Lecture 2
Origins of Life, Mysteries and Certainties

By now you know that this course is attempting what may seem impossible. You may have never in your life been confronted with anything as presumptuous as the idea of finding overall meaning in the latest scientific information about our planet and finding that it does not clash with the Bible.

Of course, this is all in the realm not of absolute faith but of sanctified interpretation. But the exciting thing is that it just might be true. Meanwhile, if we are interpreting the Bible wrongly there is no value in defending that misunderstanding. Suppose the Bible does not really say a certain thing. But we think it does. To defend the Bible well, are we being fair to it, if we insist that it says things which are contrary to what would appear to be scientific fact? If, say, there are two possible meanings and one accords with widely accepted science, why choose to defend the one that clashes?

The most recent estimate I have heard—rehearsing what was said in the last lesson—is that the universe burst into existence 13.6 billion years ago, and that after expanding for 9.1 billion years, the planet earth came into existence 4.5 billion years ago. Less certain is the idea that the first glimmers of life appeared on earth exactly 4 billion years ago, since tiny forms of life do not leave behind bones or shells.

Mystery 1: Matter
In any case, science presents us with a deep mystery: how did the universe, our galaxy (one of billions of others), our solar system, and our planet come into existence? All of this, which existed previous to the appearance of life, is a huge mysterious bundle of fathomless complexity that includes matter, forces, and radiation.

What has been called matter is made up of what are called molecules which in turn are structured composites of smaller entities called atoms, which in turn appear to be something like tiny little solar systems, that is, each with a nucleus whirled about by a number of electrons corresponding to the number of protons in the nucleus. But even the nucleus of an atom contains almost unimaginably complex realities with protons and neutrons passing quarks between them, etc. These atoms themselves have been arranged in a number of different ways, each called a Periodic Table of the Elements, in an orderly manner from the very smallest, hydrogen with one whirling electron, Helium with two, Lithium with three, Aluminum with 13, Oxygen, for example, has 16 in now more than one orbit layer, Lead has 82, Uranium has 92, etc.

Most of these atoms don't exist in isolation but, as I say, in structured clusters, thousands of them forming rocks, crystals, snow flakes, water, air, etc. This entire reality is called the inorganic universe. It is astoundingly intricate. Its tiny structures constitute Mystery Number One.

Mystery 2: Life
Even more puzzling is a second mysterious reality called life, which has thus far been discovered only on our planet. This entire equally complex phenomenon is actually a play on a single atom, carbon. That is, all forms of life consist of elaborations and combinations which include the atom carbon.

Size is important. If a virus were the size of a baseball, a bacterium would be the size of the pitcher's mound, a cell would be the size of the entire baseball diamond and a parasite might be as large as the entire city. However, even the smallest of these four, the virus, is sometimes built out of as many as ten million atoms.

The comparatively large and enormously more complex cell is still so small that you could put 200,000 cells on top of the period at the end of a sentence and still not quite cover it up.
As small as cells are (200,000 on top of a period), each contains in its nucleus a DNA molecule that consists of a double helix structure that is both complex and beautiful and both long and thin. Every cell on top of that period contains deep down in its nucleus a DNA molecule that if stretched out would be five feet long, and yet is so slender that it can be folded, coiled up and compacted into the nucleus of a cell. Yet even a very small virus still may contain strands of DNA which it injects after attacking a cell.

Viruses, note, are cleverly destructive. They are something like bombs which attach themselves to cells, jamming pieces of DNA inside which mass produce more viruses of the same type until the cell bursts and dies. As for the much larger bacteria, some are destructive but most are not. Parasites are by definition destructive and are so large that by comparison their intelligence is enormous. The Hair Worm, for example, burrows into a grasshopper, devours everything but the minimum necessary ability to hop. At the end it creates proteins that mimic the grasshopper’s brain cells, which in turn induce the grasshopper to jump into water where it dies and the Hair Worm swims away to breed. It is very hard to believe anything as intelligent as this could have fallen together as the result of random mutations. It is equally clear that we are dealing with intelligence that is evil not just good intelligence.

**Mystery 3: Human Life**

While life is thought to have been under development for a total of four billion years, the vast majority of all fossil discoveries, as mentioned, derive from just the last 500 million years, following the Cambrian Explosion. Note that if the whole 4 billion-year period of the development of life is compared to a 24-hour day, the last 500 million years since the Cambrian Explosion is one eighth, or a three-hour period beginning at 9 PM, while the human period is roughly the last quarter of a second. Even if the last 500 million years is compared to 24 hours, the human period is still only the last 2 seconds.

Interestingly, far more bones and shells have been uncovered in the past 20 years than perhaps in all previous history. In fact, digging up bones and ancient artifacts has become a global activity of thousands of scholars, accompanied by looters and falsifiers.

Cave drawings and arrowheads tell us a great deal about how very intelligent some earlier forms of life were. We are well acquainted, for example, with the capabilities of the Neanderthals, who are nevertheless today confirmed as pre-human due to recent DNA testing.

**The Appearance of Humans**

However, nothing accomplished by earlier forms of life is as impressive as evidences beginning about 11,000 years ago of deliberate, determined, patient, intelligent selective breeding of both plants and animals.

