

Ophiolites In Earth History

"This volume honors Eldridge Moores, one of the most accomplished geologists of his generation. The volume starts with a summary of Moores' achievements, along with personal dedications and memories from people who knew him. Leading off the volume's 12 chapters of original scientific contributions is Moores' last published paper that presents an example of the Historical Contingency concept, which suggested that earlier subduction history may result in supra-subduction zone geochemical signatures for some magmas formed in non-subduction environments. Other chapters highlight the societal significance of geology, the petrogenesis of ophiolites, subduction zone processes, orogenic belt evolution, and other topics, covering the globe and intersecting with Moores' interests and influences"--
Explores all aspects of LIPs as key processes in shaping our planet, for researchers, graduate students and mining industry professionals.

This book gathers peer-reviewed research articles on recent advances concerning the geology, geophysics, tectonics, geochronology, sedimentology, igneous petrology, paleo-climate and paleo-oceanography of the Andaman and Nicobar Islands of India and the adjoining ocean basins. Accordingly, it contributes significantly to readers' understanding of the origin and evolution of the Andaman subduction zone and its various components. It also provides much-needed information on the evolution of the South Asian monsoon system since the Eocene and its link to Himalayan weathering and

erosion.

"Inspired by a GSA Penrose Conference held in Lander, Wyoming, June 14-18, 2006, this volume discusses the beginning and evolution of plate tectonics on Earth, and gives readers an introduction to some of the uncertainties and controversies related to the evolution of the planet. In the first three sections of the book, which cover isotopic, geochemical, metamorphic, mineralization, and mantle geodynamic constraints, a variety of papers address the question of when "modern-style" plate tectonics began on planet Earth. The next set of papers focuses on the geodynamic or geophysical constraints for the beginning of plate tectonics. The volume's final section synthesizes a broad range of evidence, from planetary analogues and geodynamic modeling, to Earth's preserved geologic record. This work provides an excellent graduate level text summarizing the current state of knowledge and will be of interest to a wide range of earth and planetary scientists."--Publisher's website.

Ophiolites in Earth History
Geological Society of London
Precambrian Ophiolites and Related Rocks
Elsevier

"Exposed crustal cross sections provide a unique direct view of continental crust, and are a major source of insights into variations in lithologic and geochemical composition, structural style, metamorphism, plutonism, and rheology with progressive depth through the crust. This volume provides a synthesis of crustal cross sections with a special emphasis on Phanerozoic sections from the western North American Cordillera,

supplemented by articles on lower- and mid-crustal sections through Proterozoic crust in North America and Australia, and the classic crustal section of Fiordland, New Zealand. Many of the papers describe multidisciplinary research on crustal sections and include data from various combinations of structural analysis, geochemistry, geothermobarometry, geochronology, geophysics, and other disciplines. The volume also discusses common problems for the interpretation of crustal cross sections, including how sections that expose deep-crustal rocks are eventually exhumed, and leading to the conclusion that there is no simple 'standard model' for continental crust. This volume will be useful to those interested in structural geology, tectonics, geodynamics, regional geology, petrology, geochemistry/isotope geology, and geophysics."--pub. desc.

Wright (geology, U. of Georgia) and Shervais (geology, Utah State U.) edit selections from a symposium titled "Ophiolites, Batholiths, and Regional Geology: A Session in Honor of Cliff Hopson" held at the Cordilleran Section Meeting of The Geological Society of America in 2005. With contributions from geologists and earth scientists from throughout the United States, the title contains separate sections for papers on the topics of ophiolites, arcs, and batholiths. The publication is illustrated in both black-and-white and color, but contains no index.

