

HARM J. DE BLIJ / PETER O. MULLER / FIFTH EDITION

GEOGRAPHY

REGIONS AND CONCEPTS

5th E D I T I O N

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REGIONS AND CONCEPTS

HARM J. DE BLIJ

UNIVERSITY OF MIAMI

NATIONAL GEOGRAPHIC SOCIETY

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REGIONS AND CONCEPTS

To The Student: A Study Guide for the textbook is available through your college bookstore under the title *Study Guide to Accompany Geography: Regions and Concepts*, 5th edition, by Harm J. de Blij and Peter O. Muller. The Study Guide can help you with course material by acting as a tutorial, review, and study aid. If the Study Guide is not in stock, ask the bookstore manager to order a copy for you.



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*To **Christa L. M. Muller**,
whose arrival has reminded us that
the world is dynamic and full of surprises*

PREFACE

The fifth edition of *Geography: Regions and Concepts* retains the structure and contents of its predecessor but introduces numerous additions and updates in the cartography, text, and supplemental materials. Nearly every map has been revised, with population symbols updated to 1990 based on demographic projections. Moreover, all map contents have been catalogued and listed alphabetically in our new *gazetteer* or geographical index; this new reference system, in conjunction with our extensive base-map coverage of each geographic realm plus our collection of global maps of major human and physical phenomena, amounts to nothing less than an *atlas* of the world's key places.

The text additions continue the directions we took in the previous edition. The introductory chapter now has a major essay too: a global-scale overview of *core-periphery relationships* in connection with our discussion of developed and underdeveloped countries. Our concern with world geographical problems has been expanded in new boxes and chapter sections that cover tropical deforestation (Chapter 4), Third World urbanization (Chapter 5), hunger in the (northern) African Transition Zone (Chapter 6), the changing social geography of the European city (Chapter 1), the geography of cocaine in South America (Chapter 5), and the application of the insurgent-state

model to Central America (Chapter 4). Additions of similar length have been made where we felt gaps existed: India's wet monsoon (Chapter 8), Soviet energy developments (Chapter 2), Amazonia's booming frontiers (Brazil vignette), China's Special Economic Zones (Chapter 9), and the newest principles governing the political geography of the oceans (Chapter 10). We have also expanded our coverage of individual countries (in recognition of this increasingly popular approach to the teaching of world geography), and intend to continue this in future editions; among the country profiles added here are the seven Central American republics, South Africa (entirely rewritten as a separate vignette following Chapter 7), Libya, Madagascar, Nepal, and most of the states of Southeast Asia.

As for supplementary materials, three major additions were made: (1) Appendix B, an essay entitled *Opportunities in Geography* that focuses on the discipline of geography, the training of a professional geographer, and career options; (2) substantially expanded bibliographies; and (3) pronunciation guides for each chapter and vignette. The *Opportunities* essay is self-explanatory, and is meant to assist instructors in answering their students' oft-asked question, "What can one do with geography?" The References and Further Readings section at the end of each chapter and vig-

nette was enlarged for two reasons. First, we wish to better convey to readers the richness of the (often interdisciplinary) literature on the geography of each major region; lest the most basic works become eclipsed in such a lengthy listing, we have starred the key introductory books. Our second reason is that we believe more and more students will be making use of the bibliography as a research tool to undertake writing assignments in the subject. At our university, for instance, research papers are required in the Honors sections of the World Regional Geography course. Research papers are again becoming a vital part of the learning experience, and "writing courses" may soon become widespread in American higher education. Accordingly, we have prepared more comprehensive bibliographies with fuller citations that facilitate entry into the computerized card catalogues of today's college and university libraries.

The pronunciation guides—located at the end of each chapter and vignette—should significantly enhance the overall presentation. In choosing words for inclusion (largely place names), we decided not to list words that were pronounced the way they were written unless we thought mispronunciation was likely. Although we strove for authenticity throughout, we aimed for Americanized rather than native-lan-

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guage pronunciations. For many words, our initial guide was the 1984 edition of *Webster's New Geographical Dictionary*. In choosing the phonetic presentation system, we kept things as simple as possible by avoiding a formalized symbol system that would have required constant decoding. Therefore, we employed a syllabic phonetic-spelling system with stress syllables italicized (for example, we pronounce our surnames *duh-blay* and *mull-uh*). The most frequently used vowel sounds would translate as follows: *ah* as in father; *oh* as in tone; *au* as in out; and *uh* as in banana.

