

that fossils were existence of pest marine life *in situ*. Giralamo Fracastoro published his opinion that fossils could not have been the result of the Biblical Flood. Many scientists were persecuted, and a few burned at the stake, for holding similar opinions. A Swiss scholar, Konrad von Gesner (AD. 1516-1565), the author of the first illustrated and descriptive work dealing with fossils, believed that fossils were imitations of organisms rather than actual organic remains.

In the Seventeenth Century, Nicolaus Steno (A.D. 1638-1687), a Danish bishop, physician, and professor of anatomy, dissected sharks, compared their teeth to the "tongue-stones" which were believed to have fallen from heaven during the dark of the moon, and proved that the "tongue-stones" were actually the teeth of fossil sharks. Martin Lister, famous English physician, did not believe that fossils had ever been part of any animal, but preferred to consider them as "cocklelike stones." Robert Plot (A.D. 1640-1696), an English naturalist, was of the opinion that fossils may have been created as "ornaments" for the interior of the earth, and that they had no other significance. Edward Lhuys (A.D. 1660-1709), Plot's successor and the author of a large illustrated catalogue of English fossils, concluded that fossils may have originated from spore-bearing vapors which were derived from the sea, which carried with them the seeds of animal life, and which condensed and fell to the earth's crust, there to develop in the earth to form fossils.

In the late eighteenth and early nineteenth centuries paleontology became firmly established as a science. The organic origin of fossils was generally accepted.

3. The Geologic Time Scale

"The study of fossils is actually a subdivision of historical geology -- the history of the earth and its inhabitants as it is recorded in the rocks of the earth's crust. The earth historian, like the historian dealing with the development of civilization, must have same method of relating important events to each other. For this purpose the geologist has developed a special time scale consisting of large and small units of geologic time. . . .

"in constructing this time scale and naming its units, geologists developed another subdivision of historical geology, namely, stratigraphy. Stratigraphy is concerned with the composition, arrangement, and correlation of the rock layers of the earth's crust. The arrangement of these layers in an orderly sequence is based upon the law of superposition. This law states that in a normal sequence of beds, younger rocks are always found on top of older rocks, since that was the original order of their deposition. What this means, of course, is that in order to read earth history from its beginning we must read from the bottom of the scale upward.

"When the geologist speaks of the geologic column he means the total succession of rocks, from the oldest to the most recent, that are found in the entire earth or in a given area. . . .

"The geologic time scale is composed of named intervals of geologic time, during which similarly named groups of rocks were deposited in the geologic column. As noted earlier, these time units are used to refer to events that have taken place in the geologic past. Unlike