

FIFTH EDITION

HUMAN GEOGRAPHY

LANDSCAPES OF HUMAN ACTIVITIES



FELLMANN • GETIS • GETIS

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LANDSCAPES OF HUMAN ACTIVITIES

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PREFACE



his fifth edition of *Human Geography* preserves the pattern set by its predecessors. Designed for students enrolled in a one-semester or one-quarter course, it seeks to introduce them to the scope and excitement of human geography while making clear the relevance of its content to their daily lives and roles as citizens of an increasingly interrelated world community. To that end, the current edition builds on the extensive revisions that marked the earlier ones, making selective, significant changes in text but not in basic subject matter or topical sequence.

Some of the alterations represent expansions or contractions of text coverage in response to user advice or requests. Others reflect data, research results, and interpretations newly available since the last edition. Finally, of course, rapidly changing world political, social, and economic events have made obsolete many of the patterns and interactions that were considered fundamental and controlling in the recent past. In consequence, corresponding alterations in text descriptions and maps have been required and made.

All textbook authors strive to be current in their data and relevant in their interpretations. The rapidity of late 20th-century changes in economic, political, social, and population structures and relationships makes those goals elusive and unrealistic. The time lapse between world events and the publication date of a book means inevitably that events will outpace analysis. The further delay between the time of book publication and actual class assignment means that at best, some of the text's content will be out of date and at worst, some may be glaringly wrong at the time of student use. Not since the post-World War II period of rapid decolonization and political and economic realignments has the partnership between geography textbook authors and classroom instructors been more essential and mutually supportive than it is now. We have done our best in the text of this fifth edition to reflect world events and patterns evident and in place at the time of its final editing. We—and most importantly, the students—rely on the instructor to provide the currency of information and the interpretation of new patterns of human geographic substance essential to correct a text overtaken by events.

These concerns with current events do not diminish the importance we place on the basic content and enduring values we attempt to incorporate in the book. We recognize, for example, that for many of its readers their course in human geography may be their first or only work in geography and this their first or only textbook in the discipline. For those students particularly, we take seriously the obligation not only to convey the richness and breadth of human geography but also to give insight into the nature and intellectual challenges of the field of geography itself.

Chapter 1 addresses that goal of disciplinary overview, introducing geography as an enduring and meaningful orientation of intellect and action and identifying the place of human geography within the larger field of study. It reviews the scope, methods, and “background basics” of geography, including the unifying questions, themes, and concepts that structure all geographic inquiry and the tools—especially maps—that all geographers employ. It is supplemented by Appendix A that gives a more detailed treatment of map projections than is appropriate in a general introductory chapter. We realize, of course, that not all instructors will find either this chapter or the projections appendix necessary to the course as they teach it. Both are designed to be helpful, with content supportive of, not essential to, the later chapters of the text.

The arrangement of those chapters reflects our own sense of logic and teaching experiences and follows the ordering of material in earlier editions of *Human Geography*. The chapters are unevenly divided among five parts, each with a brief orienting introduction. We begin by examining the basis of culture, culture change, and cultural regionalism. We then proceed to a review of concepts and models of spatial interaction and spatial behavior, and complete Part I with a consideration of population structures, patterns, and change. Parts II through IV (Chapters 5 through 12) build on the fundamentals of the early chapters to examine the landscapes of culture and organization resulting from human occupation of the earth and from spatial similarities and differences that occupation has engendered. These include cultural patterns of linguistic, religious, ethnic, folk, and popular geographic differentiation of peoples and societies and those of economic, urban, and political organization of space.

Chapter 13—Part V—draws together in sharper focus selected aspects of the human–environmental interface, of the human impact on the natural landscape. It documents in some detail the relationships between human geographic patterns and processes and matters of current national and world environmental concern. Its purpose is to make clear to students the relevance of the earlier-studied human geographic concepts and landscapes to their lives and roles as citizens in a complex, changing world.

