

How God Reveals Himself Through Science: *Chemical Evolution Cannot Create Life*

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Chapter 1 Overview

In the beginning God created the heavens and the earth (Genesis 1:1, the opening statement of the Bible).

It is the thesis of this booklet that a living God created the universe in such a manner that it clearly reveals that He did so. If this is the case, then since science is the detailed, organized study of the creation, the data of science should point us towards a Creator God. This is not commonly taught in science classrooms or textbooks today. However, it appears that this is due more to personal bias than an accurate evaluation of the evidence. Most people have never heard the things to be presented here. As a result, they have no awareness of the strength of the arguments. The concepts are relatively easy to understand and they are supported by experiment. It seems that the issue is not the evidence or its quality, but rather people's willingness to hear and understand it.

This issue is important because what a person believes about the origin of life ultimately influences his entire value system. Modern attitudes are based on the concept that man is his own god. He defines his own values. Morals are relative. He is accountable only to himself and other men, not to an eternal Deity. However, if a Creator God truly is the source of life, then the modern attitudes are wrong. Worse, they are offensive to a God with the power to create a galaxy out of nothing. Offending Him needlessly is foolish.

This booklet is founded on three observations:

1) Natural processes under pre-life conditions work against a natural appearance of life (abiogenesis). Over the past 60 years, thousands of experiments in abiogenesis have been performed. Every one of them is a dead end. Not one of them starts with raw materials of any kind and produces new products suitable for an advance towards life. To truly represent an advance, the new products must be of the appropriate chemical structure and with sufficient purity that they can be used in a

subsequent step. This never happens in these experiments. Dead ends are characteristic.

In science, when an explanation ties together many different experimental results with no known exceptions, it becomes significant. When the explanation is also consistent with the known principles and laws of physics and chemistry, so that the experimental results are shown to be consistent with reasonable predictions, it becomes yet more significant. Furthermore, the principle of entropy is the most established principle in all of science, with no demonstrated exceptions. When the failed experiments are also shown to be due to the principle of entropy applied to a given scenario, then in truth there is no scientific basis to expect anything other than failures. This describes the situation with the experiments that have been performed in abiogenesis over the years.

There is a consistent pattern of what I call *Abiogenetic Disconnects*: Natural processes under pre-life conditions produce a broad range of products. By contrast, a natural appearance of life requires very specific products at any given point. Here is the issue: There is no connection between the principles determining which chemicals are produced in pre-life conditions to the principles determining which are required for abiogenesis. This lack of connection proves fatal to abiogenesis. Abiogenetic Disconnects show up at essentially every step of any proposed sequence of steps leading towards a natural origin of life. Every step thus represents a new potentially fatal roadblock preventing progress towards a natural appearance of life.

Abiogenetic Disconnects are actually specific applications of the principle of entropy to a particular situation (chapter 5). This booklet will review numerous experiments which will show how Abiogenetic Disconnects and hence entropy prevent advances in abiogenesis. There appears to be no true scientific basis for the faith of those who believe in a natural origin of life. This is a strong statement which flies in the face of the views of many scientists. However, I believe the evidence presented in this booklet justifies this statement, as the reader may see for himself if he works through the analysis presented.

As one example, in 1953 Stanley Miller performed the first modern experiment in abiogenesis. He placed methane, ammonia, hydrogen, and water in a chamber. Then he zapped these chemicals with a spark. Amino acids were included among a broad mixture of products. Amino acids are the building blocks of life. To this day, this experiment is touted in introductory biology textbooks as representing how natural processes are capable of producing the building block biochemicals needed for life.

In the next chapter we will look at this experiment in detail, showing how it actually revealed at least five problems, any one of which by itself could potentially stop any advance towards life. These problems were first revealed when Miller did his experiment over 60 years ago. Abiogenists are still no closer to knowing how these potentially fatal problems could be overcome in a natural setting than they were when the problems were first revealed.

Chapters 2 through 5 will discuss the details of many of the problems plaguing abiogenesis.

2) The genetic information in a cell points to an Intelligent Creator as the source of life. In chapter 4 we will see how cellular information is an abstract representation of meaning, where the meaning is defined by a coded arrangement of symbols. Abstract relationships are the domain of intelligence—normal physical processes which are based on the laws of physics and chemistry do not deal with abstract relationships. Once one understands the relationship between codes, information, translation hardware, and intelligence, it becomes simple to see how a living God is required as Creator of cellular life.