The population figures used in the text are our projections for 1988 (unless otherwise indicated), and are consistent with the national demographic data displayed in Appendix A. The chief source that we used as a basis for developing our projections was the 1986 *World Population Data Sheet* published by the Population Reference Bureau, Inc. The source of urban population figures, which entail a far greater problem in reliability and com-

parability, was *Patterns of Urban and Rural Population Growth*, a 1980 publication of the United Nations Department of International Economic and Social Affairs; 1988 estimates are used throughout the text, and they represent *metropolitan-area totals* unless otherwise specified.

Besides the aims that have characterized this book since its initial publication in 1971, we have been guided by an additional purpose during the preparation of this edition: increasing the international awareness of U.S. college and university students. In recent years, a great deal has been said and written about the inadequate geographical and international knowledge of the American people. We believe the study of world regional geography is an ideal way to combat that ignorance.

Finally, to the student reader about to embark on the exploration of world geography, we leave you with the following exhortations offered by the author, James Michener, in his 1970 article in *Social Education* (pp. 764-766):

*The more I work in the social-studies field the more convinced I become that geography is the foundation of all. . . . When I begin work on a new area—something I have been called upon to do rather frequently in my adult life—I invariably start with the best geography I can find. This takes precedence over everything else, even history, because I need to ground myself in the fundamentals which have governed and in a sense limited human development. . . . If I were a young man with any talent for expressing myself, and if I wanted to make myself indispensable to my society, I would devote eight or ten years to the real mastery of one of the earth's major regions. I would learn languages, the religions, the customs, the value systems, the history, the nationalisms, **and above all the geography** [emphasis added], and when that was completed I would be in a position to write about that region, and I would be invaluable to my nation, for I would be the bridge of understanding to the alien culture. We have seen how crucial such bridges can be.*

ACKNOWLEDGMENTS

In the course of this latest revision, we were fortunate to receive advice and assistance from many people.

One of the rewards associated with the publication of a book of this kind is the correspondence and other feedback that it generates. Over the years, we have heard from colleagues, students, and lay readers. Geographers, economists, political scientists, education specialists, and others have written us, almost always with helpful suggestions, often with fascinating enclosures. We have responded personally to every such letter, and our editor has communicated with many of our correspondents as well. We have, moreover, considered every suggestion made—and many who wrote or transmitted their reactions through other channels will see their recommendations in print in the current edition. The list that follows is merely representative of a group of colleagues across North America to whom we are grateful for taking the time to share their thoughts and opinions with us.

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We also wish to single out a number of geographers for special mention. Our colleague at the University of Miami, John (Dick) Stephens, undertook an exhaustive review of the entire map program, and most of the cartographic improvements in this edition are the direct result of his analysis and recommendations. The work of Stephen S. Birdsall (University of North Carolina), who in previous editions contributed much of Chapters 3 and 7, continues to enhance our presentation, and his incisive imprint is especially evident in the Systematic Essay and Model Box in the Subsaharan Africa chapter. Gene C. Wilken of the Department of Economics at Colorado State University, once again, submitted detailed lists that he and his students compiled showing us where the written text could be made more accurate and effective. James P. Allen (California State University, Northridge) offered thoughtful advice about global core-periphery relationships, which resulted in the writing of the Opening Essay that was newly added to the introductory chapter. Arthur J. Krim (Salve Regina—The Newport College) provided us with a meticulous review of the entire text, offering many valuable suggestions and making us more aware of the rich supplemental materials that instructors often distribute to their students. Our task of compiling the pronunciation guide, which also appears for the first time in this fifth edition, benefited from the regional expertise of our Miami colleagues Thomas D. Boswell, Ira M. Sheskin, John D. Stephens, and Gerald G. Curtis (Department of Foreign Languages and Literatures); we are particularly grateful to two Asian specialists, Melinda S. Meade (University of North

Carolina) and Clifton W. Pannell (University of Georgia), for their kind assistance with the rather more complex pronunciations in the respective chapters on Southeast Asia and China. Lloyd K. Townsend is the artist who created the remarkable painting of the genesis of India's wet monsoon (Fig. 8-4), and we are delighted to include his work beginning with this edition. The revision and updating of a book of this kind always requires special materials, and we have been fortunate to have received the enthusiastic help of: Ralph S. Clem (Florida International University), Soviet ethnic data; Ray Henkel (Arizona State University), who made available his excellent unpublished study entitled "Regional Analysis of the Latin American Cocaine Industry"; John M. Hunter (Michigan State University), new publications on medical geography; Jay M. Savage (University of Miami-Biology), photos of deforested landscapes; Rolf Sternberg (Montclair State College), South American publications; and Richard W. Wilkie (University of Massachusetts), cartographic base materials for Fig. B-6. The gazetteer, another new feature of this edition, was painstakingly compiled by Betsy Muller, who generously gave us considerable time during her summer vacation in both 1986 and 1987. Finally, we acknowledge with appreciation the comments of several anonymous reviewers, all of which were carefully considered during the revision process. The remaining errors are, of course, ours alone.

