

He laid down for the first time some of the fundamental principles of stratigraphy. He recognised the predominant influence of running water in carving out the inequalities on the surface of the land. It is true that he had no clearer notions than had obtained for so many centuries regarding the true nature of volcanic action, which he still regarded as due to the subterranean combustion of carbonaceous substances. He was hampered too by the prevailing theological doctrine that the earth could not be more than some 6000 years old, and that the fossiliferous strata had been mainly deposited during or since Noah's Deluge. But his name must be enrolled high in the list of those who by careful observation and deduction helped to lay the foundations of modern geology.

Another illustrious observer in the geological domain appeared in Italy when Steno, in his twenty-fifth year, was rapidly rising into fame as an anatomist. Antonio Vallisneri (1661-1730) became professor of medicine in Padua. In the course of his journeys he had opportunities of seeing much of the geology of his native country and of forming a clearer conception of the fossiliferous formations of the great central mountain-chain than anyone had done before him. He looked upon the shells in the rocks as remains of mollusks that once undoubtedly lived in the sea. In criticising the cosmological hypothesis of Woodward (to be afterwards alluded to), he showed how the Italian marine formations extend not only throughout the peninsula but over a large part of Europe, and he inferred that there was a time when the sea covered the whole surface of the globe. He believed that it