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Seventh Edition

Physical Geography

A Landscape Appreciation

*Tom L. McKnight
Darrel Hess*

Physical Geography

A Landscape Appreciation

Seventh Edition

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Preface

The United States of America possesses many singular characteristics, some good, some not so good. In the latter category is the unfortunate distinction that our citizens are probably the world's most geographically illiterate people. Despite our highly literate and educated society, on average we know relatively little about the geography of our own country, not to mention that of the rest of the world. In almost all other countries, geography is a basic field of study in both primary and secondary schools, as well as being a firmly established university subject. Thus, over much of the world, schoolchildren are exposed to geographic training for most of their school years. This statement applies not only to industrialized countries such as England, Japan, and New Zealand, but also to developing lands such as India, Tanzania, and Ecuador. It has not been so in the United States, where the word geography rarely occurred in the curriculum.

Fortunately, this situation is now in the process of dramatic change. During the late 1980s, our collective geographical ignorance became a matter of widespread discussion and concern, and some significant actions were taken to introduce or upgrade geographic education at various levels. The national education objectives of Goals 2000 stipulated geography as one of the eight subjects that should constitute basic education in primary and secondary schools throughout the nation and for which each state will be expected to develop functional standards. In the last few years, then, enthusiasm for geographic training has swelled, although there is much lost ground to recover. Indeed, most American students continue to be surprised when they discover that geography courses are offered in college and universities. Geography is nevertheless a well-established discipline in most of our institutions of higher learning, and its significance is growing as more geographic content is introduced into the kindergarten through 12th-grade (K–12) curriculum. Geographic information systems (GIS) and the Global Positioning System (GPS) have brought the concept of geography into business and industry, career options, and concern about the environment. This growth in geographical awareness is a sign that Americans are regaining lost ground in their understanding of the world's geography.

The authors of this volume believe that a useful definition of geography is "landscape appreciation" and have prepared the book with that theme in mind. "Landscape" is considered to include everything one

senses by sight, sound, and smell when looking out of a window. "Appreciation" in this context means understanding: Any proper exposition of geography should serve to heighten one's understanding of all that is seen, heard, and smelled through actual experience at a nearby window or vicarious experience of a window on the other side of the world. It is the purpose of this book to make the landscapes of the world more understandable to the reader, at least at an introductory level.

What do you see when you cross the Mojave Desert from Los Angeles to Las Vegas? Three hundred miles of "Not Much"? A geographer sees 300 miles of "Quite A Lot". It is hoped that this book will help the reader to expand his or her capacity for landscape appreciation from the former to the latter.

Features of the New Edition

New to this revision is a revamped cartographic and illustration program, including the following:

- More than 50 new maps, with shaded relief where appropriate
- New climographs throughout
- More than 70 new photographs
- Nearly all photos paired with locator maps to heighten basic geographic literacy

New material has been added to numerous topics, including the following:

- Geographic information systems in Chapter 2
- The ozone layer in Chapter 3
- Global warming in Chapter 4
- El Niño and La Niña in Chapter 7
- Pedoturbation in Chapter 12
- Gelisols in Chapter 12
- Plate tectonics in Chapter 14
- Earthquakes in Chapter 14
- Soil creep in Chapter 15

New focus boxes include the following:

- GOES weather satellites in Chapter 7
- Lightning in Chapter 7
- Volcanic hazards in Chapter 14

Supplements

The authors and publisher are pleased to have worked with a number of talented people to produce an excellent supplements package for this text. 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 Website: Physical Geography: A Landscape Appreciation* website revised by Daniel L. Roy gives students the opportunity to use the Internet to further explore topics presented in the book. The site contains numerous review exercises (from which students get immediate feedback), exercises to expand students' understanding of geography, resources for further exploration, and sources of up-to-the-minute information. The website provides an excellent platform from which to start using the Internet for the study of physical geography. You may visit the site at <http://www.prenhall.com/mcknight>.
- *Virtual Field Trips, version 2.0*. This package of virtual field trips allows students to "visit" some of the most geographically interesting places on Earth. The revised CD-ROM has been upgraded to include field trips and interactive exercises for each chapter in the book and to improve navigation and ease of use. A copy of the Virtual Field Trip 2.0 CD-ROM is included free of charge with every copy of this book. Appendix VIII details these field trips in the text.
- *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 *Physical Geography: A Landscape Appreciation*, 7e.
- *Study Guide* (0-13-041320-8): Written by experienced educator and coauthor Darrel Hess of City College of San Francisco, the study guide has helped thousands of students master physical geography. It also helps students identify the important points from the text and then provides them with review exercises, study questions, self-check exercises, and a vocabulary review. The study guide is available at a discount when packaged with the text. Contact your local Prentice Hall representative for details.