The proceedings from the September 1998 conference in Marshall, California contain 39 papers on the following topics: ophiolites, ocean crust, and global tectonics; oceanic lower crust and upper mantle; structure and

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physical properties of upper oceanic crust; hydrothermal processes; Pacific Rim ophiolites; and, Ophiolites from Iapetus, Rheic-Pleionic, Neotethyan, and Indian Oceans. Contributors include scientists with backgrounds in structural geology, tectonics, geophysics, petrology, and geochemistry. Numerous black and white illustrations (and one in color) are included. Annotation copyrighted by Book News Inc., Portland, OR

Anatolia and the easternmost Mediterranean region, especially Turkey, Cyprus and northern Syria, represent an excellent natural laboratory for the study of fundamental geological processes (e.g. rifting, seafloor spreading, ophiolite genesis and emplacement, subduction, exhumation and collision). Their interaction has created an intriguing array of deep-sea basins, microcontinents and suture zones. The volume's 22 papers include a large amount of new field-based information (much of it multidisciplinary and the product of teamwork). After an overview, the volume is divided into four sections: Late Palaeozoic--Early Cenozoic of the Pontides (northern Turkey); Late Palaeozoic--Early Cenozoic of the Taurides--Anatolides (central and southern Turkey); Late Cretaceous--Pliocene sedimentary basins and structural development (central Anatolia to the Mediterranean); Late Miocene--Recent Neotectonics (southern Turkey, Cyprus and northern Syria). The volume will interest numerous academic researchers, those concerned with resources (e.g. hydrocarbons; mineral deposits) and also hazards (e.g. earthquakes), as well as advanced undergraduate and postgraduate students -- P. 4 of cover.

The monograph is concerned with results of studies of petrology of mafic-ultramafic massifs as part of the East Sakhalin ophiolite association. It generalizes and interprets a large body of data (mainly original data) on geology, petrography, petrochemistry, and geochemistry of rocks; mineralogy and geochemistry of rock-forming and accessory minerals; chromite and platinum contents, and isotopic age of zircons from rocks of the typical mafic-ultramafic massifs of the East Sakhalin ophiolite association: Berezovka, Shel'ting, Komsomol'sk, and South Schmidt. Gabbroids from the Berezovka massif contain ultramafic xenoliths. Ultramafic rocks are locally cut by gabbroid and pyroxenite veins. Three spatially close but genetically autonomous bodies are distinguished in the structure of the massifs under study: protrusion of upper-mantle restitic ultramafic rocks (harzburgites, lherzolites, and dunites); intrusion of orthomagmatic gabbroids (gabbronorites, gabbro, and norites) that cuts it; and contact-reaction zone, located along the boundaries between gabbroid intrusion and ultramafic protrusion, which consists of hybrid ultramafic rocks (wehrlites, websterites, clinopyroxenites, and their olivine- and plagioclase-containing varieties) and hybrid gabbroids (melano- and mesocratic olivine gabbronorites and gabbro as well as troctolites). The hybrid ultramafic rocks and gabbroids are the product of interaction between mafic melts and restitic ultramafic rocks. Taking into account the later formation of the gabbroid intrusions compared to the ultramafic protrusions, the massifs in question are determined as polygenic. The idea of their polygenic formation is supported by data on the isotopic

age of zircons from the Berezovka massif rocks. In this monograph the author develops his earlier proposed concept of polygenic formation of mafic–ultramafic massifs belonging to ophiolite associations. The book addresses a wide circle of petrologists and practicing geologists as well as senior-year students and postgraduates studying problems of mafic-ultramafic magmatism.

