# PINK AND GREEN MARBLES OF UDAIPUR

(Written under the e-book writing mission of the Mohanlal Sukhadia University, Udaipur)



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Mohanlal Sukhadia University Udaipur, Rajasthan India

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## FOREWORD



## Prof. Amarika Singh

Vice Chancellor, Mohanlal Sukhadia University, Udaipur, Rajasthan

The preparation of e-book, "Pink and Green Marbles of Udaipur" from Department of Geology, M.L. Sukhadia University, Udaipur by authors, Dr. Ritesh Purohit, Head, Department of Geology and Dr. Harsh Bhu, Professor Retired, is a high commendable task. I firmly believe that this book will be not only helpful for the students of Earth Science but also for the benefit of the stake-holders in the field of Geology and Mining.

The orientation of the book is primarily on variety of marbles which are quite different from the ordinarily available white marble, which will attract variety of people from scientific background to work upon for future research studies.

I whole-heartedly congratulate both the authors for the effort they have made in creating this unique work on marbles. Best wishes and Blessings.

#### (Prof. Amarika Singh)

## MESSAGE



### Prof. B.R. Bamniya

Chairman, Faculty of Earth Science, Mohanlal Sukhadia University, Udaipur, Rajasthan

It gives me immense pleasure to take note of the publication of an e-book entitled, "Pink and Green Marbles of Udaipur" jointly by Dr. Ritesh Purohit, Associate Professor & Head, and Dr. Harsh Bhu, Retired Professor from Department of Geology, Faculty of Earth Science.

The e-book is a concise account of the Pink and Green Marble occurring in the vicinity of the Udaipur and bears special geological significance. The authors have done a great job of providing each and every technical aspect about both the marble varieties which are popular in the entire world besides the white marble from the area.

Both the authors deserve a big applaud for bringing out this piece of knowledge.

Congratulations and Best wishes.

#### (Prof. B.R. Bamniya)

# MESSAGE



#### Prof. G.S. Rathore Dean University College of Science Mohanlal Sukhadia University Udaipur, Rajasthan

I am pleased to know that an e-book entitled "Pink and Green Marbles of Udaipur" has been written jointly by Dr. Ritesh Purohit, Head & Associate Professor, Department of Geology and Ex. Professor Dr. Harsh Bhu. The e-book is an effort in accordance with the spirit generated by the Hon'ble Vice Chancellor Prof. Amarika Singh for faculty members to create authentic reading material for students of the University and others as well.

The book is mainly based upon the occurrences and characteristics of the Pink and Green Marble of Udaipur, which will enable students, scholars, faculties and even common man to develop understanding about the marbles occurring in the Udaipur region besides the white marble. I congratulate to both the authors for creating this concise piece of knowledge about the marbles.

Best wishes

(Prof. G.S. Rathore)

## PREFACE

The objective of writing this book is to let know readers about the variability of marbles occurring in the Udaipur region of Rajasthan. Udaipur is known for Marble production and mining not only in India but globally also. Well-reported occurrences of white, pink and green marble are known from Udaipur and adjoining districts. A lot has been already talked about the White Marble in many of literatures but inadequate information is available about the occurrences and characteristics of the Pink and Green Marble. This write-up in form of an e-book under the aegis of Mohanlal Sukhadia University will help not only students of geology, but as a whole to marble loving fraternity.

"Pink and Green Marbles of Udaipur", as the title speaks entails about the glorified variability of marble availability in Mewar region of Udaipur and its nearby locations. The Pink Marble is located mainly at Babarmal area of Udaipur district and it further extends towards south up to Paloda in Dungarpur district and adjoining in the Banswara district. These are unique calcitic carbonate rocks in the predominantly dolomitic terrain of the Aravalli Mountain Belt. This makes it unique and its pink colouration is due to concentrations of Manganese. Similarly, the Marbles characterized Green are bv the anomalous concentration of Magnesium mineral which makes it а serpentine rock. Polishing is the major component which makes it viable to sale these rocks as Marble. These rocks are spread in linear belts in a length of several kilometres. The Pink Marble occurs along the Udaipur Banswara Belt (UBB) while the green marble is spread along the Rakhabdev and Iharol Belts.

The two marble belts are a major revenue earners for the mining department of Udaipur region and makes it more wonderful since a lot is being exported also. The marbles are mined through open-cast mining methods with the latest technology of wire-saw cutters and polished with latest techniques. A huge number of manpower is involved in the marble business and lot of job opportunities exist. These "Pinks and Greens" are the bread earners for many in Rajasthan and enlightening the name of state world over. This book is a small tribute to all these workers.

> Ritesh Purohit Harsh Bhu

## **ACKNOWLEDGMENT**

At the onset authors would like to thank Hon'ble Vice Chancellor Prof. Amarika Singh, Mohanlal Sukhadia University, Udaipur for providing us an opportunity to work upon a writeup in form of an e-book for the benefit of the students and larger benefit of the society as such. We feel this opportunity has given us chance to bring forth a small package of knowledge on the marble occurrences of Mewar region of Rajasthan.

The authors share their gratitude towards the Dean College of Science and the Chairman, Faculty of Earth Science, Mohanlal Sukhadia University Udaipur for providing congenial environment to work out and bring up an e-book which will be used by research scholars and post-graduate students of the earth sciences.

We are thankful to the Head, Department of Geology as well as various faculty members of the Department of Geology, Mohanlal Sukhadia University Udaipur for helping us with the library and other academic resources to write this book. The authors are grateful to Dr P.C. Avadich, Retired Professor Geology for providing an insight on the economic minerals of Babarmal area. We are especially thankful to Dr. N.K. Chauhan, Retired Professor-Geology, Dr. Anju and Dr Abu-Hammatteh for their research contributions especially on green marble belts which are incorporated in this e-book. Authors also pay gratitude to the Department of Mines and Geology, Government of Rajasthan for the help in providing the data.

The authors are extremely thankful to Dr Prakshal Mehta and Dr Joga Ram, ex-research scholars of the Department who have provided their help in contributing their research work on the Pink Marble and Green Marble respectively. Last but not the least the family members of both the authors are acknowledged for giving their valuable contribution with the necessary help in writing this e-book.

> Ritesh Purohit Harsh Bhu

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