- *Laboratory Manual* (0-13-041337-2): Written by Darrel Hess of City College of San Francisco, The laboratory manual offers a comprehensive set of lab exercises to accompany any physical geography class. *Laboratory Manual* is available at a discount when packaged with the text. Contact your local Prentice Hall representative for details.

For the Professor

- *Transparencies* (0-13-041329-1) and *Slides* (0-13-041327-5): More than 150 full-color illustrations from the text are available free of charge to qualified adopters of *Physical Geography: A Landscape Appreciation*, 7e. To accommodate instructors preferences, these images are available both on transparency acetates and 35-millimeter slides.
- *Digital Files* (0-13-041828-5): 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 websites 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*. The 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* (0-13-041336-4): Written by Sherry Morea Oakes of Metropolitan State College, the instructor's manual is intended as a resource for both new and experienced instructors. The volume 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* (0-13-041338-0): The test item file, written by Stephen Stadler of Oklahoma State University, provides instructors with a wide variety of test questions.
- *Prentice Hall Custom Test*: Available on disks formatted for both Macintosh (0-13-041339-9) and IBM (0-13-041326-7) computers and based on the powerful testing technology developed by Engineering Software Associates, Inc. (ESA), the Prentice Hall Custom Test allows instructors to create and tailor exams to their own needs. Exams can

also be administered on-line, and data can then be automatically transferred for evaluation. A comprehensive desk reference guide is included, along with on-line assistance.

- *Course Management:* Prentice Hall is proud to partner with many of the leading course management system providers on the market today. These partnerships enable us to combine our market-leading on-line content with the powerful course management tools Blackboard and WebCT and with 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.

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The production team at Prentice Hall has been a pleasure to work with and has exhibited unfailing professionalism. Our thanks to photo researcher Kathy Ringrose who located quality photographs for the book, to cartographer Brian Goudreau for his fine work on the maps and diagrams, and especially to Howard and Jo Aksen of Aksen Associates, quintessential professionals who brought together a wide variety of diverse elements and assembled them into the book you see here.