How The Creation Reveals its Creator

There is a fundamental paradox. Information science teaches (chapter 4) that a living cell must be fully-formed at its first appearance. By contrast biochemistry shows why and how natural processes cannot meet this requirement (chapters 2, 3, and 5). Yet, we do exist.

There is a rational solution to this paradox. If natural processes are inadequate to

form life, then life must have had an origin outside of natural processes—a supernatural origin. A person with a prejudiced bias against a supernatural origin will not like this conclusion. Nonetheless, in accordance with the above observations, science does teach us that an origin of life outside of natural processes is required.

Intelligence is not the only attribute of the being who created life. He must also have the power to work within the creation at the atomic level. A living cell is built from extremely large, extremely complicated molecules. A single atom placed incorrectly can frequently destroy the ability of a huge, extremely complex molecule to function properly. Yet, natural processes do not have the capability to select and position properly the individual atoms making a living cell until such a cell already exists. Therefore, the intelligent being must have the power to select and join individual atoms into a preplanned structure, that of the first living cell or groups of cells. This being is not bound by the normal laws of physics and chemistry; he is greater than them.

This solution is offensive to an atheist, who will blind himself to the strength of the evidence to avoid conclusions he detests. Yet, the evidence is clear, it is based on well-established observations, and it is not difficult to understand. Furthermore, the Bible teaches that God expects us to understand that the creation reveals Him and considers us without excuse if we reject the message. (Romans 1:18-31).

This intelligent being chose to create life at a certain point in time. Therefore, he has a will. It takes planning to create an information-driven machine, because all the fabrication steps and processes must come together in sequence and accurately. Thus, this intelligent being not only has a will, but makes plans for what he intends to do.

What do you call a being who is intelligent beyond man's ability to comprehend, is not limited in His behavior by the laws of science, has a will, and plans events? You call Him, "God." In fact, this is a simple definition of the term "personal God." God is not just an impersonal force, but a living Being with intelligence, power, and a will. He makes plans

and carries them out. The use of information in a living cell can be viewed as God's way of saying to us, "Guess what! I was here first. You are here because I made you."

You are worthy, O Lord, to receive glory and honor and power; for You created all things, and by Your will they exist and were created (Revelation 4:11).

God created man with the ability to comprehend His existence and to have a living relationship with Him. Man can understand the meaning of the words in the verse just quoted above. God also gave man a will, such that man can choose to know and worship the Creator God, can worship what the Bible calls a false god or gods, or can set himself up as his own god. Every man decides for himself the path he will take. However, there will be eternal consequences to this decision. This will be further discussed in the last two chapters.

So, this brings up the next issue: if there is a true God who is the Creator and if there are also false gods, and if we are capable of knowing and having a living relationship with the true God, then how do we know who He is or which One He is? This leads to the third observation.

3) The Bible provides a better explanation of the fossil record than does Darwinian evolution. The Bible alone does this. Darwin acknowledged that the fossil record as it existed in his day was a valid argument against his theory. He devoted an entire chapter to this issue in *The Origin of Species*. In his mind it was the only argument with validity. The problem was characteristic, systematic gaps—not links—between the various major groups in the record. His theory called for abundant links. His attempted explanation was that the fossil record was based on fossils from only a few, limited number of excavation sites, most of which were in Western Europe. He postulated that in time the gaps would disappear.

However, 150 years of new excavation has taken place since then from locations all over the world. The gaps have not disappeared. Instead, they have become even more pronounced. Most of the fossils found over the

years still fit into the same, basic, original groups, even those from remote parts of Earth. The characteristic gaps remain. Perhaps occasional gaps in an isolated region could be explained—but not the same basic gaps everywhere on the planet.

By contrast the Bible provides a foundation to understand these gaps with its discussion of the created "kinds" in Genesis 1 and of the world-wide flood of Noah's day in Genesis chapters 6 to 9. The idea is that the initial kinds were created with an initial gene pool capable of extensive specialization within the kind. By contrast successful breeding does not take place between members of different kinds. Then, the various specialists living on the earth at the time of the world-wide flood of Noah's day were buried in the layers deposited by the flood. These became the fossils observed in the strata. This accounts for the clustering of similar species and the systematic gaps between them. This will be discussed more in Chapter 6.