This richly illustrated book provides an overview of the Neoproterozoic Pan-African Belt of Egypt (PABE), which represents the northwestern continuation of the Arabian-Nubian Shield (ANS) and the East African Orogen (EAO). The first chapter offers an introduction to the Turin Papyrus Map and the historical background of the PABE, while the second addresses how the PABE is related to the ANS and EAO. Rock succession of the PABE is dealt with in Chapter 3, while Chapter 4 focuses on Sinai Metamorphic Core Complexes and implications on the break-up of Rodinia. Subsequent chapters discuss a broad range of topics, e.g. ophiolite-dominated suprastructural rocks; volcanosedimentary succession, Neoproterozoic volcanism and volcanic rocks in Egypt; enigmatic issues concerning granite, Dokhan and Hammamat sediments; the lithospheric mantle beneath the Northeast African continent and the mantle section of Neoproterozoic ophiolites from the PABE; sutures, megashears and petrogenetic evolution of the Neoproterozoic rocks of Egypt; and metallic and non-metallic mineral deposits in the PABE, which are covered in extensive detail. The book's closing chapters discuss the application of remote sensing techniques and

anisotropy of magnetic susceptibility (AMS) to decipher the tectonic evolution of the PABE, as well as the use of geophysical data to map structural features and hydrothermal alteration zones in the PABE.

Europe provides an outstanding field laboratory for studying lithospheric processes through time, for tracing the tectonic evolution of crust and mantle from the present far back into the early Precambrian. Two things are particularly striking: the importance of plate tectonics during the Phanerozoic and through the Proterozoic into the Archean, and the significance of tectonic inheritance, older structures and rheologies guiding the younger evolution. 'European Lithosphere Dynamics' grew out of a major European Science Foundation programme, EUROPROBE, with participation of many hundreds of Earth scientists from all over Europe. The main research activities focused on specific target areas and involved integration of geological, geophysical and geochemical methods. Defining surface-depth relationships was a prerequisite for interpretation of the processes, present and past, responsible for the formation of the lithosphere.

An understanding of rocks and the minerals that comprise them lies at the core of every geologist's education. As more curricula combine mineralogy and petrology into a single course, Raymond and Johnson have responded with a concise introduction to the study of Earth materials. The authors have written at a level that won't intimidate students encountering fundamental concepts for the first time, yet with enough rigor that they'll be well prepared for future study. A broad

approach to the subject that incorporates fluids and soils will appeal to instructors who teach engineering and environmental science students as well as future geoscientists. Abundant illustrations reinforce all of the ideas in the text. Many images are presented in color, with additional color images available at waveland.com/Raymond-Johnson. Problems appear throughout the book, encouraging a deeper understanding for students. Helpful appendices make it easy for instructors to assign further exercises in rock and mineral identification as well as optical mineralogy and petrography.

The Himalaya–Karakoram–Tibet mountain belt resulted from Cenozoic collision of India and Asia and is frequently used as the type example of a continental collision orogenic belt. The last quarter of a century has seen the publication of a remarkably detailed dataset relevant to the evolution of this belt. Detailed fieldwork backed up by state-of-the-art structural analysis, geochemistry, mineral chemistry, igneous and metamorphic petrology, isotope chemistry, sedimentology and geophysics produced a wide-ranging archive of data-rich scientific papers. The rationale for this book is to provide a coherent overview of these datasets in addressing the evolution of the mountain ranges we see today. This volume comprises 21 specially invited review papers on the Himalaya, Kohistan arc, Tibet, the Karakoram and Pamir ranges. These papers span the history of Himalayan research, chronology of the collision, stratigraphy, magmatic and metamorphic processes, structural geology and

tectonics, seismicity, geophysics, and the evolution of the Indian monsoon. This landmark set of papers should underpin the next 25 years of Himalayan research.

Volume 1A: Principles of Geologic Analysis A "how-to" primer describes the basic concepts petroleum geologists and students need to understand hydrocarbon exploration in a broad range of geological settings globally. Volume 1B: Phanerozoic Rift Systems and Sedimentary Basins Incorporates industry data to present regional seismic lines and cross sections to accurately document and analyze proven hydrocarbon systems. It also includes summaries of analogue and theoretical models as an essential backdrop to the structure and stratigraphy of a variety of geological settings. Volume 1C: Phanerozoic Passive Margins, Cratonic Basins and Global Tectonic Maps Focuses on both volcanic and non-volcanic passive margins as well as cratonic basins—critical habitats for hydrocarbons. It provides a unique basis for comparison of different passive margins and for an understanding of their structural and stratigraphic evolution, as well as their petroleum systems—especially useful to explorationists working in deep-water basins and researchers examining the tectonic evolution of the continent-ocean transition. A vast amount of data to enable hydrocarbon play assessments and analysis on passive margins is also included in this thorough yet accessible reference.

