

beings were there to see it. Thirdly, although scientists can suggest possible answers to the question of how vegetative life began, the theoretical problem is both difficult and extremely complex. Many hypotheses have been proposed. All of them have their problems, and as a result there is no standard theoretical "model" for the origin of life.

Nevertheless, there have been some impressive experiments performed in the laboratory. Graduating high school and college students often have the impression that these experiments demonstrate that life evolved "naturally" by random chance on the planet Earth.

In fact, primordial life has not been created in the test tube. Science has not come close to creating initial life. It is true that amino acids (the building blocks of protein) have been created from organic and inorganic compounds, and there have been some other impressive experimental results. But those who think science has come even reasonably close to solving the problem of the creation of initial life simply do not understand the problem.



FIGURE 6.6.

Leaf impressions of the extinct fern-like plant *Callipteris conferta* from the Hermit Shale. (From *Geology Illustrated* by John S. Shelton. W.H. Freeman and Co. Copyright © 1966.)

FIGURE 6.7.

Reconstruction of a coal-forming forest of the Pennsylvanian period. (Courtesy Field Museum of Natural History, Chicago.)

