, "If **water** quality is improving, why are all the fish dying?" Great strides have been made since passage of the Clean Water Act in 1972, yet rivers are still the catch basins for any number of **pollutants**, such as pesticides, herbicides, and lawn spray residue. Twenty-four rivers in the 48 conterminous United States and Alaska are identified as either "endangered" or "threatened."

10. **It Comes Down to the Coasts**, Peter Weber, *World Watch*, March/April 1994. 69

Economic development and concentration of human **populations** along ocean **coastlines** have occurred for thousands of years. In recent decades degradation of the coastal regions has increased because of greater numbers of people and higher levels of **pollution** from major rivers.



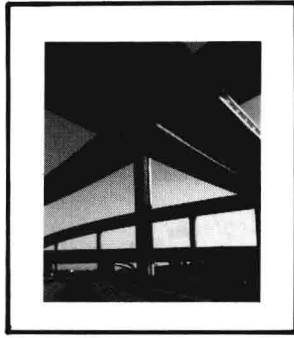
Unit 3

The Region

Eight selections review the importance of the region as a concept in geography and as an organizing framework for research. A number of world regional trends, as well as the patterns of area relationships, are examined.

11. **The Deforestation Debate**, Richard Monastersky, *Science News*, July 10, 1993. 78
An ongoing NASA satellite program should provide the most accurate assessment of global **deforestation**. Evidence is accumulating that suggests significantly inflated estimates of deforestation, especially in the world's tropical **rain forests**.
12. **Threat of Encroaching Deserts May Be More Myth than Fact**, William K. Stevens, *New York Times*, January 18, 1994. 81
Recent findings based on **satellite** measurements cast doubt on the contention that the world's **deserts** are expanding. Studies of the Sahara reveal periods of expansion and recession in the 1980s (depending on periods of greater or lesser rainfall). The keys to rehabilitating **arid lands** appear to be the familiar prescriptions of soil **conservation** and **erosion** control.
13. **Environmental Problems of the Danube Delta**, Catherine Pringle, George Vellidis, Francis Heliotis, Dan Bandacu, and Sergiu Cristofor, *American Scientist*, July/August 1993. 84
The delta of the Danube River is Europe's largest **wetland**, and the river is a key artery serving nine countries in Europe. An important link in the **economic geography** of Europe, the Danube is also a major source of **environmental problems** within its delta region on the Black Sea. Serious efforts are under way to restore the delta to healthy environmental conditions.
14. **An Action Plan to Clean Up the Baltic**, Janusz Kindler and Stephen F. Lintner, *Environment*, October 1993. 95
Pollution in the Baltic Sea has reached high levels. Industrial wastes, agricultural runoff, airborne emissions, and untreated sewage from an estimated 30 million people have resulted in the degradation of this important body of water. Although a multinational effort is underway to reverse the **environmental** deterioration of the Baltic, the program will not have a major impact on the problem for 20 years.
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15. **The Rise of the Region State**, Kenichi Ohmae, *Foreign Affairs*, Spring 1993. 108
The **global** market has dictated a new, more significant set of **region states** that reflects the real flow of economic activity. The old idea of the **nation-state** is considered an anachronism, an unnatural and dysfunctional unit for organizing human activity and emerging economic systems.
16. **Africa's Geomosaic under Stress**, H. J. de Blij, *Journal of Geography*, January/February 1991. 112
This article reviews the independence movement of states in Africa and focuses on **core-periphery** problems in South Africa. Because of the long-standing struggle for power in South Africa, the country has been unable to achieve its status as a **regional** force.

