

sediment the material accumulated by decay. Every change of elevation was accompanied with changes of climate, and with modifications of the habitats of animals and plants. Were it possible to restore accurately the physical geography of the earth in all these respects, for each geological period, the data for the solution of many difficult questions would be furnished.

We have wandered through space and time sufficiently for one chapter, and some of the same topics must come up later in other connections. Let us sum up in a word. In human history we are dealing with the short lives and limited plans of man. In the making of worlds we are conversant with the plans of a Creator with whom one day is as a thousand years, and a thousand years as one day. We must not measure such things by our microscopic scale of time. Nor should we fail to see that vast though the ages of the earth are, they are parts of a continuous plan, and of a plan probably reaching in space and time immeasurably beyond our earth. When we trace the long history from an incandescent fire-mist to a finished earth, and vast ages occupied by the dynasties of plant and animal life, we see not merely a mighty maze, an almost endless procession of changes, but that all of these were related to one another by a chain of causes and effects leading onward to greater variety and complexity, while retaining throughout the traces of the means employed. The old rocks and the ancient lines of folding and the perished forms of life are not merely a scaffolding set up to be thrown down, but the foundation stones of a great and symmetrical structure. Is it yet completed? Who can tell? The earth may still be young, and infinite ages of a better history may lie before it.

REFERENCES ¹: Presidential Address to the American Association for the Advancement of Science, meeting at Minneapolis, 1883. "The Story of the Earth and Man." Ninth edition, London, 1887.

¹ The references in this and succeeding chapters are exclusively to papers and works by the author, on which the several chapters are based.