Among those concepts, of course, is the centrality of gender issues. Socially created distinctions between male and female role assignments and rewards are cultural spatial variables that underlie all facets of human geographic inquiry. Because they are so pervasive and significant, we felt it unwise to relegate their consideration to a single separate chapter. To do so would artificially and arbitrarily isolate women and women's concerns from all the topics of human geography for which recognition of gender differences and concerns is relevant. Rather, we felt it much better and more meaningful to incorporate significant gender/female issues within the chapters where those issues apply—either within the running text of the chapter or, very often, highlighted in boxed discussions. Such broader incorporation, we feel, is more appropriate and pointed than segregating women and their interests to an isolated chapter and ignoring them in the remainder of the text.

By means of chapter clusters and sequence, we have tried to convey to students the logic and integration we recognize in the broad field of human geography. Our sense of organization and continuity, of course, is not necessarily that of instructors using this text. Recognizing that, we have designed each chapter to be reasonably self-contained, able to be assigned and discussed in any sequence or combination that satisfies the arrangement preferred by the instructor or found to be of greatest interest to students. It is our firm opinion that the format of any course should reflect the joint contributions of instructor and textbook and not be dictated by the structure of the text alone.

Instructor contributions are gratefully acknowledged by the content changes incorporated in this current edition. They are found throughout the text, perhaps most prominently in the amplification of discussions of migration (Chapter 3), international population policy (Chapter 4), religious landscapes (Chapter 5), ethnicity, race, and the increase in multiethnic societies (Chapter 6), mining on public lands (Chapter 8), transnational corporations (Chapter 9), economic measures of development, development theory, and the role of women in development (Chapter 10), and ethnicity and ethnic change in American cities (Chapter 11). New data and changing world conditions and human geographic patterns—for example, the political restructuring of Eastern Europe and the former USSR—are reflected in text alterations and new maps and photographs. We have continued our practice of using map and photograph captions as teaching opportunities, conveying additional information and explanation as integral parts of the text. The attention

aroused by the graphic is therefore used as an additional tool of instruction, not as a diversion.

As in earlier editions of *Human Geography*, chapter introductions take the form of vignettes designed to capture students' interest, arouse their curiosity in the sketch itself, and sustain their attention for the subject matter that follows. Many of the boxed inserts that are part of each chapter are new to this edition, though they perform the same function as before—expanding on ideas included within the text proper or introducing related examples of applications of chapter concepts and conclusions, often in gender-related contexts. The boxes are not just for “reader relief” but are designed to amplify and instruct. Instructors report that they are valuable as the basis for more extended classroom discussions or for additional lecture topics.

We have included in each chapter at least one special-purpose box labeled “For Your Consideration.” These begin with a discussion of a topic of current national or international interest or debate and conclude with a set of questions designed to induce thought, discussion, and even class argumentation as students debate the subject and view it against the background of human geographic insights they have mastered. The Cairo Conference, the urban homeless, the Official English debate, racial gerrymandering, and foreign aid are among the topics receiving that special treatment.

We also continue our practice of identifying new terms and special usages of common words and phrases by bold-face or italic type. These are included in *Key Words*, a list at the end of each chapter. Boldfaced and italicized words and phrases are defined in an inclusive glossary at the end of the text. As a further student aid, many glossary definitions identify by cross-reference other, related terms that students can review to build up a more inclusive understanding of the item in question.

In addition to its key words list, each chapter also includes a repeated series of pedagogical aids. *Summary* reiterates the main points and arguments of the chapter and provides a bridge linking it to the chapter that follows. *For Review* contains questions that again direct student attention to important concepts developed within the chapter; these questions may serve as study guides for the individual reader or, if the instructor chooses, as the basis for written assignments. *Selected References* suggests a number of book and journal articles that expand on topics presented within the chapter and provide the basis for further study or class paper preparation. Of course, new materials constantly appear, but the suggested titles can serve as a starting point for specific student interests and needs.

Appendix B at the end of the book is a modified version of the Population Reference Bureau's 1996 *World Population Data Sheet* containing economic and demographic data and projections for countries, regions, and continents. Although inevitably dated and subject to change, these statistics will provide for some years a wealth of useful comparative data for student projects, regional and topical analyses, and study of world patterns. Finally, Appendix C is

a single-page “Anglo American Reference Map,” providing name identification of all U.S. states and Canadian provinces and showing the location of principal cities.