17. **Middle East Geopolitical Transformation: The Disappearance of a Shatterbelt**, Saul B. Cohen, *Journal of Geography*, January/February 1992. 120
With the end of the cold war, significant **geopolitical** restructurings are under way in the world. For years a **shatterbelt**, the Middle East is becoming more oriented to the West. This article reviews important changes occurring in this pivotal **region**.
18. **Prairie Potholes**, Bjorn Sletto, *Earth*, May 1994. 129
A vast region of the North American **prairie** once contained millions of acres of **wetlands**. Much of this area was drained for agriculture, but now efforts are underway to reclaim wetlands and ensure **groundwater** recharge and waterfowl habitat.
19. **The Aral Sea Basin: A Critical Environmental Zone**, V. M. Kotlyakov, *Environment*, January/February 1991. 133
The Aral Sea is drying up because of the diversion of its water inflow sources, the Amu Darya and Syr Darya Rivers, for the development of **irrigated** agriculture in the region. Extreme **desertification** is resulting from this practice.
20. **Does It Matter Where You Are?** *The Economist*, July 30, 1994. 139
As the computer impacts on society, it appears that it is possible to run a business from any location. The truth, however, as this article points out, is that people and businesses are most effective when they have a center or base of operations; where one is located does, indeed, matter greatly.
21. **Low Water in the American High Plains**, David E. Kromm, *The World & I*, February 1992. 141
The serious depletion of **groundwater** in the Ogallala aquifer highlights a key example of **sustainable development** in mid-western North America. There is widespread concern that this important source of water is drying up. If excessive use of this water supply is not curtailed, **drought** conditions could result in this key region of **agriculture**.
22. **Return of the Soviet Empire**, *World Press Review*, April 1994. 147
Possible changes and realignments in the **geopolitical** stance of the post-Soviet Union seem to be underway. In this series of related articles, the prospect of a newly emerging Soviet empire seems ominously real.

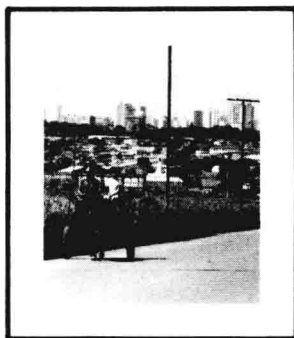


Unit 4

Spatial Interaction and Mapping

Eight articles discuss the key theme in geographical analysis: place-to-place spatial interaction. Human diffusion, transportation systems, urban growth, and cartography are some of the themes examined.

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| 23. Transportation and Urban Growth: The Shaping of the American Metropolis , Peter O. Muller, <i>Focus</i> , Summer 1986. | 154 |
| Peter Muller reviews the importance of transportation in the growth of American urban places . The highly compact urban form of the middle nineteenth century was transformed in successive eras by the electric streetcar, highways, and expressways. The city of the future may rely more on communication than on the actual movement of people. | |
| 24. Hispanic Migration and Population Redistribution in the United States , Kevin E. McHugh, <i>The Professional Geographer</i> , November 1989. | 162 |
| The Hispanic population in the United States has grown rapidly over the last two decades. Kevin McHugh highlights aspects of Hispanic migration , the concentration of Hispanics regionally , and recent redistributions. | |
| 25. The Channel Tunnel , Roger Vickerman, <i>Geography Review</i> , May 1994. | 168 |
| The Channel Tunnel between England and France ushered in a new era in transportation . The corridor makes England more accessible to all points in Europe. | |
| 26. The New White Flight , William H. Frey, <i>American Demographics</i> , April 1994. | 173 |
| In a number of U.S. states, high levels of minority immigration from other countries appears to be driving low- and middle-income whites away. William Frey reviews the new dynamics of migration within the United States. | |
| 27. Asians in the Suburbs , William P. O'Hare, William H. Frey, and Dan Fost, <i>American Demographics</i> , May 1994. | 179 |
| Asian Americans are migrating in greater numbers to the suburbs surrounding large cities. In 1990, 25 metropolitan areas had at least 25,000 Asian American suburban dwellers. | |
| 28. An Alternative Route to Mapping History , J. Brian Harley and David Woodward, <i>Américas</i> , November 5, 1991. | 184 |
| The authors present an intriguing analysis of early mapmaking and cartography . The major thrust of their work centers on the impact maps have had on society. For instance, Ptolemy's second century maps used a system of spatial reference that was perceived in the Renaissance as a source of power. | |



Unit 5

Population, Resources, and Socioeconomic Development

Seven articles examine the effects of population growth on natural resources and the resulting socioeconomic level of development.

