geography and geology. Such lectures as remained in manuscript after his death were collected and published in a folio volume of posthumous works (London, 1705). The largest section of this book consists of "Lectures and Discourses of Earthquakes and Subterraneous Eruptions, explicating the Causes of the Rugged and Uneven Face of the Earth; and what Reasons may be given for the frequent finding of Shells and other Sea and Land Petrified Substances scattered over the whole Terrestrial Superficies."

Beginning with an account of "figured stones" or organic remains imbedded in rocks, illustrated with well-drawn figures of fossils, Hooke discusses the difficulties met with in explaining the nature and origin of these objects, and proves in a series of propositions that the fossils are either the organisms themselves turned into stone, or the impressions left by them; 2 that a great part of the surface of the earth has been transformed since the Creation, sea being turned into

<sup>1</sup> Though the volume did not appear until after the author's death, the first discourse seems to have been given in 1668.

<sup>2</sup> The truly organic nature of the fossils is the subject of a careful demonstration by Hooke, in the course of which he remarks "that it is contrary to all the other acts of Nature, that does nothing in vain, but always aims at an end, to make two bodies exactly of the same substance and figure, and one of them to be wholly useless, or at least without any design that we can with any plausibility imagine." The fossils "if they were not the shells of fishes, will be nothing but the sportings of Nature, as some do finely fancy, or the effects of Nature idely mocking herself, which seems contrary to her gravity." Posthumous Works, p. 318.