To assist the instructor, an *Instructor's Manual* highlights the main ideas of each chapter, offers topics for class discussions, and provides 50 suggested text questions for each chapter. The publisher also makes available a set of slides reproducing maps and drawings in the text; a set of acetate transparencies of key text illustrations, including an expanded collection of North American vernacular house types; computerized testing materials (MicroTest III) for instructors; and a *Study Guide* for students. In addition, instructors may order the text packaged with the *Nystrom Student Atlas* at a significant savings. Also available for packaging is the *Student Atlas of World Politics*. And Brown & Benchmark offers CourseKits™ in which students may purchase the text and the *Annual Editions® Geography* reader at a reduced price.

It is with great pleasure that we repeat our previously acknowledged debts of gratitude to those who have given generously of their time and knowledge in response to our requests. Our departmental colleagues—at the University of Illinois, Urbana–Champaign and at both San Diego State University and the University of California, Santa Barbara—all willingly gave us guidance and help when asked. Among them, particular thanks are owed to Professors John A. Jakle and Colin E. Thorn for permitting us to reproduce some of the many excellent photographs from their personal collections; to John Jakle for advice and information on North American vernacular housing (though any retained errors of fact and interpretation are the authors', not his); to Geoffrey J. D. Hewings who read passages and gave counsel on economic geographic topics; and to Luc Anselin,

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We continue to be indebted to W. D. Brooks and C. E. Roberts, Jr., of Indiana State University for the modified van der Grinten projection used for many of the maps in the book. We gratefully thank these and unnamed others for their help and contributions; none, of course, is responsible for final decisions on content or for errors of fact or interpretation the reader may detect.

A final note of thanks is reserved for the publisher's “book team” members separately named on the copyright page. It is a privilege to emphasize here their professional competence, unflagging interest, and always courteous helpfulness.

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CHAPTER

1



Amish farmers have created an intricate cultural landscape replacing the original natural landscape of Lancaster County, Pennsylvania.

GETTING STARTED

The fundamental question asked by geographers is “Does it make a difference where things are located?” If for any one thing or group of things the answer is “You bet it does,” the geographer’s interest is aroused and geographic investigation is appropriate. For example, it matters a great deal that languages of a certain kind are spoken in certain places. But knowledge of the location of a specific language group is not of itself particularly significant. Geographic study of a language requires that we try to answer questions about why and how the language shows different characteristics in different locations and how the present distribution of its speakers came about. In the course of our study, we would logically discuss such concepts as migration, acculturation, the diffusion of innovation, the effect of physical barriers on communication, and the relationship of language to other aspects of culture. As geographers, we are interested in how things are interrelated in different regions and give evidence of the existence of “spatial systems.”

Geography is often referred to as the *spatial* science, that is, the discipline concerned with the use of earth space. In fact, *geography* literally means “description of the earth,” but that task is really the responsibility of nearly all the sciences. Geography might better be defined as the study of spatial variation, of how—and why—things differ from place to place on the surface of the earth. It is, further, the study of how observable spatial patterns evolved through time. If things were everywhere the same, if there were no spatial variation, the kind of human curiosity that we call “geographic” simply would not exist. Without the certain conviction that in some interesting and important way landscapes, peoples, and opportunities differ from place to place, there would be no discipline of geography.

But we do not have to deal in such abstract terms. You consciously or subconsciously display geographic awareness in your daily life. You are where you are, doing what you are doing, because of locational choices you faced and spatial decisions you made. You cannot be here reading this book and simultaneously be somewhere else—working, perhaps, or at the gym. And should you now want to go to work or take an exercise break, the time involved in going from here to there (wherever “there” is) is time not available for other activities in other locations. Of course, the act of going implies knowing where you are now, where “there” is in relation to “here,” and the paths or routes you can take to cover the distance.

These are simple examples of the observation that “space matters” in a very personal way. You cannot avoid

the implications of geography in your everyday affairs. Your understanding of your hometown, your neighborhood, or your college campus is essentially a geographic understanding. It is based on your awareness of where things are, of their spatial relationships, and of the varying content of the different areas and places you frequent. You carry out your routine activities in particular places and move on your daily rounds within defined geographic areas, following logical paths of connection between different locations.