29. **A Sense of Where You Are**, *U.S. News & World Report*, April 15, 1991. 190

The application of computers to **cartography** has created whole new worlds of maps. Electronically derived maps become available through the rapidly growing technology called "**geographic information systems**," or **GIS**. Electronic maps are revolutionizing cartography specifically and geography generally.

30. **The New Cartographers**, Gregory T. Pope, *Omni*, December 1991. 193

GIS (geographic information systems) technology is being used to create models of the future for **land-use** planners. **Computer mapping** not only allows people to make more accurate maps faster and cheaper, but it also allows them to manage the areas mapped. Surveyors can now rely on satellite inputs from the **Global Positioning System (GPS)** to greatly improve surface mapping.

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31. **Population Policy Options in the Developing World**, John Bongaarts, *Science*, February 11, 1994. 198

John Bongaarts proposes new approaches to curbing rapid **population** growth in the **developing world**. He stresses the need for measures to limit population momentum and to reduce high demand for births.

32. **Vicious Circles: African Demographic History as a Warning**, Timothy C. Weiskel, *Harvard International Review*, Fall 1994. 204

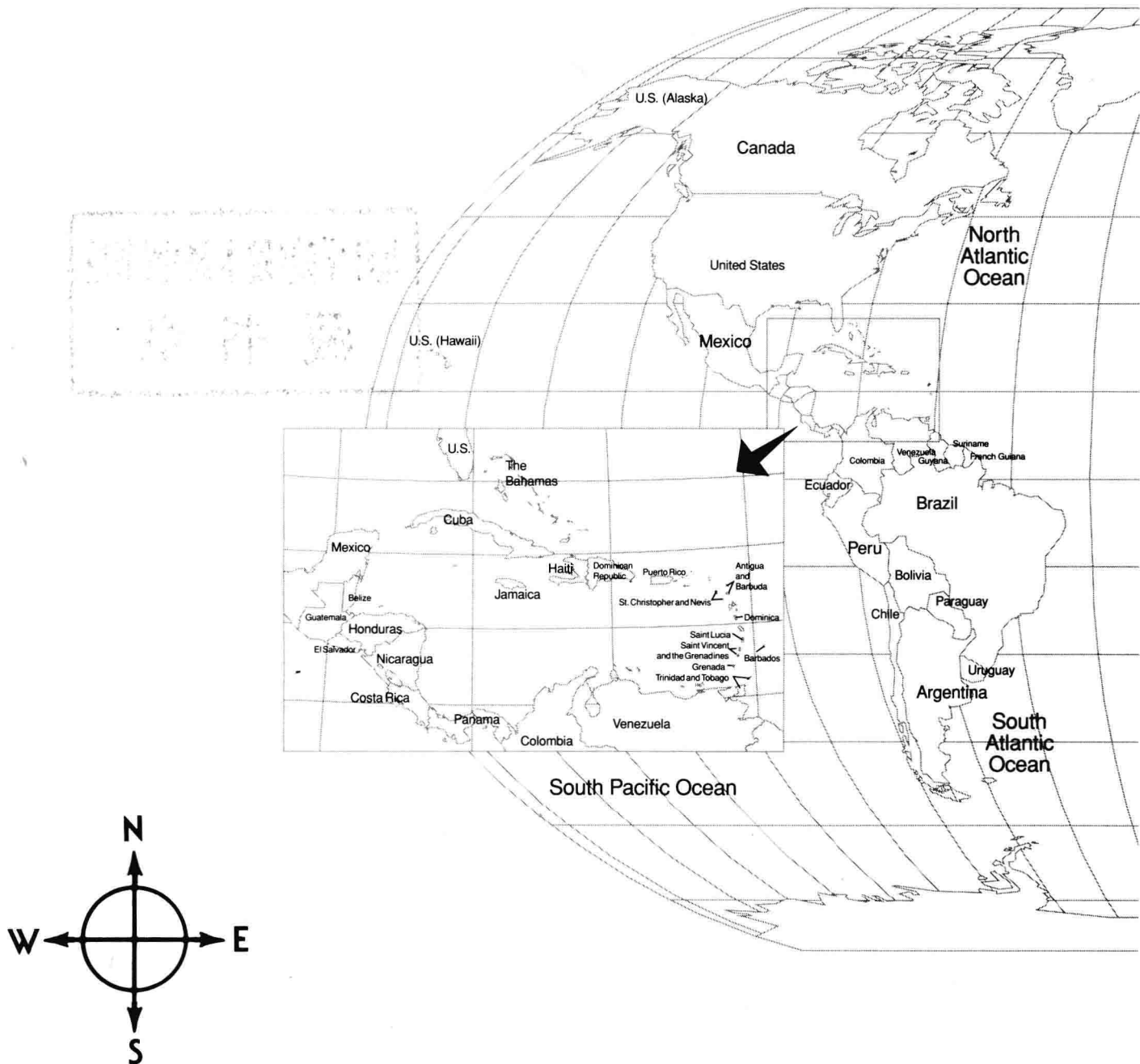
Timothy Weiskel calls into question the old adage, "**Development** is the best contraceptive." Early population projections for developing countries were based on the **demographic transition** model, an application now deemed inappropriate for the **developing world**.

