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**Earth Sciences : Historical Geology**

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# Geology and Tectonics of Northwestern South America

**The Pacific-Caribbean-Andean Junction**

- Provides the first comprehensive overview of the geology of the NW corner of South America, i.e. the Northern Andean Block
- Depicts key Proterozoic – Phanerozoic tectonic events documented by field stratigraphic and structural surveys, as well as geophysical studies
- Presents for the first time a complete picture of the magmatic (litho-geochemical, radiogenic isotope, U-Pb radiometric age) evolution of the region, spanning the entire Phanerozoic.
- Includes complete supporting age, litho-geochemical and isotope data (including XYZ sample coordinates), and new structural field transects, in composite digital appendices, within spreadsheets and detailed geological cross sections
- Includes a detailed tectono-metallog

This book provides a comprehensive overview of the geological evolution of the Northern Andes and contiguous shield areas, with a focus upon Colombia. Updated geological interpretations are supported by modern litho-geochemical, seismic, gravity and magnetic data and radiogenic isotope and radiometric age determinations. The composite data permits a detailed interpretation of the tectono-magmatic history of the Northern Andean Block, including the Andes of Colombia, northern Ecuador, western Venezuela and eastern Panamá. Tectonic reconstructions based upon characterization of more than thirty litho-tectonic and morpho-structural units, terrane assemblages and tectonic realms, and their bounding suture and fault systems, highlight the intimate and complementary Mesozoic-Cenozoic history of the Northern Andean Block and the Pacific and Caribbean Plates. The complex nature of Northern Andean assembly contrasts with "classical" Central Andean "Cordilleran-type" orogenic models. Differences render the application of typical Cordilleran-type models inappropriate for the Colombian Andes.

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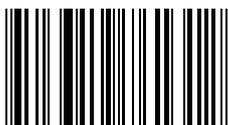
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