Individual volumes can also be purchased:

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Volume 1A discusses in detail the principles of regional geological analysis and the main geological and

geophysical tools used in basin analysis Volume 1B features simple documentation and analysis of major rift systems developed in contrasting geological settings as well as in-depth analyses of active rifts in various regions all over the world for immediately implementable petroleum exploration applications Volume 1C features real-world case studies and analyses, useful summaries of analogue and theoretical models, thorough documentation of numerous passive margins that are the focus of deep water oil exploration, and unique tectonic maps facilitating access to exact basin locations and their tectonic settings A companion website offers select downloadable images from the books:

<http://booksite.elsevier.com/9780444530424/index.php>

Earth as an Evolving Planetary System, Fourth Edition, examines the various subsystems that play a role in the evolution of the Earth, including subsystems in the crust, mantle, core, atmosphere, oceans, and life. This new edition includes over 100 new pages of material, data, and images. New topics include a new chapter on orogens and orogenic crust, as well as expanded coverage of oceanic topics. The Earth's atmosphere, hydrosphere, and biosphere, crustal and mantle evolution, the supercontinent cycle, great events in Earth history, and the Earth in comparison to other planets are also covered. Earth as an Evolving Planetary System, Fourth Edition is a key reference for students and researchers in the Earth and planetary scientists, especially for geologists, geophysicists, and geochemists. Presents comprehensive coverage of the Earth's history that is relevant for both students and

teachers Includes an important new chapter on Orogens and Orogenic Crust and expanded coverage of oceanographic topics (i.e., oceanic and hybrid crusts, oceanic lithosphere, and water in the deep mantle) Contains informative field images of different geological structures and processes from around the world to accompany the relevant concepts in the text

In *Revaluing Roman Cyprus*, Ersin Hussein provides a study of local identity formation in Roman Cyprus addresses its traditional characterisation as a weary, uneventful, and insignificant province and champions it as a rich case study for investigations of the Roman Empire. Hussein collates well-known, overlooked, and newly uncovered evidence to reevaluate local responses to, and experiences of, Roman rule. The investigation opens with a look at the island as a real and imagined space to explore its marginalisation in ancient and modern scholarly narratives. Hussein revisits the events surrounding the annexation of the island by Rome from Ptolemaic Egypt and its subsequent administration to establish the dynamics between the inhabitants of the island and their rulers. The spread and impact of Roman citizenship across the island is assessed through an exploration of the strategies employed by individuals to distinguish themselves in local and regional contexts. Hussein examines the poleis of Roman Cyprus, notably the preservation of their myths in literary records and the production of these in the material record, are examined to explore collective identity formation. Roman Cyprus is revealed as an active and dynamic participant in negotiating its identity and status in the Roman Empire.

An island was poised between multiple landscapes, Hussein shows how Cyprus maintained deep-rooted connections between mainland Greece, Egypt, Asia Minor, and the Near East.

Expert petroleum geologists David Roberts and Albert Bally bring you *Regional Geology and Tectonics: Phanerozoic Passive Margins, Cratonic Basins and Global Tectonic Maps*, volume three in a three-volume series covering Phanerozoic regional geology and tectonics. Its key focus is on both volcanic and non-volcanic passive margins, and the importance of salt and shale driven by sedimentary tectonics to their evolution. Recent innovative research on such critical locations as Iberia, Newfoundland, China, and the North Sea are incorporated to provide practical real-world case studies in regional geology and tectonics. The vast amount of volcanic data now available to form accurate hydrocarbon assessments and analysis at passive margin locations is also included into this thorough yet accessible reference. Named a 2013 Outstanding Academic Title by the American Library Association's Choice publication A "how-to" practical reference that discusses the impact of the development of passive margins and cratonic basins on the structural evolution of the Earth in regional geology and tectonic applications. Incorporates the increased availability of industry data to present regional seismic lines and cross-sections, leading to more accurate analysis and assessment of targeted hydrocarbon systems Analyses of passive margins and cratonic basins in East Africa, China, Siberia, the Gulf of Suez, and the Laptev Sea in the

