

**THE TEACHER'S MANUAL OF
GEOGRAPHY: I. HINTS TO
TEACHERS. II. MODERN
FACTS AND ANCIENT FANCIES**

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The Teacher's Manual of Geography: I. Hints to Teachers. II. Modern Facts and Ancient Fancies
by Jacques W. Redway

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JACQUES W. REDWAY

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MANUAL OF GEOGRAPHY

I. *HINTS TO TEACHERS*

II. *MODERN FACTS AND ANCIENT FANCIES*

BY

JACQUES W. REDWAY



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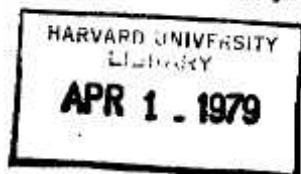
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By JACQUES W. REDWAY.



PREFACE.

THE suggestions offered in the following Manual have been prompted by experience in the school-room, as well as by that of exploration and travel. They are intended as a supplement, and not as a substitute, for the ordinary work of the teacher. They will be of no avail whatever where the only aim in the study of geography is the preparation for examination. I have thought it unnecessary to present any graded course of study. The admirable work of Professor Frye, 'Child and Nature,' leaves in that direction nothing to be desired. Mr. Nichol's 'Topics in Geography' will also be found a most useful companion.

In the second part of the Manual I have considered some of the traditions of geography, in the light of modern science. Some of the discussions have not previously been published; and much of the material has been drawn from sources that to most educators are not readily available.

I am not of the opinion that the average teacher needs pedagogical regeneration; on the contrary, I believe that less energy devoted to improvement of methods, and a little more to the quality of the material taught, would not be amiss.

Acknowledgments are due to Miss E. M. Reed of the Training School, Springfield, Mass., for many valuable hints in the preparation of this work.

J. W. R.

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PART I.

HINTS TO TEACHERS.

I.

PRELIMINARY ORAL WORK.

It is hardly an exaggeration to say that the average child learns more of the science of geography in his rambles out of doors, before beginning the study in his school course, than he learns from the text-book after his school work in that study begins. The reason is that, in the one case he reads geography in nature, in the other from the printed page. No matter how well and how faithfully the teaching may be done, the disadvantages arising from the use of words and sentences instead of things in nature, are too great to be easily swept away. Within a few years the importance of this fact has been so widely recognized by primary teachers that, in a majority of schools, text-book work has been largely abandoned in primary grades, and oral lessons, aided by the moulding-board and the study of natural forms, have very properly taken its place.

The outline of the following course in oral primary geography was furnished at the author's request by Miss Mathilde E. Coffin, of the Millersville, Pa., State Normal School, as a basis for the preparation of this and the following chapter. It is intended as a list of topics for oral work rather than a systematic course of study. Much of the work discussed must necessarily be done out of doors. Children who like to make 'mud pies' will take equal delight in modelling natural forms in sand or in clay. Time ordinarily spent in aimless rambling will be gladly devoted to the collection and study of natural objects when once there is an incentive for it. In ungraded country schools the wise plan of keeping primary pupils out of doors at all times when they are not engaged in recitation

is an excellent one, and these are the golden hours which the child may devote to the study of nature. The out-of-door work should of course be supplemented by the necessary developmental exercises, and lessons in oral expression in the school-room. Bear in mind, also, that while recitation-hearing is an easy matter, teaching children how to study and how to observe is a qualification demanding the highest capabilities of the teacher.

Form. — It is well, so far as possible, to acquire a knowledge of form from natural objects. Fruit, crystals, forms of leaves, shells, animals, and geometric forms will all furnish instructive lessons. At first the work must be wholly imitative, but, as skill is acquired, objects may be modelled from memory. With the modelling of geometric forms comes the necessary instruction in the use of descriptive terms, such as plane, curved, level, cubic, spherical, square, circular, slanting, vertical, angle or corner, solid, horizontal, etc. Inculcate with every step ideas of neatness in work and faithfulness to the copy.

Size. — Teach by actual measurement all the units of linear measure within the comprehension of the pupil. The latter should be taught to estimate the inch, foot, and yard with the eye. It will be found rather more difficult to estimate vertical than horizontal distances, especially if the eyesight be at all astigmatic. It is well to have a pupil learn the length of his ordinary step, so that he can pace either a rod or one hundred feet with reasonable accuracy. It is not a difficult matter to estimate a distance of one mile, but the estimate would better be made by reckoning the time required to walk it, rather than by the number of steps. The average adult takes about two thousand steps to the mile. Three and one half miles per hour is a fair, four miles a brisk, and five miles per hour a very rapid gait. Time that is spent in estimating and measuring the dimensions of objects is by no means wasted. The ability to estimate measurements accurately has a practical value to which every person in active business life will testify. The estimation of angular distance is also an excellent drill. By subdividing an arc which measures a right angle, into halves and

thirds, almost any angle can be estimated to within two or three degrees.

Color. — The proper development of the color-sense is of no little importance to the student of nature. It is well, for many reasons, to make a special test of the color-sense of each pupil. About ten per cent of young children are deficient in color-vision. Of this proportion, some are deficient through physiological causes, others from a lack of development of the color-sense, and still others from ignorance of the names of colors. The two latter causes are remediable, and can be easily removed if the teacher will take a little extra pains with each individual pupil. Select at first, only bright, pronounced colors, and teach their names. Afterwards exercise every pupil in selecting graduated shades of each color. A pupil who is physiologically deficient in the color-sense will most likely fail in distinguishing the reds and greens. Use only well-known and standard names for the various shades and mixtures. Such names as 'ecru,' 'faded rose,' 'crushed strawberry,' etc., are whims of fancy only, and change with the fashions.

In teaching the primary colors it is best to use the classification which science has shown to be the true one, namely — *red, green, and violet*.¹

Viewing bits of colored silk through pieces of colored glass is in many respects a useful exercise, and will be of material service in the development of the color-sense.

But the colors and the color-names that the pupil must familiarize himself most thoroughly with are those that he finds in nature. There are the various shades of red, as damask, crimson, and scarlet; the greens, as pistachio, apple-, and pea-green; the blues, as indigo, sky-, ultramarine, and cobalt-blue. There are also the various shades of lilac, pink, pearl, violet, salmon, fawn, sable or

¹ The old scheme of red, yellow, and blue holds true in mixing a few colors, but fails lamentably in the majority of cases. The trouble arises from the fact that nearly all the red, blue, and yellow pigments are *mixed* or impure colors.