Worldwide, today, what we usually eat without appropriate gratitude—rice, corn, wheat, potatoes, etc.—are plants which give mute witness to the fact that thousands of years ago some highly intelligent forms of life—apparently of unique intelligence—worked for lengthy periods of time to achieve very extensive genetic modification of plants that were virtually inedible to begin with, but which are now quite friendly to humans.

Also about 11,000 years ago, these same uniquely intelligent forms of life began carefully and skillfully breeding wolves into the 235 different species of dogs which today in multiple ways are close friends and benefactors of human beings.

It must be added that all of the most ancient evidences of human-like creatures are, along with the rest of nature, shockingly violent and vicious—in fact, cannibals.

Some paleohistorians today feel that the appearance of this kind of radically superior intelligence even if violent and carnivorous is more significant in determining the first appearance of true humans than the study of fossil bones. Thus, I want to suggest for discussion two ideas: 1) that the time when humans first appeared can be detected from the first evidence of the intelligence necessary for the genetic alteration of plants and animals, and 2) that all of this may all have occurred before Adam.

Adam, we are told, is a human distinctively created in the image of God which could at least mean as God intended, that is, for example, non-carnivorous. It is not until later in Genesis that Adam’s lineage is described as reverting to carnivorous behavior, following his fall and the breakdown of the Edenic New Beginning.

In any case, the clear implication is that the rampant, destructive violence observable all throughout nature was a perversion of God’s original intent and design. Eden, in that light, would then have been a New Beginning which was a re-creation of that revealed
original intent, just as Isaiah 11 describes the lion lying down with the lamb in the ultimate triumph of God’s intent—once again in the form of non-carnivorous and non-violent life.

Mystery 4: An Intelligent Counterforce

It is important to recognize the full extent of the distortion of nature by an active, intelligent counterforce, and the need for those defending God’s glory today to deal seriously with the continuous and now contemporary worldwide assault by the microbiological world on both animal and human life.

This kind of recognition, this apparently belated insight, would seem to be essential to any truly serious mobilization of believers to fight back against the origins of disease. This defines a larger concept of mission and is my primary concern.

Unless and until that recognition is more widespread, we are confined and restricted to a gospel which concentrates almost solely on individuals gaining assurance about getting into the next world and merely staying out of trouble until then. In this common understanding of the Christian life there is no war going on. Worse still, many thinking people are honestly wondering how a loving and all-powerful God can both create, and put up with or condone the pervasive violence and suffering and sickness in this world. Is God expecting our help?

In any case, the puzzle which both theologians and scientists face regarding the specific process of the creation of life is made drastically more complicated, as I say, by this additional and strange factor, namely, the evidence of a counterforce to whatever might seem to be beautiful and good. One of the least mentioned and yet unavoidable characteristics of nature is the absolutely pervasive evidence of a counterforce distorting, degrading, and destroying all that is good, pitting animal against animal and human against human, and in addition pulling down all forms of animal and human life by means of deadly viruses, bacteria, and ominously clever parasites.

Curiously, those who commendably urge the recognition of Intelligent Design in nature do not seem to notice that such recognition creates a new problem: that of people assuming that violence in nature is due to the work of God rather than Satan. By contrast, Darwin pondered the strangeness of an omnipotent God of love and the apparently gratuitous death of his little niece, the premature death of his father, and the rampant violence and suffering throughout nature. His resulting proposal of a purely natural, and random evolution was in one sense his method of absolving God of blame for the evident evil in nature. It might have been easier had he seriously considered the existence of the factor of intelligent evil opposition to God. Intelligent Design people need to recognize the existence of both good and evil design, or they malign God the Creator.

We can plainly see this virulent evil in the earliest remains of hominids, humanoids, or modern humans who perversely and pervasively portray homicidal behavior—the sort of thing bluntly described in Genesis. We also see evil in the omnipresent evidence of destructive disease. If divine intent is reflected in the re-creation that may be described in Genesis, as well as the final situation described in Isa. 6 and 11 (in which the lion will lie down with the lamb), we can readily recognize that nature-as-we-know-it is clearly not the way a loving, powerful divine being would have intended it.

However, if dangerous wolves can be altered genetically through selective breeding over a lengthy period of time, so, you would think, could man-eating tigers. That procedure would seem to be better than either of the two main alternatives we have at present—either to kill or cage. I have read that there are only 5,000 tigers remaining in the wild, while in the U.S. as temporary pets there are another 10,000. I say temporary because treating wolves or tigers in a friendly way does not change their DNA. Nor, apparently, can either animals or humans become herbivorous just by being fed plant life.

The often overlooked genetic distortion that has already happened would seem clearly to be a more serious problem than can be coped with either through behavioral or nutritional modification. Patient, multi-generational selective breeding can make a difference but is a process which is clumsy compared to gene splicing. Original sin in this light could be what resulted from genetic distortion. This may be why despite the power of the Gospel to transform lives humans still have seemingly indelible inclinations to sin, as Paul testifies in Romans 7.
Mysteries 5 and 6
In later lessons we will take up the curious emergence of high civilizations which seem to be succeeded by less sophisticated civilizations, which is Mystery 5, and the most significant mystery of all, Mystery 6, which is what Paul called a mystery, the Abrahamic plan for the reconquest of all creation. That is essentially the story of the rest of the Bible and history beyond the Bible.