Russian Arctic provide immediately implementable petroleum exploration applications. Summaries of analogue and theoretical models are provided as an essential backdrop to the structure and stratigraphy of various geological settings.

Early Earth Systems provides a complete history of the Earth from its beginnings to the end of the Archaean. This journey through the Earth's early history begins with the Earth's origin, then examines the evolution of the mantle, the origin of the continental crust, the origin and evolution of the Earth's atmosphere and oceans, and ends with the origin of life. Looks at the evidence for the Earth's very early differentiation into core, mantle, crust, atmosphere and oceans and how this differentiation saw extreme interactions within the Earth system. Discusses Archaean Earth processes within the framework of the Earth System Science paradigm, providing a qualitative assessment of the principal reservoirs and fluxes in the early Earth. "The book would be perfect for a graduate-level or upper level undergraduate course on the early Earth. It will also serve as a great starting point for researchers in solid-Earth geochemistry who want to know more about the Earth's early atmosphere and biosphere, and vice versa for low temperature geochemists who want to get a modern overview of the Earth's interior." *Geological Magazine*, 2008

This volume is an extended Proceedings of the "Ophiolite Symposium" which was held during the 29th International Geological Congress, Kyoto, Japan, 24 August--3 September, 1992. It focuses on the multiplicity and diversity of the circum-Pacific Phanerozoic ophiolites

and their intra-continental analogues. An introductory paper, summarizing characteristics of the circum-Pacific ophiolites is followed by papers dealing with particular segments of circum-Pacific ophiolite belts arranged in a counter-clockwise direction from New Zealand to Japan. These are followed by comprehensive documentations on multiple ophiolite belts within the Asian continent, as well as by a paper on a Tethyan ophiolite in Iran. Additionally, a report and a general view on the Late Proterozoic ophiolites are included.

Recent developments have shown that many full and partial ophiolites are preserved in Precambrian cratons. This book provides a comprehensive description and discussion of the field aspects, geochemistry, geochronology and structure of the best of these ophiolites. It also presents syntheses of the characteristics of ophiolites of different ages, and an analysis of what the characteristics of these ophiolites mean for the thermal and chemical evolution of the earth. This title emphasizes new studies of Precambrian Geology that have documented ophiolites, ophiolitic fragments, and ophiolitic melanges in many Precambrian terranes. Each chapter focuses on individual Precambrian ophiolites or regions with numerous Precambrian ophiolites, and covers field aspects, petrology, geochemistry, geochronology, and other descriptive aspects of these ophiolites, it also delves into more theoretical and speculative aspects about the interpretation of the significance of these ancient ophiolites.