At the University of Miami's Department of Geography, we are indebted to everyone for their support. Our faculty colleagues—Tom Boswell, Don Capone, Jim DeMeo, Ira Sheskin, Dick

Stephens, and Jerry Webster (now at the University of Wyoming)—are all involved in the teaching of world regional geography, and their constant stream of good-natured challenges mixed with candid advice was invaluable throughout the two-year revision project. A variety of crucial supporting tasks were cheerfully and tirelessly performed by our office staff: Lourdes Rivera (senior secretary), Ivonne O'Donnell, and the newly-arrived Nancy Gutierrez. Others who helped on various occasions were Wendy Lewengrub, Jackie Luis, Henry Viscarra, and Robert Petrucci; Dr. Sandra Mohl of Richter Library kindly provided us with international-business-related data. We also fondly recall the many efforts on behalf of this book made by our late department secretary, Esther Nedelman.

At the National Geographic Society in Washington, we thank Marta M. Marschalko, who allowed neither aberrant times nor abnormal distance to impede the flow of communication between us; Mary G. Smith, who assisted us in connection with the impressive Townsend painting; and Lyle Rosbotham, who knows amateur photography when he sees it.

From beginning to end, the preparation of this handsome fifth edition has benefited from the professionalism of the staff at John Wiley. Ellen Brown and Linda Muriello supervised the production of this book with great efficiency and good humor, making us feel as though we were the only authors with whom they were working. Madelyn Lesure was the designer of this new edition, and deserves much of the credit for the physical appearance of the final product. We are also indebted to our three (!) map coordinators—Gigi Ghiskey,

Lisa Heard, and Martin Bentz—who performed diligently and succeeded each other without interruption to the ongoing cartographic revision process (the most extensive since the second edition). It was a particular pleasure to work with the director of our photography program, Safra Nimrod, who tirelessly searched for the transparencies we needed and constantly upheld the highest esthetic standards. Copyediting chores were handled again by Andrew Yockers, this time supervised by Josh Spieler. Others at Wiley who provided support were Pam McGreevy, Alex Juliani, Connie Rende, and Rick Leyh; and again we must thank the company's South Florida representative, Jim Dewberry, for all his courtesies and efforts on our behalf.

