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Education In Geology*

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INTRODUCTION

I believe that a Section Chairman's Address should if possible be both instructive and provocative. If it cannot be both, then it is better to be provocative, so the remarks that follow are given in the hope of stirring up a fruitful exchange of views on the subject of education in geology, especially for New Zealand—how well it is being carried out with respect to the national requirements, and how it might be improved.

GEOLOGY IN THE SCHOOLS

At the secondary school level it is obviously a case of "geology in education" rather than the reverse. The earth sciences should be included in school science for several good reasons. Apart from the general claim that a curriculum in general education can hardly be considered complete without it, geology provides lateral support for the subjects of geography and biology, and by showing how the findings and methods of one science find applications in another it demonstrates the unity of knowledge and the arbitrary character of the divisions between the sciences. It provides excellent opportunities for training in observation and reasoning, and for illustrating the scientific method. So much can be done with no more in the way of equipment than a map, a hand-lens, a pocket knife, a hammer, and an alert mind. No other study is as effective in developing a proper perspective of time, through which the tempo of physical processes on the earth, the span of human history, the time-demands of organic life-cycles and organic evolution, and so on, are seen in true relative proportions, and a true appreciation gained of earth history in all its aspects. Local geological structures, rock types, and the later geological histories of regions determine landforms, soil types, sources of raw materials, water supply, and so help to determine the character and the groupings of human populations.

* The substance of the Chairman's Address, Section D, XI New Zealand Science Congress, Royal Society of New Zealand, Auckland, February 1965.

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