Of all the religious books in the world, the Bible is unique. Only the Bible opens with a declaration that its God created the universe and then proceeds with an extended description of what He did. The description provides two perspectives, first that of the creation of the universe as a whole and then creation as it related to the first man, Adam. It talks about the relationship between God and man and how man's rebellion against Him introduced sin into the world and is the root of the problems we see around us today. *This account sets the tone and foundation for everything in the Bible that follows.* It is full of detail, some of which has far reaching consequences.

For many reasons I believe that the God of the Bible is the Creator. The creation reveals His person but does not tell us how to come to Him. The Bible reveals how we can know who He is on a personal, intimate basis through His Son, the Lord Jesus Christ. Many of the reasons for believing this will be discussed in this booklet.

"God of the Gaps?"

Sometimes, evolutionists claim that arguments such as we present here have an innate logical fallacy which they call the "God

of the Gaps Fallacy.” Briefly, their argument states that primitive people have historically called on a god to fill the gap between what they see and what they understand. Thus, as science teaches us more and more, there is less and less for God to do. Science now explains things that once were attributed to God, including the origin and evolution of life.

However, there is a fatal problem with this argument. The gaps are *not* closing, they are getting bigger. It seems that every time we learn something new about the creation through science, ten times as many new questions appear. There is a characteristic common to the creation and to the Bible. Things that appear very simple at a casual glance turn out to be unbelievably complicated when looked at in detail. There is not less and less for God to do, as many like to delude themselves into believing. There is more and more.

For instance, consider protoplasm. Darwin thought that a living cell was filled with a simple, jelly-like substance called “protoplasm.” He considered it hardly worth noticing or thinking about.

By contrast, the scientific advances of modern biochemistry have revealed that a living cell is extremely organized and has complexity beyond current human comprehension. It is so complicated and so intricate that the things we know about it from science—from statistics to entropy to the laws of chemistry to the principles of information theory—teach against its natural, unguided appearance. Abiogenetic Disconnects appear wherever one looks, revealing how natural processes do not meet the needs of abiogenesis. So, in truth as we learn more about the complexities of a living cell, there is less and less that science can explain. There is more and more for God to do. The true gap is with evolutionary science, not with God.

There is no gap closing in on God. He does what He wills when He wills. He always has and He always will. He has established a natural order that we study in science. However, this order exists because in His wisdom He chose to place it there. It most certainly does not limit Him in what He determines to do or limit what He is capable of doing. The more we study

His creation, the more things we find that lead us to stand in awe of His wisdom and power. The God of the Gaps argument is only a futile attempt to discount clear evidence by those who have no answer for it, but do not want to face its implications. Word games do not make a living God disappear.

Falsifying Humanism

Often students on a university campus will refuse a free booklet such as this when they are offered it. They will comment, “I am a history major,” or “I am a political science major,” and then walk off. How unfortunate! The truth is that the material in this and subsequent chapters is just as relevant to them as it is to a biochemistry student.

Secular humanism is a philosophy built on the *assumption* that a living, personal God does not exist. A number of corollaries follow as a result of this assumption. Physical life is treated as nothing more than the end product of natural processes; therefore, a living man is considered only a momentary chance combination of chemicals and his existence stops when he dies. In such a case the only value of human life is whatever man chooses to give it at a particular time. Ultimately, though, a man has no more value than a hairbrush, a car, or a computer. Underlying this entire train of thought is the conviction that man’s own intellect is capable of independently reasoning through and understanding everything and anything worth knowing.

However, if there is indeed a living, personal God and if this God truly does intervene into the affairs of His creation, then humanism is false. God’s very existence invalidates its foundational premise. Once its foundation has been invalidated, it becomes irrelevant.

The modern university may be viewed as an attempt to apply the concepts of secular humanism to every field of study. Therefore, if humanism is a false philosophy, then much of what is taught in a modern university is false. It is not so much observed facts that are wrong—facts are facts. However, the normal emphasis in an institution of higher learning is on the *interpretation* of facts. Generally, the only

interpretations professors allow are those that are consistent with humanistic philosophy. Thus, only false interpretations of the observed data are open for discussion. Whether a student is studying political science, anthropology, history, or even the moral aspects of business, law, or medicine, the issue of humanism and its validity is relevant. This in turn makes God's existence relevant.

