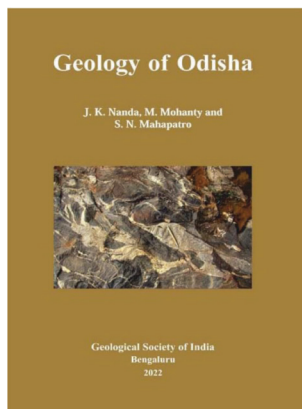


## BOOK REVIEWS



**Geology of Odisha.** J. K. Nanda, M. Mohanty and S. N. Mahapatro. Geological Society of India, Bengaluru, India. 2022. viii + 410 pages. Paperback. Price: ₹ 750. ISBN: 978-93-80998-47-3.

The state of Odisha covers about 155,707 km<sup>2</sup> (~5% of the total area of India) on the eastern margin of Peninsular India. It is the leading mineral-producing state, accounting for ~34.3% of the country's mineral production. The state has received considerable attention from different exploration agencies for bulk minerals, as well as non-bulk strategic and energy technology minerals and materials, resulting in generating low-level aerial geophysical data for a major part of the state. The geology of the state has immense importance in providing a link (particularly with Western Australia and Antarctica) for reconstructing the formation of the Gondwanaland supercontinent during the Palaeozoic and its dispersal during the Mesozoic. The Precambrian rocks covering 72% of the state's surface area also provide an opportunity to examine the models of super cratons that existed before the formation of the Gondwanaland. The preservation of the oldest cratonic nuclei of India, the Singhbhum and Bastar cratons in the north-eastern and western parts of the state and the development of a Paleoproterozoic–Mesoproterozoic orogenic Belt (the Eastern Ghats Mobile Belt) with northeast-southwest alignment and preserving records of ultra-high temperature metamorphism, have received considerable attention of geoscientists from different parts of the world and generating vast amounts of data related to the evolution of Precambrian rocks of the state. A reasonable compilation of these data, providing a synthesis of first-hand information by persons involved in generating these data, was long-awaited. The *Geology of Odisha* by J. K. Nanda *et al.* fills this gap.

The book contains nine chapters. Chapter 1 on Geomorphology contains a brief introduction to the physiography and history of the state, followed by details of different geomorphological units. Chapter 2 provides an overview of the Geology of Odisha. Chapter 3 covers the Singhbhum Craton in 147 pages containing 43 maps, geological sections and field photographs, 36 tables of geochemical, geochronological and lithostratigraphic data. It also contains Proterozoic metamorphic belts bordering the craton and the economic potential of different lithostratigraphic units. Chapter 4 deals with the Bastar Craton and associated supracrustal belts and provides an overview of the geology of the craton in the adjacent state of Chhattisgarh. An overview of the kimberlite field and tin mineralization provides background materials for interested entrepreneurs. Chapter 5 is the second largest in the book covering the Eastern Ghats Mobile Belt – 108 pages. This chapter contains 52 figures and provides excellent first-hand information and critical analyses of different lithotectonic domains, geophysical studies, structure and tectonics of the region. The boundary relationships with the adjacent cratons and the importance of the Eastern Ghats in the Indo-Antarctic correlation are provided in this chapter. Chapter 6 provides details of the Rengali Province, separating the Singhbhum block from the Eastern Ghats. The compilation of this little-known province and its economic potential for PGE mineralization provides sufficient material for people in the exploration industry. Chapter 7 contains summarized versions on lithostratigraphy, depositional environment and correlations of five Proterozoic intracratonic basins. Chapter 8 on the Gondwana Supergroup contains descriptions of eight basins in terms of basin configuration, correlation and coal deposits. Chapter 9 deals with the Cenozoic sequence of Odisha. This chapter contains small sections on on-shore and off-shore geological units, basin development and hydrocarbon potential.

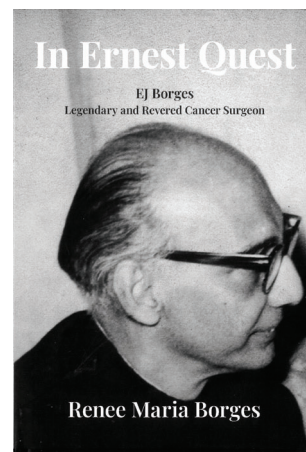
Each chapter contains original maps (both in colour and greyscale), as well as greyscale photographs and images and up-to-date references on the subject. Petrographic and geochemical data have been provided throughout the book. The authors have given their critical analysis and interpretations, along with the earlier ideas and statements regarding future directions for investigations in critical areas. A large-size coloured geological map provides an excellent synthesis of the geology of the

state. In accordance with the practice of the publishing society, mineral resources are not discussed in detail in this book but are left for publication in another series. However, small sections on the economic potential of different geologic units are sufficient for interested geoscientists and entrepreneurs.

The book is an outstanding contribution by the three authors having a track record of publications in similar series and international journals (mentioned in the last two pages about the authors). Two authors retired from service in the Geological Survey of India, and the third author is still serving the same organization. The book would be useful to geologists, entrepreneurs, as well as students of geology who are interested in intercontinental correlation and the exploration and development of resources. It provides first-hand information synthesized in one place.

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**In Ernest Quest: E. J. Borges – Legendary and Revered Cancer Surgeon.** Renee Maria Borges. CinnamonTeal Design and Publishing, Plot No. 16, Housing Board Colony, Gogol, Margao, Goa 403 601. 2022. 417 pages. Price: Rs 995.

It took much longer than I anticipated to read this book. I found myself reading a few pages each time and then putting the book down to reflect because this book