

development, and effected this reform in a manner similar to that in which, thirty years later, Darwin in his work reformed the science of Biology. Lyell's great treatise, which radically destroyed Cuvier's hypothesis of creation, appeared in the same year in which Cuvier celebrated his triumph over the nature-philosophy, and established his supremacy in the domain of morphology for the following thirty years. Whilst Cuvier, by his artificial hypothesis of creation and his theory of catastrophes connected with it, directly obstructed the path of the theory of natural development, and cut off all chance of a natural explanation, Lyell once more opened a free road, and brought forward convincing geological evidence to show that Cuvier's dualistic conceptions were as unfounded as they were superfluous. He demonstrated that those changes of the earth's surface, which are still taking place before our eyes, are perfectly sufficient to explain everything we know of the development of the earth's crust in general, and that it is superfluous and useless to seek for mysterious causes in inexplicable revolutions. He showed that we need only have recourse to the hypothesis of exceedingly long periods of time in order to explain the formation of the crust of the earth in the simplest and most natural manner by means of the very same causes which are still active. Many geologists had previously imagined that the highest chains of mountains which rise on the surface of the earth could owe their origin only to enormous revolutions transforming a great part of the earth's surface, especially to colossal volcanic eruptions. Such chains of mountains as those of the Alps or the Cordilleras were believed to have arisen direct from the fiery fluid of the interior of the earth, through an enormous chasm in the