

Birth of life junior

The majority of scientists think that life on Earth originated in two fundamental stages: initially organic molecules formed from inorganic ones and subsequently they joined together to form the first living cells.

In 1936, the Soviet scientist Oparin explained that the so-called “molecules of life”, that is, the nucleic acids DNA and RNA, and proteins could have been created from the hydrogen, ammonia, methane and water vapour present on the newly formed Earth.

The first molecules formed in the oceans and only subsequently they aggregated creating bigger and more complex molecules until what is called the “primeval soup” was originated. In fact, it is probable that it was in the seas, which reached very high temperatures, that this dense, boiling “soup” made up of organic particles was found.

Nothing was similar to what it is today, not the continents, nor the oceans, nor the atmosphere. At that time, the atmosphere was crossed by electric discharges and by the ultraviolet rays of the Sun. By means of chemical reactions, these phenomena transformed the substances present into macromolecules capable of reproducing themselves and feeding. Life was born!

Scientists think that the transformation from unicellular organisms to pluricellular ones occurred very quickly, since the first fossils of complex organisms were already abundant six hundred million years ago. Exactly six hundred million years ago the Precambrian era ended and the Paleozoic era began. We have a reliable fossil record of this period, when life existed only in the sea. Subsequently, algae made their first attempts at colonising dry land. When the first plants appeared on land, the first herbivores appeared too, some of which then became carnivores.