Just as geography matters in your personal life, so it matters on the larger stage as well. Decisions made by corporations about the locations of manufacturing plants or warehouses in relation to transportation routes and markets are spatially rooted. So, too, are those made by shopping center developers and locators of parks and grade schools. At an even grander scale, judgements about the projection of national power or the claim and recognition of “spheres of influence and interest” among rival countries are related to the implications of distance and area.

Geography, therefore, is about space and the content of space. We think of and respond to places from the standpoint not only of where they are but, rather more importantly, of what they contain or what we think they contain. Reference to a place or an area usually calls up images about its physical nature or what people do there and often suggests, without conscious thought, how those physical things and activities are related. “Colorado,” “mountains,” and “skiing” might be a simple example. The content of area, that is, has both physical and cultural aspects, and geography is always concerned with understanding both (Figure 1.1).

Evolution of the Discipline

Geography’s combination of interests was apparent even in the work of the early Greek geographers, who first gave structure to the discipline. Geography’s name was reputedly coined by the Greek scientist Eratosthenes over 2200 years ago from the words *geo*, “the earth” and *graphein*, “to write.” From the beginning, that writing focused both on the physical structure of the earth and on the nature and activities of the people who inhabited the different lands of the known world. To Strabo (*ca.* 64 B.C.–A.D. 20) the task of geography was to “describe the several parts of the inhabited world . . . to write the assessment of the countries of the world [and] to treat the differences between countries.”



FIGURE 1.1 Ski development at Whistler Mountain, British Columbia: the interaction of physical environment and human activity. Climate and terrain have made specialized human use possible. Human development has placed a cultural landscape on the natural environment, thereby altering it.

Greek (and, later, Roman) geographers measured the earth, devised the global grid of latitudes and longitudes, and drew upon that grid surprisingly sophisticated maps (Figure 1.2). Employing nearly modern concepts, they discussed patterns and processes of climates, vegetation, and landforms and described areal variations in the natural landscape. Against that physical backdrop, they focused their attention on what humans did in home and distant areas—how they lived; what their distinctive similarities and differences were in language, religion, and custom; and how they used, altered, and perhaps destroyed the lands they inhabited.

These are enduring and universal interests. The ancient Chinese, for example, were as involved in geography as an explanatory viewpoint as were Westerners, though there was no exchange between them. Further, as Christian Europe entered its Dark and Middle Ages between A.D. 800 and 1400 and lost its knowledge of Greek and Roman geographical work, Muslim scholars—who retained that knowledge—undertook to describe and analyze their known world in its physical, cultural, and regional variation (see “Roger’s Book”).

Modern geography had its origins in the surge of scholarly inquiry that, beginning in the 17th century, gave rise to many of the traditional academic disciplines we know today. In its European rebirth, geography from the outset was recognized—as it always had been—as a broadly based integrative study. Patterns and processes of the physical landscape were early interests, as was concern with humans

as part of the earth’s variation from place to place. The rapid development of geology, botany, zoology, and other natural sciences by the end of the 18th century strengthened regional geographic investigation and increased scholarly and popular awareness of the intricate interconnections of things in space and between places. By that same time, accurate determination of latitude and longitude and scientific mapping of the earth made assignment of place information more reliable and comprehensive. During the 19th century, national censuses, trade statistics, and ethnographic studies gave firmer foundation to human geographic investigation.

By the end of the 19th century, geography had become a distinctive and respected discipline in universities throughout Europe and in other regions of the world where European academic examples were followed. The proliferation of professional geographers and geography programs resulted in the development of a whole series of increasingly specialized disciplinary subdivisions.

