

Journal of Sedimentary Research

An International Journal of SEPM

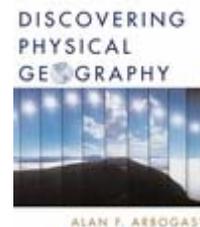
Colin P. North and Kitty L. Milliken, Editors

A.J. (Tom) van Loon, Associate Editor for Book Reviews

Review accepted 23 January 2008



Discovering Physical Geography, by Alan F. Arbogast, 2007. John Wiley & Sons, 111 River Street, Hoboken, NJ 07030-5774, USA. Paperback, 656 pages. Price EUR 54.90; USD 115.95; SFR 88.00. ISBN: 978-0-471-43860-1.



Physical geography, and geography in general, is an oft overlooked and underappreciated discipline and college course in the US. Dobson (2007) decries the practice of American colleges covertly cloaking physical geography under the auspices of such ambiguous courses and departments as “Earth Systems Science” or “Environmental Science.” The title of Alan Arbogast’s new book “Discovering Physical Geography” runs counter to that trend.

The book is a well-structured text and provides a solid coverage of this very broad topic. If you have ever reviewed physical-geography texts while considering them for adoption, there are two approaches to structuring the material. Physical-geography texts typically begin with basics of geography—the geographic continuum, the Earth’s physical framework (the four spheres or systems), as well as the tools (maps) and analytical practices (GIS) of geographers. Arbogast keeps with this model and has two chapters dedicated to these topics.

These introductory chapters provide the necessary foundation and segue for the remaining chapters and topics. As with most texts, the following chapters provide an overview of the Earth’s energy balance, atmospheric and climatic systems. The approach and structure of the material implemented by Arbogast is similar to those found in other texts. Each chapter has a preview of the learning objectives found in that section. The text employs colorful graphics and photos to illustrate key topics, reinforcing them with concept checks and checklists inserted throughout the chapters. Each chapter also has a summary of key concepts—this follows the simple but effective model of “Inform them what is going to be presented, cover it, and then remind them what was presented.” Missing from these chapters are additional web and text sources that students could look to for more depth of coverage.

It is after the atmosphere and climate sections of physical-geography courses and texts that paths tend to vary. Some follow a path, such as presented by Christopherson’s (2005, 2006) Geosystems pair, which approaches the terrestrial systems from the bottom up, as it were, covering the lithosphere, geomorphic systems, with soils and the biosphere covered last. The other path, which is taken by Arbogast, is to cover soils and the biosphere preceding the lithosphere and geomorphic systems. Personally, I prefer the former path, as I look at the other three systems—atmosphere, hydrosphere, and lithosphere—as building blocks for the biosphere. That said, this text is modular enough that with very little difficulty an adopter could cover the chapters in an order different than arranged in the text.

Overall, the book is a very nice addition to the family of physical-geography texts available for adoption. It should be cautioned, however, that introductory courses should not be designed solely around a single text, but that any of the texts on this topic will have been thoroughly reviewed to provide a solid basis for structuring learning in a physical-geography class setting. Any reasonable physical-geography lecturer will ultimately utilize any number of outside sources for putting together a course—there is nothing in this text that would preclude it from receiving full consideration for adoption.

What really sets this text apart, and what other authors strive for, is the development of pedagogical aids for students. Arbogast's use of graphics along with definitions is very appropriate for today's graphic rich environment and recognizes that most students today respond well to colorful cartoons and photos. And, since we live in a Muggle world with static photos, there is a companion website with animated graphics to further reinforce concepts. I really appreciate the author's use of locator maps tied to photos of landscapes that are alien to most American students; it's only unfortunate that the text only maps out photos from outside the US. I would suggest that locator maps be used with most—if not all—example landscape photos, foreign or domestic, as I don't think we should underestimate the level of geographic illiteracy in this country. Any pedagogical device to help with geographers' attempts to overcome our country's geography deficit disorder should be applied liberally!

References

- Christopherson, R., 2005. *Geosystems: An Introduction to Physical Geography*. Prentice Hall, 752 pp.
- Christopherson, R., 2006. *Elemental Geosystems*. Prentice Hall, 620 pp.
- Dobson, J.E., 2007. Bring back geography! *ArcNews* 29 (1), 1-2.

David E. Wilkins
Department of Geosciences
Boise State University
1910 Univ. Drive
Boise, Idaho 83725-1535
USA
e-mail: dwilkins@boisestate.edu



SEPM - The Society for Sedimentary Geology

Alan F. Arbogast of Michigan State University, MI (MSU) | Read 41 publications | Contact Alan F. Arbogast. Introduction. Skills and Expertise. Physical Geography. Geomorphological Mapping. Fluvial Geomorphology. Alan F. Arbogast. The Nodaway dune field is perched along Lake Superior in Upper Michigan. This study uses absolute and relative-age dating methods to test the hypothesis that the dune field finally stabilized after the Nipissing high stand, about 4,000 years ago. Arbogast, Alan F. *Discovering Physical Geography*. Hoboken, NJ: John Wiley & Sons, 2007. Print. "Examples of Physical Weathering." YourDictionary. Web. 20 Apr. 2015. Hardwood, Richard. "Physical Geography: Physical Weathering." 1 Aug. 2011. Web. 18 Apr. 2015. the geomorphology big picture. Table 1: Weathering Types Physical (Mechanical) Chemical 1. Frost Wedging 2. Salt-Crystal Growth 3. Exfoliation 4. Root Wedging 5. Temperature Fluctuations 1. Hydrolysis 2. Oxidation 3. Carbonation Table 2: Erosional Landforms Types of Erosion Agents Masswasting (Gravity) Fluvial (Runn Alan F. Arbogast is Professor and Chair of the Department of Geography at Michigan State University. Dr. Arbogast is a physical geographer specializing on Late-Quaternary landscape evolution of eolian and fluvial environments. He obtained his PhD from the University of Kansas in 1995 and began working at MSU the same year. Although Alan has worked extensively in the Great Plains, most of his work has focused on the Great Lake region. Research Interests: He is best known for his research on the geomorphic history of coastal sand dunes along Lake Michigan.