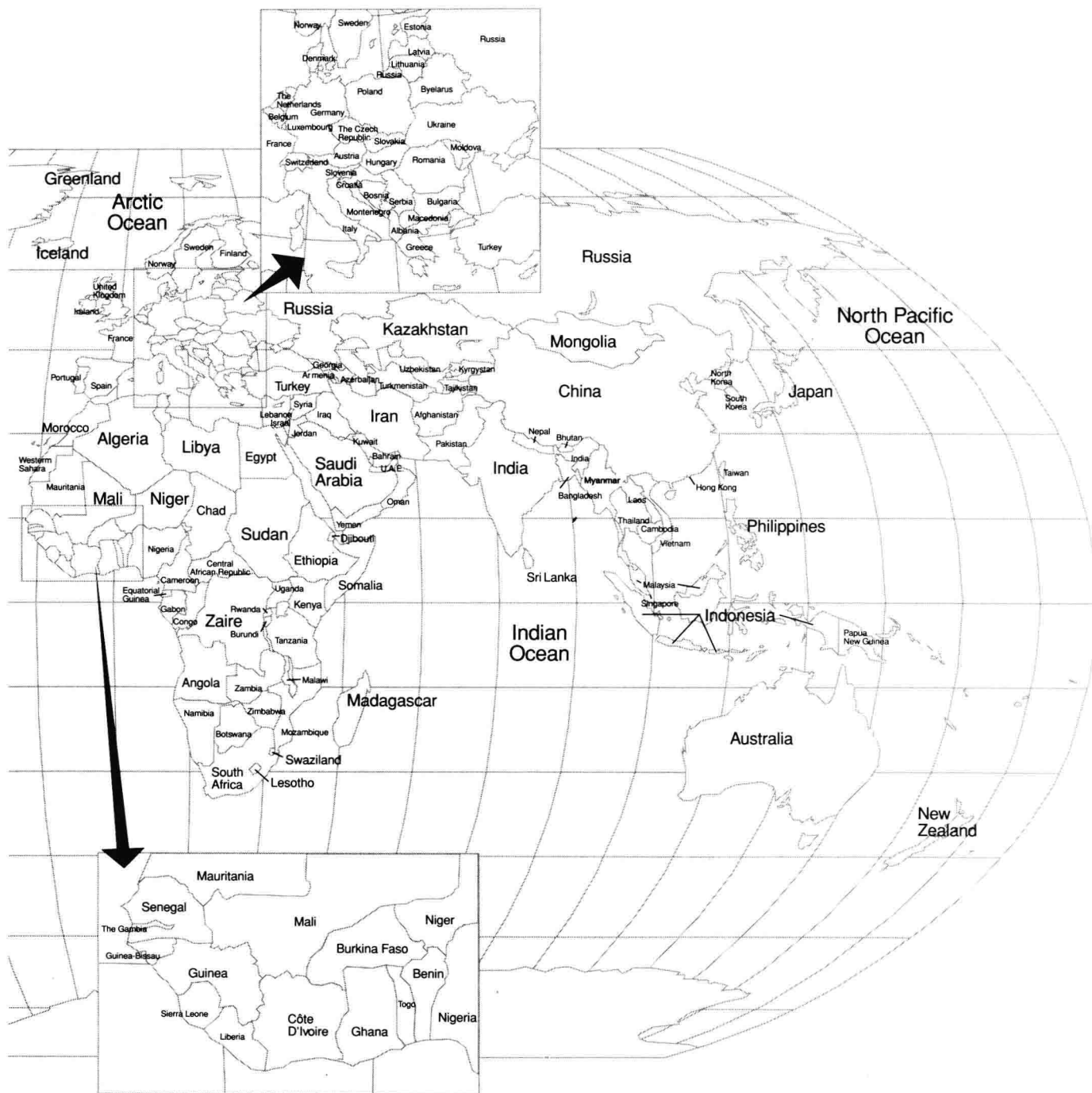
33. **Can the Growing Human Population Feed Itself?** John Bongaarts, *Scientific American*, March 1994. 209

