The Origin of Life on Planet Earth

by Jim Schicatano

The earliest evidence of life on planet Earth may date as far back as 3.85 billion years ago.¹ At that time the first simple, single-celled organisms called "prokaryotes" may have appeared. The exact scientific process that led to the creation of prokaryotic life still eludes scientists today. Whether these early organisms metabolized energy through the process of photosynthesis (utilizing light) or by another method, such as chemosynthesis (utilizing chemicals), is also unknown.

The origin of life on planet Earth has long baffled the scientific community. Although many theories have been proposed, there is no consensus as to how life first originated on the Earth. Science believes that the Earth's early atmosphere consisted of gasses such as methane, hydrogen, ammonia, and steam. These gasses may have combined with electrical discharge from lightning (other energy sources are also possible) to produce organic compounds. Organic compounds, which include amino acids, are recognized as the building-blocks of life.

Scientists acknowledge that even simple single-celled organisms are far more complex than the organic compounds that could have been formed from the pre-biotic conditions of ancient Earth. Yet, the origin of life is believed to have begun from some similar natural process and progressed through many steps over the span of millions of years, until the first singled-celled life was created.

There are many scientific problems with this scenario, but the timing involved may prove most problematic. Before 3.8 billion years ago scientists believe that the Earth's surface was still in a state of considerable upheaval, as the last of the nebular debris bombarded the Earth. The appearance of life at that time is puzzling to many scientists, since it is not believed that the precursors of life could have survived such an inhospitable environment. Yet, life managed to make its appearance at the conclusion of that turbulent time and survive. This allows an almost a negligible time-frame for the building-blocks of life to progress naturally into living organisms.

The natural processes that scientists have theorized to explain the origin of life are far too complex to be explained here. But from a Biblical perspective all of these theories contradict the Biblical Genesis. If life can only propagate "according to their kinds" as proclaimed by the Bible, it would be unacceptable to embrace the concept of life arising from non-living matter. Even if the change occurring within each individual step of the transformation was so minuscule and so gradual that such steps could be argued as acceptable Biblical propagations, the overall transformation from lifeless matter to living creatures over time cannot be accepted.

We are seemingly in a contradiction between the Bible's claims and the theories of science. Science proclaims that life originated on our world through natural processes; the Bible declares that life can only originate from God. Although the contradiction between the two cannot be bridged by any other acceptable translation of the Creation Story, it must be noted that no scientific theory on the origin of life has proven conclusive, nor has any been accepted as a standard model.

This is not to suggest that the science offered on this subject is illegitimate. There are numerous problems when attempting to reconstruct the natural processes that initiated life. In many ways, this is very different from dating fossils or unlocking the secrets of plate tectonics. Fossils are tangible, and the process of dating their age is accepted science. Once the age of the fossil is determined, its place in the Earth's history is also known. And we can see plate tectonics in action today in many places in the world. The various fault lines visible on land, and the spreading of the sea floor along the mid-Atlantic ridge definitively support this theory. In contrast, merely duplicating the conditions of the early Earth is, in itself, significantly more complicated than either of the previous examples.

The problem is that the further back in time we travel into the Earth's history, the more alien our world becomes. The atmosphere and temperature of the Earth, the composition of the oceans, and even the energy received from the sun have all changed over time. Any attempt to recreate the processes that led to life must take into account those unique conditions. In addition, the chemistry and biology employed here is extremely complex, operating at the sub-cellular level. The functions and capabilities of amino acids and nucleic acids are only partially known to us. There is much to be learned about them even in the form they exist today; four billion years ago their structure and functions may have been greatly different. Even if most of the science were understood, there is always the possibility that some essential piece of the natural process is missing - forever lost in that ancient world. If that scenario is true - and there is a distinct possibility that it is - then the origin of life on Earth may never be duplicated in a laboratory or completely explained.

Although the origin of life remains a mystery, the slow transformation of non-living materials into simple life may still have transpired. Most scientists are convinced that some type of natural process — as opposed to a divine intervention — must still be accepted as factual, notwithstanding the lack of any standard model. Many believe that given enough time, more money, and additional research, the natural process that brought life to our world will someday be understood by science and, perhaps, duplicated by man. In any event, it would be wrong at this point for Creationists to reject the concept of a natural genesis; it has simply not been disproved.

Until such a natural process is proven conclusively, or at the very least, survives the scrutiny of the scientific method, we cannot reject a divine origin of life either. It is possible that the essential missing pieces of the natural-process puzzle are lost forever because they are of divine origin. Until we are able to prove otherwise, it is acceptable to believe that only the God of the Bible is capable of creating life.

NOTE:

Older, not Better," Discover, April 1997, p.20.