Geography and Human Geography

Geography’s specialized subfields are not divisive but are interrelated. Geography in all its subdivisions is characterized by three dominating interests. The first is in the areal variation of physical and human phenomena on the surface of the earth. Geography examines relationships between human societies and the natural environments that they occupy and modify. The second is a focus on the spa-

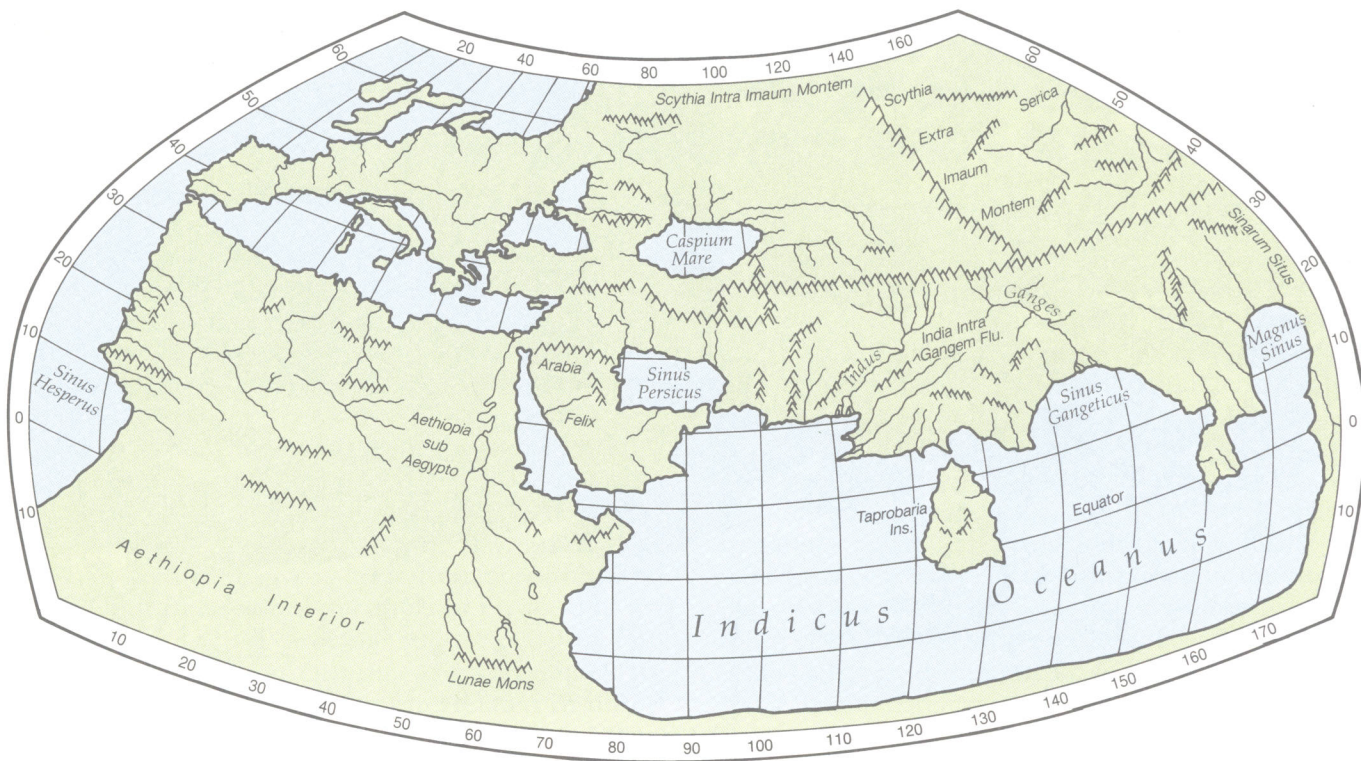


FIGURE 1.2 World map of the 2nd century A.D. Roman geographer-astronomer Ptolemy. Ptolemy (Claudius Ptolemaeus) adopted a previously developed map grid of latitude and longitude based on the division of the circle into 360°, permitting a precise mathematical location for every recorded place. Unfortunately, errors of assumption and measurement rendered both the map and its accompanying six-volume gazetteer inaccurate. Many variants of Ptolemy's map were published in the 15th and 16th centuries. The version shown here summarizes the extent and content of the original.

tial systems¹ that link physical phenomena and human activities in one area of the earth with other areas. Together, these interests lead to a third enduring theme, that of regional analysis: geography studies human-environment- or ecological-relationships, and the systems of spatial interaction are studied in specific areal settings. This areal orientation pursued by some geographers is called *regional geography*.

