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of nature, or as mineral forms, or if they really were the remains of animals and plants that had once lived, and had been brought by the Flood or some other catastrophe into their present position.

The world-famed artist and architect, Leonardo da Vinci (1452-1519), took part in the discussion. He had in his youth been engaged as an engineer in the construction of canals in North Italy, and had then seen numerous fossils in position in the rocks. The opinions he formed regarding them are remarkable for their clearness and correctness. Leonardo said that the marine organisms scattered in the earth in the form of fossils had actually lived where we now find them. The sea at that time covered the mountains of North Italy: the river-mud brought to the sea from Alpine lands filled the shells of dead mussels or snails, and accumulated on the sea-floor; afterwards the mud deposits became dry land, and the fossils found in them were the casts of the ancient cells. He ridiculed, as absurd and unscientific, the idea that such perfect models of living organisms could have taken origin in the rocks under hypothetical creative influences of the stars.

The Neapolitan, Alessandro degli Alessandri (1461-1523), mentions petrified conchylia in the Calabrian mountains, and ascribes their presence to an inundation of the continent by the ocean, caused by some exceptional catastrophe, or by a change in the axis of rotation of the earth.

Fracastoro,<sup>1</sup> in the year 1517, gave clear expression to his convictions about fossils, which were in accordance with those of Leonardo da Vinci. During the building of the citadel of San Felice in Verona, the workers found fossil mussels in the rocks and laid them before Fracastoro, begging him to explain the marvel. Fracastoro repudiated the doctrine of a *vis plastica* in the earth as impossible; and just as little did he give credence to the view that explained fossils as creatures left by the great Flood. The Flood, he said, was of short duration, and in the nature of things it would have left not marine but fresh-water mussels behind; further, on the assumption that the mussels had been carried from the ocean to the land by the Flood, their remains would have been scattered over the

<sup>1</sup> Hieronymus Fracastoro, born at Verona in 1483, studied at Padua, and became Professor of Philosophy there in 1502; afterwards practised medicine as a physician in Verona, and in his capacity of physician to Pope Paul III. was a member of the Council of Trent. He died in 1553.