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Nota di contenuto	Part I.Regional Overview -- Chapter 1. Phanerozoic orogens of NW Southamerica: Cordilleran Type Orogens, Taphrogenic tectonics and the Orogenic Float -- Chapter 2. Phanerozoic orogens of NW Southamerica: Cordilleran Type Orogens, Taphrogenic tectonics and the Orogenic Float -- Part II.The Guiana Shield and the Andean Belt -- Chapter 3. The Proterozoic basement of the Western Guiana shield and the Northern Andes -- Part III.Early Paleozoic Tectono-Sedimentary History -- Chapter 4.OrdoVICIAN orogeny and jurassic low-lying orogeny in the Santander Massif, Northern Andes (Colombia) -- Part 4. Major Tectono-Magmatic Events -- Chapter 5.Phanerozoic Granitoid magmatism and tectono-magmatic evolution in the Colombian Andes -- Chapter 6.Phanerozoic metallogeny in the Colombian Andes: a tectono-magmatic framework -- Chapter 7.Paleogene Magmatism of the Maracaibo block and its tectonic significance -- Chapter 8.Late cenozoic to modern-day volcanism in the Northern Andes: A geochronological, petro-graphical and geochemical review -- Part 5. The Northern Andean Orogen -- Part 5.The Northern Andean Orogen -- Chapter 9.Diagnostic structural features of NW South America: Structural Cross-Sections Based Upon Detailed Field Transects --

Chapter 10. Cretaceous stratigraphy and paleo-facies maps of Northwestern South America -- Chapter 11. Morphotectonics and orogenic development of the Northern Andes of Colombia: A low-temperature thermochronology perspective -- Chapter 12. The Romeral shear zone -- Part 6. Continental Uplift-Drift -- Chapter 13. Thermochronology, uplift-exhumation of the Merida Andes, Santander Massif - Perija and Sierra Nevada De Santa Marta. A Regional Overview -- Part 7. Active Oceanic - Continental Collision -- Chapter 14. The geology of the Panama-Choco Arc -- Part 8. Holocene - Anthropocene -- Chapter 15. Sediment transfers from the Andes of Colombia during the Anthropocene -- Chapter 16. The historical, geomorphological evolution of the Colombian littoral zones (XVIII century to present).

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Sommario/riassunto

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. The importance of underlying Proterozoic through mid-Mesozoic elements, in the development of Meso-Cenozoic Northern Andean orogeny-phase tectonic configurations is analyzed in the light of spatial-temporal studies and reconstructions related to basin formation, sedimentation, deformation, uplift mechanisms, structural style and magmatic evolution. The pre-Andean architecture of north western South America has played a pre-determinative role in the development of the Northern Andean orogenic system. 16 contributions analyze key stratigraphic, structural, metamorphic, magmatic and tectonic questions, and provide solutions as far as the most recent published field-based studies permit. The volume provides geological interpretations and tectonic models which contrast with repetitive theoretical proposals frequently found in the available literature.

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