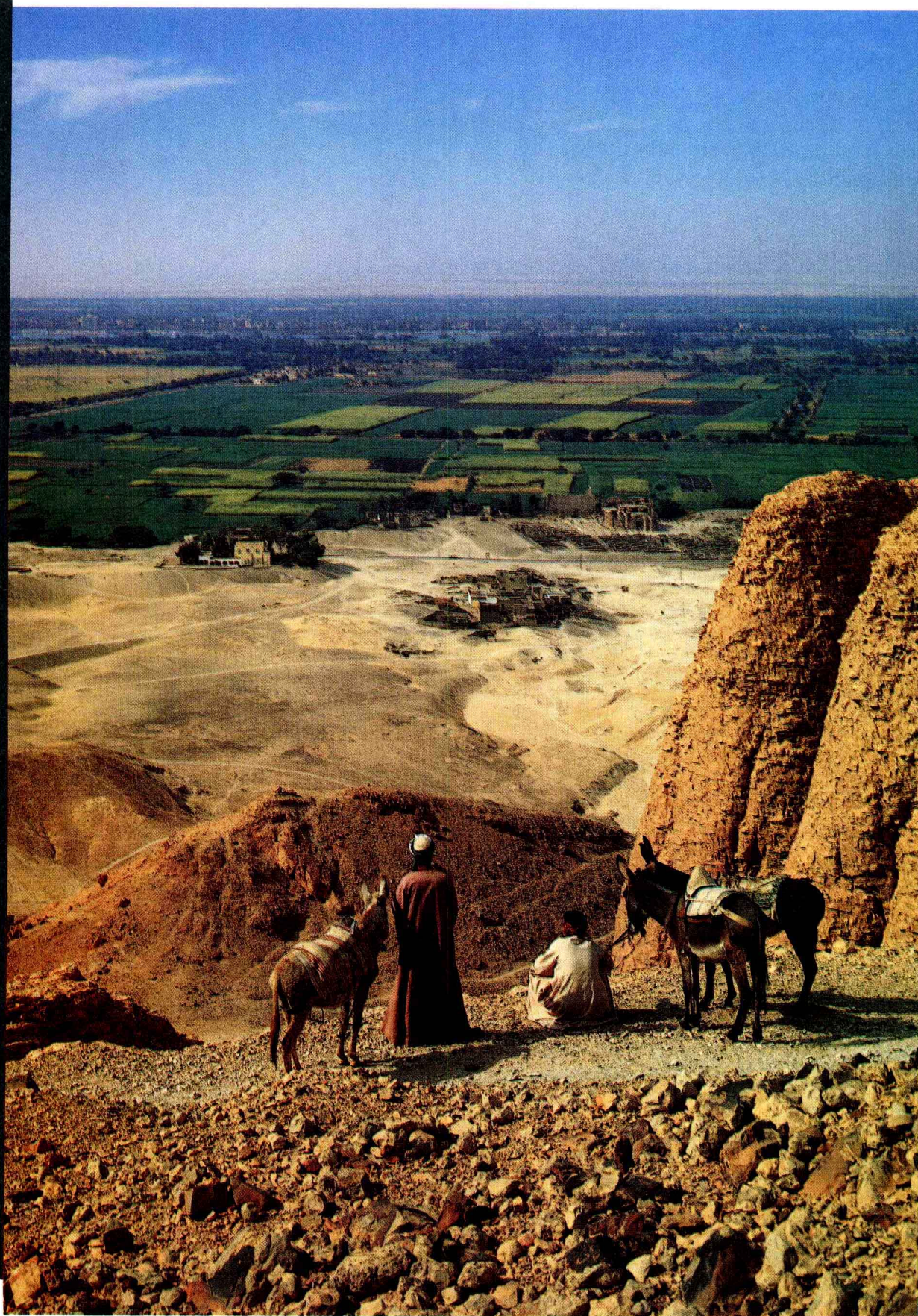
This revision also marks our final collaboration with Katie Vignery, whose tenure as Wiley Geography Editor came to an end in mid-1987. We shall miss her greatly because she was a central figure in our professional lives these past six years—between us, we created six books with her support and guidance, including two editions of this one. She was a constant source of encouragement, a talented producer of quality textbooks, and a good friend. Katie will also be missed by the many geographers she encountered in her travels and at the professional meetings of the Association of American Geographers. We are pleased that she will maintain contact with geography in her new position at another publisher, and we wish her every success and happiness.

And finally, no matter how many times we compose these acknowledgments, we always come back to realizing the enormous contributions made by our wives, Bonnie and Nancy. In so many ways they are our silent co-authors, willing at a moment's notice to offer just the right encouragement or editorial advice to keep us going.

August 21, 1987 **Harm J. de Blij**
Coconut Grove,
Florida

Peter O. Muller
Coral Gables,
Florida

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This is a book about the world's great realms, surveyed and discussed in geographical perspective. Each of the major geographic realms of the human world (such as Europe, North America, or South Asia) possesses

a special combination of cultural, environmental, historical, economic, and organizational qualities. These characteristic properties are imprinted on the landscape, giving each region its own flavor and social milieu. Geographers take a particular interest in the way people have decided to arrange and order their living space. The street pattern of a traditional Arab town differs markedly from the layout of a Chinese place of similar size. The fields and farms of Sub-Saharan Africa look quite unlike those of the Soviet Union. Thus, the study of world realms also provides the opportunity to examine the concepts and ideas that form the basis of the modern field of geography. These are our twin objectives.

CONCEPTS OF REGIONS

Modern scientific concepts can often be complicated mathematical constructions, but we use others, almost without realizing it, in our everyday conversation. Among the most fundamental concepts of geography are those involving the identification, classification, and analysis of regions. When we refer to some part of our country (the Midwest, for example), or to a distant area of the world (such as the Middle East), or even to a

section of the metropolitan area in which we may live (the inner central city, for instance), we employ a regional concept. We reveal our perception of distant or local space, our mental image of the region to which reference is made.

Everyone has some idea of what the word **region** means, and we use the regional concept frequently in its broadest sense as a frame of reference. But regional concepts are anything but simple. Take just one implication of a regional name just used: the Midwest. If the Midwest is indeed a region of the United States, then it must have limits. Those limits, however, are open to debate. In his book *North America*, John Paterson states that the Midwest includes the states of Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, and Missouri, "but in the cultural sense it can also be said to include much of the area of heavy industry in Pennsylvania and West Virginia." Compare this definition to that of Otis Starkey, J. Lewis Robinson, and Crane Miller, who define the Midwest in their book *The Anglo-American Realm* as consisting of "most of the west North Central states [North and South Dakota, Nebraska, Kansas, Minnesota, Iowa, and Missouri] to which have been added the western parts of Wisconsin and Illinois."

