



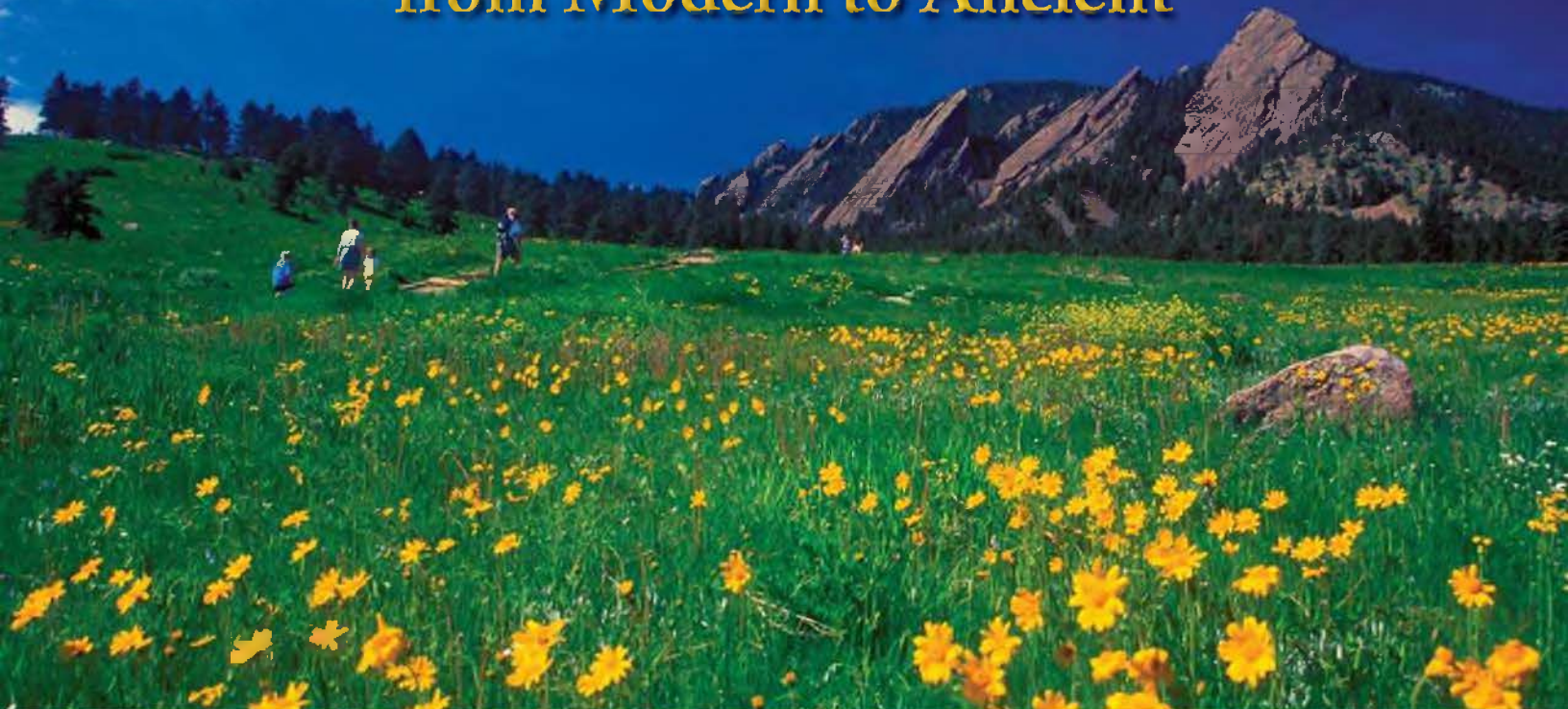
THE  
GEOLOGICAL  
SOCIETY  
OF AMERICA®

Field Guide 18



*Through the Generations:*

**Geologic and Anthropogenic  
Field Excursions in the Rocky Mountains  
from Modern to Ancient**



edited by Lisa A. Morgan and Steven L. Quane

# *Through the Generations: Geologic and Anthropogenic Field Excursions in the Rocky Mountains from Modern to Ancient*

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GEOLOGICAL  
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OF AMERICA®

## Field Guide 18

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Cover, top: Balcony House, Mesa Verde National Park. Photograph shows cliff dwelling constructed on planar shale layer at alcove base. U.S. Geological Survey archive photograph by O.B. Hopkins (1914). Bottom: The Flatirons, Boulder, Colorado. Image courtesy of City of Boulder Open Space & Mountain Parks. Photo by Ann G. Duncan. Back: Image by Steven L. Quane.

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## *Preface*

Spectacular rock outcroppings and dramatic Rocky Mountain landscapes have brought countless generations of pioneers, miners, adventurers, vacationers and, of course, geologists to the western United States. Over the past 200 years, interpretations of Rocky Mountain geology have provided meaningful insights to the dynamic forces that shape this important region. Significant observations can and have been gathered at a stunning range of temporal and spatial scales and continue to build on the established geologic framework. This volume, compiled for the 2010 GSA Annual Meeting in Denver, Colorado, includes 9 peer-reviewed field guides and associated papers that constitute a considerable synthesis of Rocky Mountain geologic knowledge.

The scope of subject matter discussed in this volume ranges from continental-mountain building events to microscopic observations to parts per billion trace element concentrations. The volume pertains to geologic history from the Precambrian to modern issues associated with climate change and energy, ground-water contamination, geologic hazards, and landscape evolution. Write-ups for many of the trips described in the volume provide innovative interpretations of well-known geologic ideas and environs, including Laramide deformation, the Colorado Mineral Belt, the Lewis and Clark Line, the Chalk Cliffs, and the Garden of the Gods.

The contributions in this volume would not have been possible without the tireless efforts of the authors, reviewers, and GSA publications staff. This volume is indeed a lasting collection of road logs and descriptions of key geologic relations. Perhaps more importantly, we hope it serves as a template for discovery of fresh ideas and a forum for debate among several generations of geologists, young and old.

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