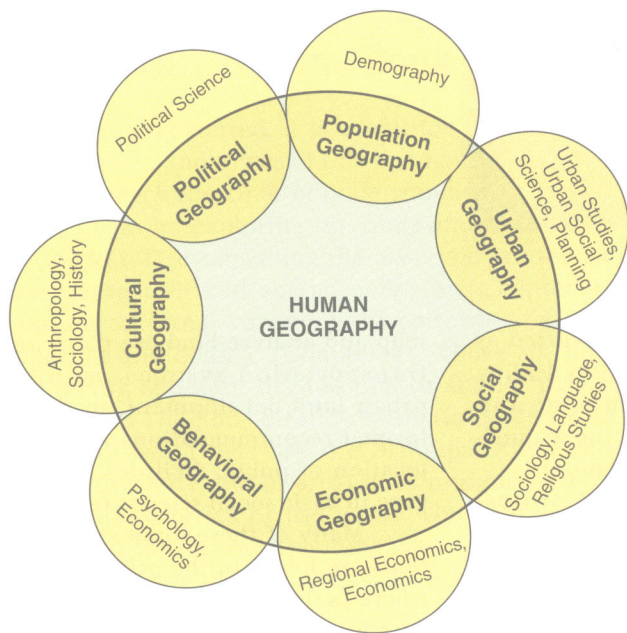
Other geographers choose to identify particular classes of things, rather than segments of the earth's surface, for specialized study. These *systematic geographers* may focus their attention on one or a few related aspects of the physical environment or of human populations and societies. In each case, the topic selected for study is examined in its interrelationships with other spatial systems and areal patterns. *Physical geography* directs its attention to the natural environmental side of the human-environment

structure. Its concerns are with landforms and their distribution, with atmospheric conditions and climatic patterns, with soils or vegetation associations, and the like. The other systematic branch of geography—and the subject of this book—is *human geography*.

Human Geography

Human geography deals with the world as it is and with the world as it might be made to be. Its emphasis is on people: where they are, what they are like, how they interact over space, and what kinds of landscapes of human use they erect upon the natural landscapes they occupy. It encompasses all those interests and topics of geography that are not directly concerned with the physical environment or, like cartography, are technical in orientation. Its content provides integration for all of the social sciences, for it gives to those sciences the necessary spatial and systems viewpoint that they otherwise lack. At the same time, human geography draws upon other social sciences in the analyses identified with its subfields, such as *behavioral, political, social, or economic geography* (Figure 1.3).

¹ A "system" is simply a group of elements organized in a way that every element is to some degree directly or indirectly interdependent with every other element. For geographers, the systems of interest are those that distinguish or characterize different regions or areas of the earth.



Human geography admirably serves the objectives of a liberal education. It helps us to understand the world we occupy and to appreciate the circumstances affecting peoples and countries other than our own. It clarifies the contrasts in societies and cultures and in the human landscapes they have created in different regions of the earth. Its models and explanations of how things are interrelated in earth space give us a clearer understanding of the economic, social, and political systems within which we live and operate. Its analyses of those spatial systems make us more aware of the realities and the prospects of our own society in an increasingly troubled and competitive world. Our study of human geography, therefore, can help make us better-informed citizens, more able to understand the important issues facing our communities and our countries and better prepared to contribute to their solutions. Importantly, it can also help open the way to wonderfully rewarding and diversified careers as professional geographers (see "Working in Geography").

FIGURE 1.3 Some of the subdivisions of human geography and the allied fields to which they are related. Geography, "the mother of sciences," initiated in antiquity the lines of inquiry that later led to the development of these and other separate disciplines. That geography retains its ties to them and shares their insights and data reinforces its role as an essential integrator of all data, concepts, and models that have integrative regional and spatial implications.

ROGER'S BOOK

The Arab geographer Idrisi, or Edrisi (c. A.D. 1099–1154), a descendant of the Prophet Mohammed, was directed by Roger II, the Christian King of Sicily in whose court he served, to collect all known geographical information and assemble it in a truly accurate representation of the world. An academy of geographers and scholars was gathered to assist Idrisi in the project. Books and maps of classical and Islamic origins were consulted, mariners and travelers interviewed, and scientific expeditions dispatched to foreign lands to observe and record. Data collection took 15 years before the final world map was fabricated on a silver disc some 200 centimeters (80 inches) in diameter and

weighing over 135 kilograms (300 pounds). Lost to looters in 1160, the map is survived by "Roger's Book," containing the information amassed by Idrisi's academy and including a world map, 71 part maps, and 70 sectional itinerary maps.