Many experts regard the prospects for producing enough food for a world **population** of 10 billion by 2050 as bleak. Others are optimistic. Despite anticipated increases in **agricultural yields**, the problem of providing sufficient amounts of food in the future is greatly impaired as global population increases.

34. The Landscape of Hunger , Bruce Stutz, <i>Audubon</i> , March/April 1993.	215
As the world's population grows, an enormous strain is put on the ability of many countries to feed their people. Past attempts to develop methods and systems to grow food have met with discouraging results, but, as this article points out, there are possible solutions .	
35. We're All Minorities Now , Martha Farnsworth Riche, <i>American Demographics</i> , October 1991.	221
The United States is fast becoming a truly multicultural society. Through changes in migration patterns and increased national birthrates among ethnic groups, minorities are increasing in numbers. The spatial patterns of ethnic concentration in the United States are decidedly uneven.	
36. Why Africa Stays Poor, and Why It Doesn't Have To , David Aronson, <i>The Humanist</i> , March/April 1993.	225
Sub-Saharan Africa is a region of compelling challenge in economic development. High population growth rates and severe economic problems coupled with civil war, ethnic strife, and land degradation leave much of the region in a dismal state. The author contends that the West could do much more to alleviate suffering and to bolster regional development in sub-Saharan Africa.	
37. Refugees: The Rising Flood , Kathleen Newland, <i>World Watch</i> , May/June 1994.	231
As the number of refugees worldwide increases (from less than 2 million in 1960 to over 18 million in 1992), more countries are placing restrictions on accommodating them. People become refugees for a host of reasons: political, economic, ethnic tensions, human rights violations, and even environmental degradation . Kathleen Newland discusses ways to prevent people from becoming refugees.	
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This map has been developed to give you a graphic picture of where the countries of the world are located, the relationship they have with their region and neighbors, and their positions relative to the superpowers and power blocs. We have focused on certain areas to more clearly illustrate these crowded regions.





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Topic Guide

This topic guide suggests how the selections in this book relate to topics of traditional concern to students and professionals involved with the study of geography. It is useful for locating articles that relate to each other for reading and research. The guide is arranged alphabetically according to topic. Articles may, of course, treat topics that do not appear in the topic guide. In turn, entries in the topic guide do not necessarily constitute a comprehensive listing of all the contents of each selection.

