

been the geological history of Tuscany. In this summary he illustrates the structure of the country by a series of diagrams which show how clearly he had grasped some of the fundamental principles of stratigraphy. He recognises evidence of six distinct chronological phases, and is inclined to believe that the same sequence will be found all over the earth. In the first phase, the region was entirely submerged under the sea, from which were deposited the strata containing no remains of plant or animal life. In the second phase, the land appeared as a dry plain, raised out of the sea. In the third, the face of the earth was broken up into mountains, crags and hills. In the fourth, the land was once more submerged, perhaps owing to a change in the centre of the earth's gravity. In the fifth, the land reappeared and displayed wide plains, formed apparently from the sediments carried off from the land by the large rivers and by the innumerable torrents which every day are extending the shores and leaving new lands to be occupied by fresh inhabitants. In the sixth and last phase, the elevated plains were eroded by running water and partly also by the co-operation of subterranean fire, so as to be altered into channels, valleys and precipices.

Steno's treatise stands out far above all the writings of his own or of previous generations in respect to the minuteness and accuracy of his observations of Nature and the originality and truth of most of the deductions which he drew from them. He was the first clearly to perceive that the strata of the earth's crust contain the records of a chronological sequence of events, and that the history of the earth must be deciphered from them.