Idrisi's "inhabited earth" is divided into the seven "climates" of Greek geographers, beginning at the equator and stretching northward to the limit at which, it was supposed, the earth was too cold to be inhabited. Each climate was then subdivided by perpendicular lines into 11 equal parts beginning with the west coast of Africa on the west and ending with the east coast of Asia. Each of the resulting 77 square compartments was then discussed in sequence in "Roger's Book."

Though Idrisi worked in one of the most prestigious courts of Europe, there is little evidence that his work had any impact on European geographic thought. He was strongly influenced by Ptolemy's work and misconceptions and shared the then common Muslim fear of the unknown western ocean. Yet Idrisi's clear understanding of such scientific truths as the roundness of the earth, his grasp of the scholarly writings of his Greek and Muslim predecessors, and the faithful recording of information on little-known portions of Europe, the Near East, and North Africa set his work far above the mediocre standards of contemporary Christian geography.

FOR YOUR CONSIDERATION

WORKING IN GEOGRAPHY

Recognizing geography's role in a rounded liberal education leads logically to a further interest: Can it, as well, be a pathway to employment for those who wish to specialize in the discipline? The answer is "yes," in a number of various types of jobs. One broad cluster is concerned with supporting the field itself, through teaching and research. Teaching opportunities exist at all levels, from elementary to university post-graduate. Teachers with some training in geography are increasingly in demand at the elementary and high school level in the United States, reflecting geography's inclusion as a core subject in the federally adopted *Goals 2000: Educate America Act* (Public Law 103-227) and the national determination to create a geographically literate society. At the college level, specialized teaching and research in all branches of geography have long been established, and geographically trained scholars are prominently associated with urban, community, and environmental studies, regional science, locational economics, and other interdisciplinary programs.

Because of the breadth and diversity of this field, training in geography involves the acquisition of skills and approaches applicable to a wide variety of jobs outside the academic world. Modern geography is both a physical and social science and fosters a wealth of technical skills. The employment possibilities

it presents are as many and varied as are the agencies and enterprises dealing with the natural environment and human activities and with the acquisition and analysis of spatial data.

About a quarter of all professional geographers work in government, either at the state or local level or in a variety of federal agencies and international organizations. Although many positions do not carry a geography title, physical geographers serve as water and natural resource analysts, weather and climate experts, soil scientists, and the like. An area of recent high demand is for environmental managers and technicians. Geographers who have specialized in environmental studies find jobs in both public and private agencies. Their work may include assessing the environmental impact of proposed development projects on such things as air and water quality and endangered species; and also includes preparing the environmental impact statements required before construction can begin.

Human geographers work in many different roles in the public sector. Jobs include data acquisition and analysis in health care, transportation, population studies, economic development, and international economics. Many geography graduates find positions as planners in local and state governmental agencies concerned with housing and community development, park and recreation planning, and urban and regional planning. They

map and analyze land use plans and transportation systems, monitor urban land development, make informed recommendations about the location of public facilities, and engage in basic social science research.

Many of these same specializations are found in the private sector, where perhaps another quarter of geographers work. Geographic training is ideal for such tasks as business planning and market analysis; factory, store, and shopping center site selection; community and economic development programs for banks, public utilities, and railroads; and similar applications. Publishers of maps, atlases, news and travel magazines, and the like, employ geographers as writers, editors, and mapmakers.

The combination of traditional, broad-based liberal arts perspective with the technical skills required in geographic research and analysis gives geography graduates a competitive edge in the current labor market. These field-based skills include familiarity with geographic information systems (GIS), cartography and computer mapping, remote sensing and photogrammetry, and competence in data analysis and problem solving. In particular, students with expertise in GIS, who are knowledgeable about data sources, hardware, and software, are finding they have ready access to employment opportunities.