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Arid Lands	12. Threat of Encroaching Deserts	Geographic Information Systems (GIS)	See Computer Mapping
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Climatic Change	8. Is Our Climate Unstable?	Geopolitical	3. Coming Anarchy 17. Middle East Geopolitical Transformation 22. Return of the Soviet Empire
Coastlines	10. It Comes Down to the Coasts	Global	7. Averting a Disaster 15. Rise of the Region State 20. Does It Matter Where You Are?
Communication	23. Transportation and Urban Growth	Global Positioning System (GPS)	30. New Cartographers
Computer Mapping	29. Sense of Where You Are 30. New Cartographers	Global Warming	4. What's Wrong with the Weather? 5. Beaches on the Brink
Conservation	7. Averting a Disaster 12. Threat of Encroaching Deserts	Greenhouse Effect	4. What's Wrong with the Weather?
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Migration	24. Hispanic Migration and Population Redistribution 26. New White Flight 27. Asians in the Suburbs 35. We're All Minorities Now	Satellite	12. Threat of Encroaching Deserts
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Geography in a Changing World

What is geography? This question has been asked innumerable times. It is a question that has not elicited a universally accepted answer, even from those who are considered to be members of the geography profession. The reason lies in the very nature of geography as it has evolved through time.

Geography is an extremely wide-ranging discipline, one that examines appropriate sets of events or circumstances occurring at specific places. Its goal is to answer certain basic questions.

The first question, "Where is it?" establishes the location of the subject under investigation. The concept of location is very important in geography, and its meaning extends beyond the common notion of a specific address or the determination of the latitude and longitude of a place. Geographers are more concerned with the relative location of a place and how that place interacts with other places both far and near. Spatial interaction and the determination of the connections between and among places are important themes in geography.

Once a place is "located," in the geographer's sense of the word, the next question is, "Why is it here?" For example, why are people concentrated in high numbers on the North China Plain, in the Ganges River Valley in India, and along the eastern seaboard in the United States? Conversely, why are there so few people in the Amazon Basin and the Central Siberian Lowlands? Generally, the geographer wants to find out why particular distribution patterns occur and why these patterns change over time.

The element of time is another extremely important ingredient in the geographical mix. The discipline is most concerned with the activities of human beings, and human beings bring about change. As changes occur, new adjustments and modifications are made in the distribution patterns previously established. Patterns change, for instance, as new technology brings about new forms of communication and transportation, and as once-desirable locations decline in favor of new ones. For example,

people migrate from once-productive regions such as the Sahel when a disaster such as drought visits the land. Geography, then, is greatly concerned with discovering the underlying processes that can explain the transformation of distribution patterns and interaction forms over time. Geography itself is dynamic as it adjusts as a discipline to handle new situations in a changing world.

Geography is truly an integrating discipline. The geographer will assemble evidence from many sources in order to explain a particular pattern or ongoing process of change. Some of this evidence may even be in the form of concepts or theories borrowed from other disciplines. The first three articles of this unit provide insight into both the conceptual nature of geography and the development of the discipline over time.

Throughout its history, four main themes have been the focus of research work in geography. These themes or traditions, according to William Pattison in "The Four Traditions of Geography," link geography with earth science, establish it as a field that studies land-human relationships, engage it in area studies, and give it a spatial focus. Although Pattison's article first appeared over 30 years ago, it is still referred to and cited frequently today. Much of the geographical research and analysis engaged in today would fall within one or more of Pattison's traditional areas, but new areas are also opening for geographers. In a particularly thought-provoking essay, the eminent author Barry Lopez discusses local geographies and the importance of a sense of place. In Robert Kaplan's article, "The Coming Anarchy," a startling scenario is presented about the destruction of the social fabric of our planet.

Research into apparently abnormal weather shifts in recent years is addressed in the article "What's Wrong with the Weather?" An example of erratic weather and a much higher evidence of storminess is found in "Beaches on the Brink."

The article "The New Downtowns" provides an analysis of significant changes under way in the structure of