Physical Geology is a vast subject and it is not possible to

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cover all aspects in one book. This book does not invent the wheel but merely put together sets of updated but concise material on Physical Geology with lots of illustrations. All illustrations are created by hand and give a real classroom feel to the book. Students or readers can easily reproduce them by hand. This is a book, where a diagram says it all. The book is divided into four parts. The first part “The Solar System and Cosmic Bodies” deals with elements of our Solar System and the cosmic bodies around it (like meteorites, asteroids, etc.). The second part “The Earth Materials” deals with Earth and its internal structure. The third part “The Hydrologic System” is more exhaustive and deals with the hydrological system of the Earth including Weathering and Mass Wasting, Streams, Groundwater, Karst, Glaciers, Oceans and Aeolian Processes and Landforms. The fourth and the final part “The Tectonic System” deals with different aspects of Plate Tectonics, Earthquakes and Volcanoes. Rocks exposed across the hundreds of islands that belong to the 800 km long Andaman--Nicobar archipelago provide a condensed window into the active subduction zone that separates the India--Australia plate from the over-riding Burma--Sunda plate. Despite a strategic and seismically active location the Andaman-Nicobar ridge has seen comparatively little research. This Memoir provides the first detailed and comprehensive account of geological mapping and research across the island chain and adjacent ocean basins. Chapters examine models of Cenozoic rifting of the Andaman Sea and the regional tectonic and seismogenic framework. A detailed critical review of the Andaman–Nicobar stratigraphy, supported by new data, includes arc volcanism and a description of Barren Island, India’s only active volcano. Seismic history and hazards and the impacts of the 2004 earthquake and tsunami are also described. The volume ends with an examination of the region’s natural

resources and hydrocarbon prospects.

This richly illustrated book reviews the geology, tectonics and mineralization of the Arabian-Nubian Shield (ANS) in 27 chapters. It starts with an examination of the ANS lithospheric scale features, explores Mesoproterozoic units and deals with the ANS oceanic stage. Arc volcanism and plutonism, post-collision basins and volcanics are discussed, as well as the younger granitoid magmatism and the deformation history of the ANS. The book provides information on ANS glacial stages and late magmatism. Chapters are devoted to review the transition between ANS and the reworked continent to its south. Finally, it discusses how ANS structures influenced the overall East African Rift System.

This Memoir provides a comprehensive review of the Precambrian basins of the four Archaean nuclei of India (Dharwar, Bastar, Singhbhum and Aravalli-Bundelkhand), encompassing descriptions of the time-space distribution of sedimentary-volcanic successions, the interrelationship between tectonics and sedimentation, and basin histories. Studies of 22 basins within the framework of an international basin classification scheme deepen an understanding of the basin architecture especially for cratonic basins. Most Indian sedimentary successions formed as cratonic to extensional-margin rift and thermal-sag basins, some reflecting mantle plume movement, subcrustal heating or far-field stress. This Memoir shows that Phanerozoic plate-tectonic and sequence stratigraphic principles can be applied to the Precambrian basins of large Archaean provinces. The differences between the stratigraphic architecture of the Indian Precambrian and examples of Phanerozoic basin-fill successions elsewhere are ascribed to variable rates and intensities of the controls on accommodation and sediment supply, and changes inherent in the evolution of the hydrosphere-atmosphere and biosphere systems.

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The book is a thoughtful discussion with scientists studying convergent plate boundaries such as the well-known, active India-Eurasia collision zone. It provides a comprehensive collection of petrographic images of ophiolitic rocks exhumed from oceanic lithosphere and mantle at the India-Asia plate boundary. Ophiolite is exposed in the northwestern Himalayas, eastern Indian plate margin and Andaman-Nicobar Islands. At the eastern margin, it occurs in a narrow strip comprising mantle peridotite tectonite, cumulate peridotite-gabbro-plagiogranite-anorthosite, mafic dyke, volcanics and oceanic sediments. Low temperature/high pressure rocks including blueschists and eclogites were extensively studied recently. Ophiolite derived sediments and podiform chromites will also be discussed to provide complete details. Supplemental maps, geological sections, field sketches and photographs will explain the structure, stratigraphy, ore mineralization, and metamorphic history. It has been 25 years since publication of the most recent English language summary of the geology of Japan. This book offers an up-to-date comprehensive guide for those interested both in the geology of the Japanese islands and geological processes of island arcs in general. It contains contributions from over 70 different eminent researchers in their fields and is divided into 12 main chapters.

Selected conference papers from the European Mantle Workshop, EMAW, held Ferrara, 2007.