Tom L. McKnight

Darrel Hess

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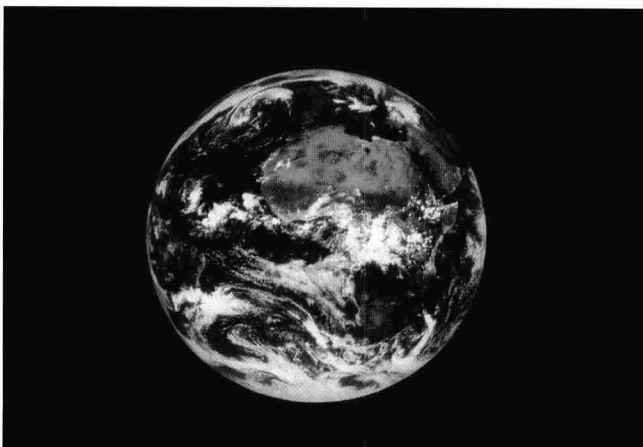
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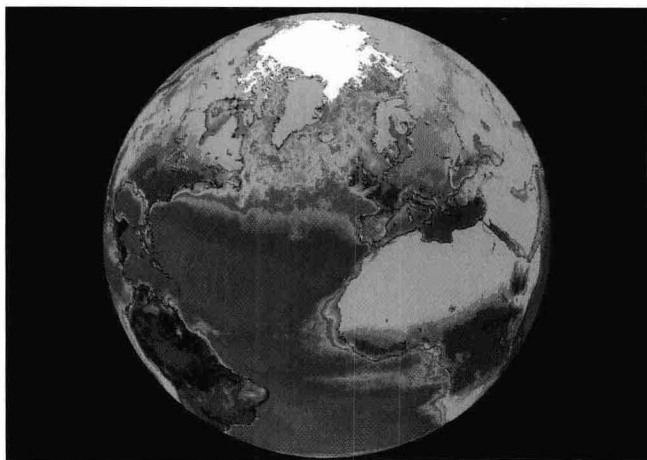
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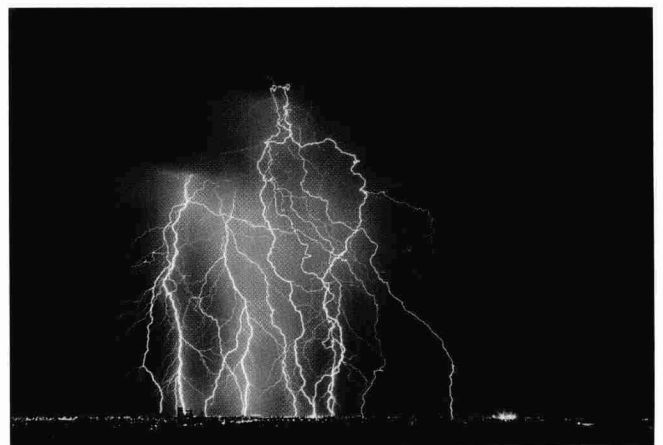
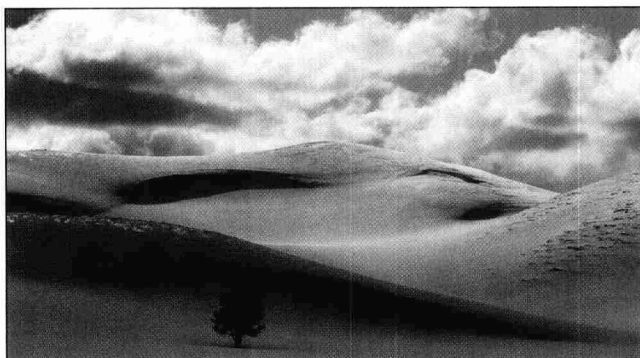
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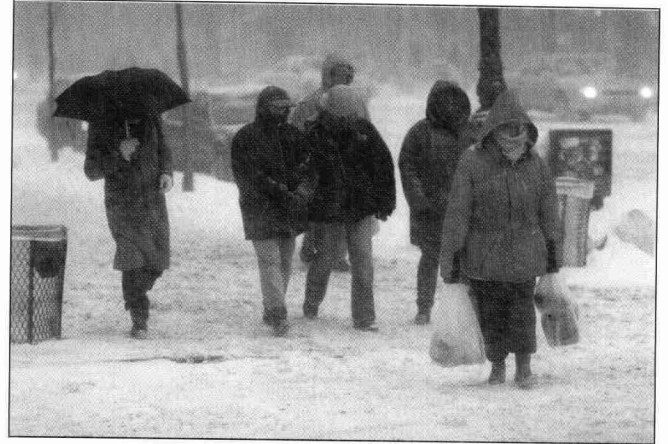
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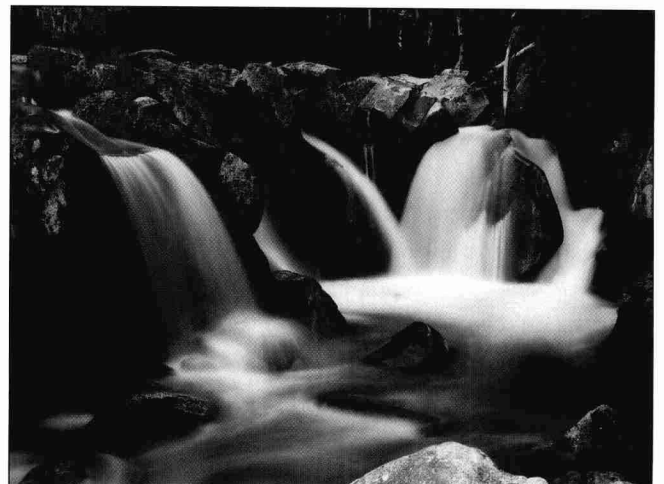
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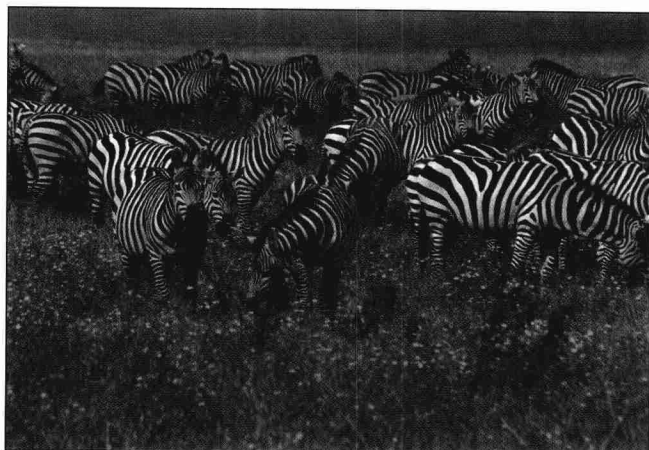
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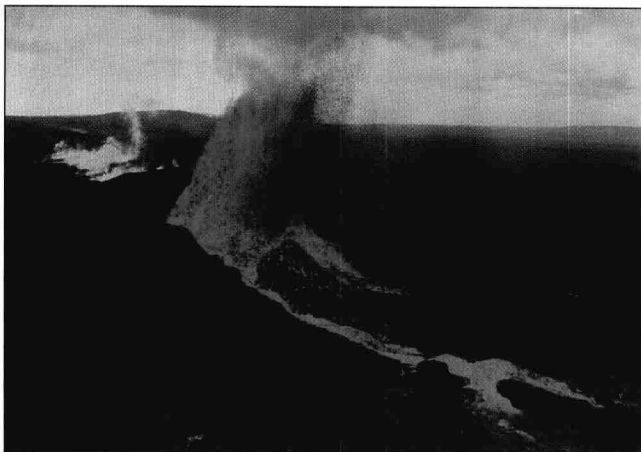
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