land, land into sea, mountains into plains and plains into mountains; that most places where fossil plants or animals have been found have lain under water, "either by the departing of the water to another part or side of the earth, by the alteration of the centre of gravity of the whole bulk, which is not impossible;[1] or rather by the eruption of some kind of subterraneous fires, or earthquakes whereby great quantities of earth have then been raised above the former level of those parts"; that not improbably the tops of the highest mountains in the world have been under water, these elevations of the land having most probably been the effects of some very great earthquake; that the greatest part of the inequalities of the earth's surface may have been caused by "the subversion and tumbling thereof by some preceding earthquakes"; that "there have been many other species of creatures in former ages, of which we can find none at present; and that 'tis not unlikely also but that there may be

[1] The possible change of the earth's centre of gravity is fully discussed by Hooke in several discourses. A passage in which the idea is expressed gives a vivid picture of the philosopher's prescient outlook in terrestrial physics. He conceives that a very great earthquake (using that word for any kind of displacement of the terrestrial crust) might not impossibly alter the centre of gravity and also the axis of rotation. He thinks that the diurnal rotation and annual revolution of the globe may once have been made in a much shorter time than now, so that a day and a year at the beginning of the world would not have been so long as now when these motions have become slower. He further suggests that "the fluid medium in which the earth moves, may after a thousand revolutions, a little retard and slaken that motion, and if so, then a longer space of time will pass while it makes its revolution now than it did at first." *Op. cit.* p. 322.