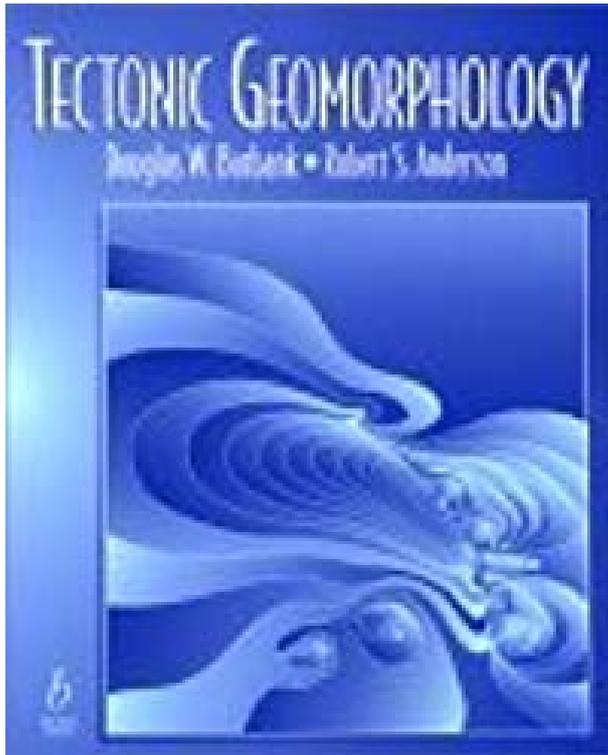


# Tectonic Geomorphology



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Tectonic geomorphology is the study of the interplay between tectonic and surface processes that shape the landscape in regions of active deformation. Recent advances in the quantification of rates and physical basis of tectonic and surface processes have rejuvenated the field of tectonic geomorphology. Modern tectonic geomorphology is an exciting and highly integrative field which utilizes techniques and data derived from studies of geomorphology, seismology, geochronology, structure, geodesy, and Quaternary climate change. While emphasizing new insights from the last decade of research, *Tectonic Geomorphology* reviews the fundamentals of the subject which include the nature of faulting and folding, the creation and use of geomorphic markers for tracing deformation, chronological techniques which date deformation, geodetic techniques for defining recent deformation, and paleoseismologic approaches to calibrate past deformation. The overall focus of this book is on new interpretations of landform evolution and insights on the interplay between surface processes and tectonics that emerge from integrative studies. The authors have developed an up-to-date interpretation of landscapes in tectonically active environments for upper-level undergraduate and graduate earth science students and practicing geologists. For an instructor's image bank, please visit: <http://www.geol.ucsb.edu/faculty/burbank>

First text to take a broad interdisciplinary approach: integrated geomorphology, geophysics, and paleoclimatology. Includes the latest technological advances used in dating: Uranium series and dating and observation. Emphasizes the role of surface processes. Focuses on landscapes at different time scales. Provides strong coverage on numerical modeling of tectonically active landscapes. Presents the recent approaches to calibrating rates of uplift and erosion. Stresses the tectonics of active plate margins in a detailed

yet succinct way. Contains "Chapter introductions," "Chapter summaries," and "References" that reinforce principles and theory as well as provide additional background information.