These two perceptions of the

FIGURE I-1 Regional boundary: the edge of the Nile Valley in central Egypt.

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Midwest as an American region obviously differ. Does this invalidate the whole idea of an American Midwest? Not necessarily: the apparent conflict arises from the use of different *criteria* to give specific meaning to a regional term that has long been a part of American cultural life. Your own personal impression of the Midwest as a region is based on certain properties you have reason to consider important. When you add to your information base, you may modify your definition. Regionalization is the geographer's means of classification or taxonomy, and regions, like all classes, have their bases in established criteria. Classification schemes are open to change as new knowledge emerges, and so are regional definitions. A 1985 study of the Midwest underscores this. James Shortridge surveyed college students in 32 states and discovered a sizable majority shared the perception of Starkey and his co-authors that favored a more westerly delimitation of the region that excluded Michigan and Ohio. This finding was consistent with other definitional variables and is probably related to the continuing overall shift of the population of the United States toward the west (and the southern-tier Sunbelt).

Regions obviously have **location**. Various means can be employed to identify a region's position on the globe, as the authors quoted above did when they enumerated the states that form part of their conception of the American Midwest. Often a region's name reveals much about its location. During the Vietnam War (1964–1975) the name *Indochina* became familiar to us; it is a regional appellation that identifies an area in Southeast Asia that has received cultural infusions from India and human migrations from China. Sometimes we have a particular land-

scape in mind when we designate a region—for example, the Amazon Basin or the Rocky Mountains. It would also be possible, of course, to denote a region's location by reference to the earth's grid system and to record its latitude and longitude. That would give us the extent of its **absolute location**, but such a numerical index would not have much practical value. Location attains relevance only when it relates to other locations. Hence, many regional names give reference to other regions (*Middle America*, *Eastern Europe*, *Equatorial Africa*). This indicates a region's **relative location**, a much more meaningful and practical criterion.

Regions also have **area**. Again, this appears to be so obvious that it hardly requires emphasis, but some difficult problems are involved here. For example, certain regions are identified as the (San Francisco) Bay Area, the Greater New York Area, or Chicagoland. Everyone would probably agree that each of these areas is focused on a few internal urban concentrations, but what are the limits or boundaries of such metropolitan-centered regions? In quite another context, we use such terms as the *Corn Belt*—an agricultural region in the central United States—and the *Sunbelt*—a broad zone across the southern United States that attracts a growing number of migrants (and employers) who seek to escape the rigors of northern winters. The geographical or **spatial** extent of a region, whether Bay Area or Corn Belt, Midwest or Middle East, cannot be established and defined without reference to its specific areal contents.

An overriding characteristic of a region's contents may be its *homogeneity* or sameness. Sometimes the landscape leaves no doubt where one region ends and another begins: in Egypt, the

break between the green, irrigated, cultivated lands adjacent to the Nile River and the desert beyond is razor-sharp and all-pervading (Fig. 1–1). On the map, the line representing that break is without question a regional boundary. Everything changes beyond that line—population density, vegetation, soil quality, land use. But regional distinctions are usually not always so clear. The example of the U.S. Corn Belt (mapped in Fig. 3–25) provides a good contrast. Traveling northward from Kentucky into Illinois or Indiana, you would undoubtedly be struck by the increasing number of cornfields. Since not all farmland is under corn, even within the Corn Belt, the difference between what you saw in Kentucky and Illinois is a matter of degree. Therefore, in order to define a Corn Belt and represent it on a map, it would be necessary to establish a criterion—for instance, 50 percent or more of all the cultivated land must be devoted to growing corn. The line so drawn would delimit an agricultural region, but on the landscape it would be far less evident than the border enclosing Egypt's Nile Valley farmlands.

It is possible, of course, to increase the number of ingredients so that more than one condition must be satisfied before the region is delimited. To define a particular cultural region such criteria as the use of a certain language, adherence to a specific religion, perhaps even the spatial variations of architectural, artistic, and other traditions might be simultaneously employed. Maps of the cultural geography of Canada, including those showing religious affiliation, dominant language spoken, land division, and settlement patterns, reveal the reality of Quebec as a discrete region within the greater Canadian framework.