

**MAP MODELING IN GEOGRAPHY:
INCLUDING THE USE OF SAND, CLAY
PUTTY, PAPER PULP, PLASTER OF
PARIS, AND OTHER MATERIALS; ALSO
CHALK MODELING IN ITS ADAPTATION
TO PURPOSES OF ILLUSTRATION**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649189359

Map modeling in geography: including the use of sand, clay putty, paper pulp, plaster of Paris, and other materials; also chalk modeling in its adaptation to purposes of illustration by Albert Elias Maltby

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

www.triestepublishing.com

ALBERT ELIAS MALTBY

**MAP MODELING IN GEOGRAPHY:
INCLUDING THE USE OF SAND, CLAY
PUTTY, PAPER PULP, PLASTER OF
PARIS, AND OTHER MATERIALS; ALSO
CHALK MODELING IN ITS ADAPTATION
TO PURPOSES OF ILLUSTRATION**



MODELING BOARD WITH MAP OF NORTH AMERICA.

MAP MODELING IN GEOGRAPHY

INCLUDING THE USE OF

SAND, CLAY, PUTTY, PAPER PULP,
PLASTER OF PARIS, AND
OTHER MATERIALS

ALSO

CHALK MODELING

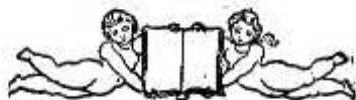
IN ITS ADAPTATION TO PURPOSES OF ILLUSTRATION

FULLY ILLUSTRATED

BY

DR. ALBERT ELIAS MALTBY, A.M., C.E.

Principal of Slippery Rock State Normal School, Pa.



NEW YORK AND CHICAGO:
E. L. KELLOGG & CO.

TO
MY MOTHER
RACHEL EMELINE MALTBY
THIS BOOK IS DEDICATED AS A
TRIBUTE OF LOVE AND HONOR

PREFACE.

THE use of modeling as a means of symbolizing the various land forms in geography has become so valuable in these days of advanced methods in teaching, that it is thought these abstracts from the practical methods of a schoolroom may be found helpful to many teachers. Any application of the anthropomorphic idea of fashioning or making will follow the law of all child-thought in that the unknown is assimilated to the known. The child is really and directly familiar with only one mode of origin, and that is the making of things. One of the great joys of children is to be able to make things; and this desire, which is indeed very great, should be utilized in their instruction.

All the elements of geographical science are found near every schoolhouse; therefore the home district should be studied first. Ritter says, "Wherever our home is, there lie all the materials that we need for the study of the entire globe."

The available language of geography can alone render these home elements valuable; and modern educators are almost unanimous in the claim that speech, modeling, pictures, sketches, and maps form the primal language of the science. These symbols, however, are of use only when they fix a mental picture of the thing represented, and do not fix attention upon themselves. Through the constructive phase of the imagination, unseen places and peoples must be brought vividly before the mind, and the pupils may then translate them into the language of models, chalk models, pictures, and maps.

Geography is truly a study of the earth as the home of man,

Preface.

and should become "a school of culture for the human race, and an essential link in the chain of sciences." All molding or drawing that simply reproduces the form of the map, without enlarging and completing the pupil's concept of surface structure, fails of its intended object. It becomes a hindrance rather than an aid, since it fails to build up in the mind a concept of the country or continent as a unit.

The teacher will, however, use modeling as a *means*, not as an *end*, and thus make it a power in good instruction.

A. E. M.

STATE NORMAL SCHOOL, SLIPPERY ROCK, PA.,
May 10, 1895.

TABLE OF CONTENTS.

	PAGE
DEDICATION	4
PREFACE	5
A. MAP MODELING IN GEOGRAPHY.....	9-15
ELEMENTARY GEOGRAPHY.....	9
MATERIALS IN SAND-MODELING.....	11
VALUE OF RELIEF-MAPS.....	14
PRIMARY WORK.....	16-44
I. The Fields.....	17
II. The Slope.....	19
III. The Hill.....	21
IV. A Primary Lesson on Hills.....	22
V. Local Geography.....	24
VI. The Spring.....	28
VII. A Brook Basin.....	30
VIII. Mountains.....	31
IX. A River Valley.....	34
X. An Active Volcano. I.....	36
XI. Volcanoes II. Vesuvius.....	39
XII. Volcanoes III. The Middle Seas.....	43
NATURE STUDY.....	45-65
I. An Observation Lesson.....	46
II. The Common Rocks.....	47-50
1. Scale of Hardness.....	47
2. Quartz.....	48
3. Granite.....	48
4. Sandstone.....	49
5. Hornblende.....	49
6. Limestone.....	49
7. Marble.....	50
III. A Lesson on Coal.....	50
IV. A Field Lesson.....	52
V. Children's Report of the Lesson.....	56