Accompanying CD-ROM includes additional images and maps.

It has become apparent from the literature that bioerosional processes affect a wide range of biological and geological systems that cross many disciplines among the sciences. This book is

dedicated to crossing those traditional disciplinary boundaries to present a united and current perspective on the pattern and process of bioerosion. The book opens with papers on the evolutionary significance of bioerosion. It concludes with a primer on the bioerosion bibliography website. This book provides a complete Phanerozoic story of palaeogeography, using new and detailed full-colour maps, to link surface and deep-Earth processes.

Regional Geology and Tectonics: Principles of Geologic Analysis, 2nd edition is the first in a three-volume series covering Phanerozoic regional geology and tectonics. The new edition provides updates to the first edition's detailed overview of geologic processes, and includes new sections on plate tectonics, petroleum systems, and new methods of geological analysis. This book provides both professionals and students with the basic principles necessary to grasp the conceptual approaches to hydrocarbon exploration in a wide variety of geological settings globally. Discusses in detail the principles of regional geological analysis and the main geological and geophysical tools Captures and identifies the tectonics of the world in detail, through a series of unique geographic maps, allowing quick access to exact tectonic locations Serves as the ideal introductory overview and complementary reference to the core concepts of regional geology and tectonics offered in volumes 2

and 3 in the series

An examination of ancient and contemporary submarine landslides and their impact Landslides are common in every subaqueous geodynamic context, from passive and active continental margins to oceanic and continental intraplate settings. They pose significant threats to both offshore and coastal areas due to their frequency, dimensions, and terminal velocity, capacity to travel great distances, and ability to generate potentially destructive tsunamis. Submarine Landslides: Subaqueous Mass Transport Deposits from Outcrops to Seismic Profiles examines the mechanisms, characteristics, and impacts of submarine landslides. Volume highlights include: Use of different methodological approaches, from geophysics to field-based geology Data on submarine landslide deposits at various scales Worldwide collection of case studies from on- and off-shore Potential risks to human society and infrastructure Impacts on the hydrosphere, atmosphere, and lithosphere

This volume presents a set of research papers that provide new data and interpretations of the Permian–Triassic terranes of SE Gondwana, now exposed in South Island, New Zealand. Following an introduction for general readers, a historical summary and a review of biostratigraphy, the individual papers primarily focus on the Permian magmatic arc of the Brook Street Terrane, the

classic Permian Dun Mountain ophiolite and the Permian–Triassic Maitai Group sedimentary succession. The new results emphasize the role of subduction and terrane displacement adjacent to the Permo-Triassic Gondwana margin, and present fundamental insights into three crustal processes: subduction initiation, supra-subduction zone oceanic crust genesis and forearc basin evolution. The volume concludes with a wide-ranging summary and synthesis of the regional Cambrian to Early Cretaceous tectonostratigraphy of New Zealand's South Island in relation to the wider areas of Zealandia, East Australia and West Antarctica. The volume will interest geoscientists, including stratigraphers, sedimentologists, palaeontologists, igneous petrologists, geochemists, geochronologists and economic geologists, and is aimed at professional geologists and advanced students of geology.

The Eastern Mediterranean region is a classic area for the study of tectonic processes and settings related to the development of the Tethyan orogenic belt. The present set of research and synthesis papers by earth scientists from countries in this region and others provides an up-to-date, interdisciplinary overview of the tectonic development of the Eastern Mediterranean region from Precambrian to Recent. Key topics include continental rifting, ophiolite genesis and

emplacement, continental collision, extensional tectonics, crustal exhumation and intra-plate deformation (e.g. active faulting). Alternative tectonic reconstructions of the Tethyan orogen are presented and discussed, with important implications for other regions of the world. The book will be an essential source of information and interpretation for academic researchers (geologists and geophysicists), advanced undergraduates and also for industry professionals, including those concerned with hydrocarbons, minerals and geological hazards (e.g. earthquakes).

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