SHALL WE TEACH GEOLOGY?: A DISCUSSION OF THE PROPER PLACE OF GEOLOGY IN MODERN EDUCATION

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Shall We Teach Geology?: A Discussion of the Proper Place of Geology in Modern Education by Alexander Winchell

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ALEXANDER WINCHELL

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BY

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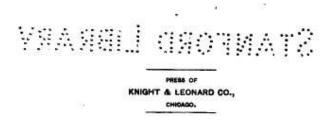
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PREFACE.

THE author of this book simply yields to the convictions of his judgment, the promptings of his heart and the lessons of his experience. He seeks only to set forth the value of geologic study as he estimates it, as he feels it, as he has learned it by much practice in the teaching of a wide range of subjects.

It is his opinion that our educational authorities come widely short of a truthful estimate of the proper position of geology ; and he believes that this results from its traditional exclusion from the schools, and consequent ignorance of the fact that geology possesses a power of broad and diversified culture, and exerts an ethical influence which deserves to be held in highest esteem. He believes that the earlier study of geology would tend to conserve the proper balance of the intellectual powers : and a more generous allowance of space in the curriculum of the schools would improve popular intelligence on one of the great agencies of culture and civilization ; and would contribute to render our public education more symmetrical and more liberal. The obstacles to the larger introduction of geology are here considered both theoretically and practically; and an attempt has been made to show that when once admitted to a standing, geology may be best taught by bringing the pupil face to face with nature. Though in this method, superior success will be won by the expert teacher, the untrained, with facilities now placed in his hands, has no reason to shrink from the undertaking.

The author's treatment of the themes discussed will be readily understood from the analysis which follows. Opinions of others he has criticised with freedom, but it has been always with good nature, and with a full recognition of the fact that linguistic and literary studies possess real value in education, and ought always to be retained in properly balanced relations to the natural sciences.

UNIVERSITY OF MICHIGAN,

ANN ABBOR, 13 November, 1888.

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CONTENTS.

91.

I. GEOLOGY IN THE EDUCATIONAL STRUGGLE FOR EXISTENCE.

II. GROLOGY IN THE SCHOOLS.

40

III. WHAT IS MEANT BY CULTURE ?

IV. DIVERSIFIED ASPECTS OF GEOLOGICAL STUDY.

V. GROLOGY AND CULTURE.

VI. CLASSICS AND CULTURE.

VII. THE ETHICAL INFLUENCE OF GEOLOGICAL STUDY.

VIII. GEOLOGY AND MODERN CIVILIZATION.

IX. GEOLOGY IN THE ORDER OF STUDIES.

X. EDUCATION VALUES.

53

XI. OBSTACLES TO REFORM.

XII. APPLICATION OF THE OBSERVATIONAL METHOD.

XIII. PRINCIPLES AND METHODS OF GEOLOGICAL STUDY.

12

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6

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ANALYSIS.

ACTUAL POSITION OF GEOLOGY IN PUBLIC EDUCATION. In certain colleges and universities. (I.) Rivalry of professional studies. Rivalry of linguistic and literary studies. Rivalry of studies preparatory for teaching. Geologic studies purely unprofessional. Illiberal allowances of means to geology. In the schools. (II.) General results of inquiries. Specific results of inquiries. Particulars of replies to inquiries. Why geology is excluded. Opinions on geology in lower schools. WHY GEOLOGY DESERVES BETTER RECOGNITION. Its study promotes intellectual culture. What is meant by intellectual culture psychologically considered. (III.) Powers of mind amenable to culture. Diversified aspects of geological study. (IV.) Geology discriminated from other studies. Illustration from the doctrine of a cooling globe. Observation and induction. Retrospective deduction. Prospective deduction. Ethical influence of geologic conceptions. Adaptation of geology to ends of general culture. (V.) Observational geology and its adaptations. Inductive geology and stimuli to imagination. Deductive geology and stimuli to imagination. Classical and literary studies in comparison. (VI.) Other inquiries as to the nature of culture.