Affirming God's existence and His working within His creation is the primary focus of this booklet. A student interested in learning truth and not mere propaganda should consider understanding the issues discussed here as his number one priority. This applies whether he is a political science major or biology major.

An Absolute Proof of God

Both chemical evolution (abiogenesis) and Darwinian evolution deny God His glory as the Creator. As a man looks in awe at the beauty and the detailed organization of the creation, God expects this awe to result in praise and thanksgiving to Him. When a person instead rejects the Creator and attributes His handiwork to mindless, random activity, it offends Him. He states in Isaiah 48:11, "I will not give my glory to another." This is serious, because the One who is being offended is One who has the innate power, wisdom, and will to create a galaxy out of nothing. He does not get tired in the process. You do not want Him angry with the decisions you make. God has stated that He will reward us for honoring Him, but also will hold us accountable for not properly honoring Him. The Bible declares, "It is appointed for men to die once, but after this the judgment" (Hebrews 9:27).

The Bible teaches that it is possible to prove God's person and nature. However, this is judicial proof, not philosophical proof. It is impossible to prove anything to a philosopher, because his foundational assumptions are subjective and hence always debatable. Judicial proof is different—it is proof sufficient to convict in a court.

The declaration, "It is appointed for men to die once, but after this the judgment," is important. God has set a day in which each man will give an account for how he has responded to

God on this earth. Judicial proof is relevant here. In Romans 1:20 of the Bible we read, "Since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse." In other words God designed the creation for it to reveal Him, a living, personal God, as its Creator. God counts the evidence so clear that on the day of judgment, He counts people rejecting it and rejecting Him as without excuse. This is absolute judicial proof in a court of no appeal, a court whose verdict is final and eternal. A grade in a classroom or a promotion at work pale in significance to this. Understanding the things presented in this booklet should become a person's top priority.

Chapter 2

Why Natural Processes Cannot Create a Living Cell

I like to eat brownies. Brownies with ice cream are perhaps my favorite dessert. However, if one were to attempt to make brownies using one part brownie mix added to four parts concrete mix, he would never get edible brownies. This is true no matter how many billions of years he might try and retry and retry the recipe. Billions of years of repetitious effort do not compensate for bad chemistry. Billions of years of repetitious effort do not turn bad ingredients into good products. This should be obvious.

Many atheists claim that over the course of billions of years, it would be inevitable for life to form somewhere. The brownie analogy refutes this. If the laws of chemistry and physics truly work against a natural origin of life, then billions of years of repeating the same failures will never overcome the reasons for the failures.

Let's consider the kinds of chemicals needed for life. These are the chemicals that abiogenesis will need to form from suggested raw starting materials, such as ammonia, methane, cyanide, and carbon monoxide among others. There are two major kinds of biochemicals used in a living cell: *proteins* and *nucleic acids*.

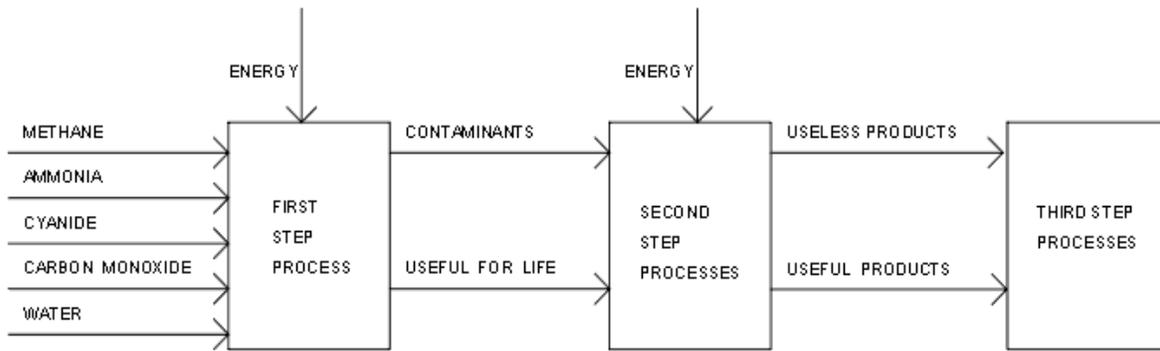
Proteins perform most of the chemical

Abiogenetic Disconnects

Abiogenetic Disconnects work against a natural origin of life. Natural processes are capable of using the chemicals available for abiogenesis and from these produce a wide range of new products, a few of which are useful towards life. Most are not. This applies to the various steps along the path. By contrast, a step towards life requires very specific chemicals of high purity, proper ratios, proper concentration, and proper handedness.

