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Editor

Structural Geology and Tectonics Field Guidebook—Volume 2

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Dedicated to (retired) Prof. P.K. Saraswati,
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Preface

The purpose of this book is exactly same as that of the prequel volume 1 on the same broad topic (Mukherjee 2022)—this book presents few well-known and several rather unknown transects where exciting structures exist, and field programs can be established.

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Introduction

The book is a sequel of the previous edited volume 1 on the same broad subject (Mukherjee 2022). Indian terrain has been a matter of national and international attention to geoscientists because of its pure and applied geological research issues (e.g., Mukherjee 2015, 2020; Mukherjee et al., 2015, 2017). This edited book consists of **14** chapters contributed by **45** authors and co-authors from **6** countries. Geoheritage in India has been reviewed by Chandrasekharam (2007) and Kaur (2022).

Porcher et al. (2022; Chapter "Field Guide for a Complete Cross-Section of the Central Andes Along Main Roads"**)** present a field guide for a seven-day fieldwork in central Andes. The purpose of this chapter is to familiarize the reader with the structural, morphotectonic, stratigraphic, volcanic and sedimentary features of the orogen. **Pamplona et al. (2022; Chapter** "Structures Associated with the Dynamics of Granitic Rock Emplacement (NW Portugal)"**)** provide structural examples through photographs how granite rock emplacement in NW Portugal has been its cause. An enclave disruption mechanism within the granite body is proposed in this work. **Novakova (2022; Chapter** "Tectonically Significant Fault Zones in Central Europe (Germany, Czech Republic and Poland) and Their Surface and Subsurface Outcrops: Franconian Line, Hronov-Porici Fault, Sudetic Marginal Fault and Lusatian Fault"**)** describes the four major fault zones with NW trend in Central Europe. Understanding these faults will be important since they are active. **Singh et al. (2022; Chapter** "Geological Field Observations Along the Pandoh Syncline: The Mandi-Kataula-Bajura Section of Himachal Pradesh, NW-India"**)** discuss lithologies and structures of the Mandi-Kataula-Bajura section of the Indian Himachal Lesser Himalaya. These workers also add up new metamorphic information into their study. **Ganguli et al. (2022; Chapter** "The Rock Outcrops at Raghunathdi, SE of Ghatsila (Jharkhand, India): a Spectacular Preservation of Polyphase Folding"**)** present Paleo-Proterozoic lithologies and structures from the Indian state Jharkhand. The structures mainly include superposed folding. **Samanta and Kundu (2022; Chapter** "Spectacular Soft-Sediment Deformation Structures in Sedimentary Rock Outcrops of Damodar Valley Basin, West Bengal, India: A Field Guide"**)** describe primary structures in sedimentary rocks including syn-sedimentary deformation structures from the Damodar

Valley in West Bengal (India). **Lohani et al. (2022; Chapter** "Structural Geological Field Guide: Bhuj Area (Gujarat, India)") present in detail structures associated with the active segment of Katrol Hill Range Fault Zone, Kutch area, Gujarat, India. **Sinha et al. (2022; Chapter** "Structural and Sedimentary Field Studies in Angul District, Odisha, India") describe a geological fieldwork with sedimentology and structural geology as focus from the Angul District, Odisha, India. The rock types in this region are of diverse ages—Archean-Proterozoic metamorphics and migmatites, Gondwana Supergroup of sedimentary succession and the overlying Quaternary deposits. **Puniya et al. (2022a; Chapter** "New Structural Geological Input from the Barmer Basin, Rajasthan (India)") provide new field-based structural geologic data from the eastern, western and northern parts of the Barmer basin in terms of brittle faults, brittle shear zones and dykes. A N-S compression was decoded, which could be the result of India–Eurasia collision. In another work, **Puniya et al. (2022b; Chapter** "Structural Geology and Stability Issue of the Giral Lignite Mine, Rajasthan, India") present structural geology from the Giral Lignite Mine, Barmer area. Two normal faults were documented and were correlated with Barmer basin's rifting. **Puniya et al. (2022c; Chapter** "Relationship Between Deformation Structures and Rock Mass Rating: A Case Study of Underground Power House, Andhra Pradesh—India") discuss structural geological studies relevant to an underground powerhouse construction in West and East Godavari Districts, Andhra Pradesh, India. The authors documented four sets of joints from the study area. **Bhu et al. (2022; Chapter** "Microstructures Mimic Meso-Scale Structures") discuss structures from a deformed Precambrian metasedimentary terrane of the Aravalli craton, India. Through mesoscale and microscale studies, the authors prove the established fact that structures can be fractal in nature. **Ansari (2022; Chapter** "Review on Role of Multi-Constellation Global Navigation Satellite System-Reflectometry (GNSS-R) for Real-Time Sea-Level Measurements") reviews how multi-constellation Global Navigation Satellite System Reflectometry can aid a field geologist in coastal tectonics studies. **Haldar et al. (2022; Chapter** "Architecture and Structures of Kiradu Temple (Barmer Region, Rajasthan, India)") discuss in great detail the architectures of the less known Kiradu temple in the Barmer area, India.

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