

Third Edition

Geology and Landscape Evolution

General Principles Applied to the United States

Joseph A. DiPietro

Geology and Landscape Evolution: General Principles Applied to the United States, Third Edition, is an accessible interdisciplinary text that balances theory and application with an emphasis on the physical geography, geology, tectonics, climatology, and geomorphology of the United States. It is an ideal tool for geoscientists who wish to understand the country's geological and landscape evolution and for those who simply wish to explore the vast diversity of terrain across the United States. With specific and exhaustive reference to examples from the United States, *Geology and Landscape Evolution: General Principles Applied to the United States* concentrates specifically on the origin of landscape and how geology, tectonics, and climate combine to shape landscape. Rather than a description of events, this book applies geologic concepts and reasoning to the solving of geologic problems.

The third edition is fully updated with four parts and seven new chapters. Part I describes the logic, rationale, and tools required to understand how to interpret landscape. Part II describes the regional landscape and geology of the United States including the distribution of rocks, tectonic features, active faults, and areas of uplift-subsidence. Part III is a detailed account of the physiographic character and evolution of specific areas of the United States such as the Blue Ridge and Rocky Mountains. Part IV explores concepts required to understand geologic history, and applies those concepts to the origin of convergent mountain systems with a special reference to the Appalachian Mountains. This book is a valuable resource for those who wish to explore and understand the great American countryside.

Key features:

- Presents the complexities of physical geography, geology, tectonics, and geomorphology of the United States through an interdisciplinary, highly accessible approach
- Offers hundreds of figures, maps, and photographs that capture the systematic interaction of land, rock, rivers, glaciers, global wind patterns, and climate, including Google Earth images
- Provides a thorough assessment of the logic, rationale, and tools required to understand how to interpret landscape and the geological history of Earth
- Features exercises that conclude each chapter, aiding in the retention of key concepts
- This edition is a complete reorganization of material into four parts with seven additional chapters and with major updates to chapters throughout

About the Author

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Joseph A. DiPietro is a Professor of Geology at the University of Southern Indiana. His research interests are in the fields of structural geology, tectonics, and metamorphism. He has been on the faculty at the University of Southern Indiana since 1991 where he teaches Physical Geology, Landscapes and Geology of North America, Mineralogy, Structural Geology, and Tectonics. Most of his research has been on the tectonics of the Pakistan Himalaya where he mapped along the suture zone that separates India from Asia. He has also worked for the New York State Geological Survey mapping in the Adirondack Mountains, for the Idaho Geological Survey mapping in the Clearwater Mountains, and has conducted mapping and research in the Green Mountains of Vermont.



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