The problem is that there is no connection between the products produced and those required. The principle of entropy works so that products will tend to appear in their natural statistical likelihood of appearance. A restricted output would represent increased organization, which is contrary to entropy. Abiogenetic Disconnects are a form of entropy as applied to processes related to abiogenesis. In one form or another, Abiogenetic Disconnects appear at every proposed step of Abiogenesis. Their combined impact ultimately teaches against the possibility of a natural origin of life.

Typically, a product useful for life will tend to fall apart much quicker than it forms or can be used. RNA provides an example of this. Spontaneous decay is characteristic of entropy. The lack of connection between required stability and the natural decay rate can be viewed as yet another form of Abiogenetic Disconnects.



The above figure illustrates Abiogenetic Disconnects for the initial steps of abiogenesis. Raw chemicals such as methane, etc. are acted on with energy and form new products. Some are useful for life, the rest are contaminants. Unfortunately, the contaminants prevent the useful products from serving as adequate raw materials for the next step. There is no connection between products formed and products required. The same patterns applies throughout the remaining steps of abiogenesis. This is how entropy in the form of Abiogenetic Disconnects works against a natural origin of life.

activity within a cell. A protein is formed by combining long strings of amino acids together. A particular amino acid is used at each position in the string from among 20 different kinds available.

The other major kinds of biochemicals are called *nucleic acids*. Nucleic acids are formed by stringing together certain building block molecules called *nucleotides*, with a choice from among four kinds of nucleotides

available for each position in the string. There are two kinds of nucleic acids, RNA and DNA. RNA is formed first, it is occasionally converted into DNA for increased stability when used to store information. The genetic information tells the cell what to do.

The first step of a pre-life process will be to form what is sometimes called a “soup” of raw materials, such as amino acids and/or nucleotides. The soup needs to be pure enough for random chemical interactions between amino

acids or nucleotides to form long strings of pure protein or nucleic acids. If the soup is not pure, then the impurities will combine with the amino acids or nucleotides instead of each other and the required proteins and nucleic acids will never appear. It would be like adding so much cement mix to brownie mix that it becomes impossible to make an edible brownie.

If natural processes were to bring about the origin of life on our planet or even somewhere else, the first question is obvious, "How did it start?" In 1953 a young graduate student at the University of Chicago, Stanley Miller, performed an experiment that startled the scientific community and is still talked about to this day. He simulated an atmosphere supposedly similar to that found on the early planet Earth by placing methane, ammonia, water, and hydrogen in a closed, evacuated flask. He simulated lightning as an energy source by inducing a spark across the flask. Amino acids, which are the building blocks for the proteins found in living systems today, appeared in a trap connected below the flask.

Let's consider how Miller's experiment operates. The chemicals it starts with are methane, ammonia, water and hydrogen gas. A spark acts like a bomb and randomly rips apart any molecules it touches. The fragments produced will have a random assortment of electrical charge, plus or minus. Fragments of opposite charge will join to each other and make random new compounds. Uncharged covalent and hydrogen bonds will also form randomly as appropriate, joining uncharged fragments. As this process is repeated, any newly formed molecules contacting a spark can be ripped apart again. Eventually, the molecules shown on page 44 appear in the indicated ratios, with 6 times as much tar formed as in the listed materials.

This would obviously be a very uncontrolled process. With the random ripping apart and random recombination characteristic of Miller's Experiment, it is very easy to understand why the broad mix of chemicals shown on page 44 was formed. It is also easy to understand why these chemicals are characterized by all of the problems discussed below.

Carbon and nitrogen along with

hydrogen and oxygen are capable of forming over a million different kinds of molecules. In fact the *Beilstein Database* catalogues by number over a million carbon-based compounds and processes. Miller's experiment has the potential to create many of the molecules registered in Beilstein. When we look at the wide mix of chemicals produced in the table on page 44, it makes sense for so many different kinds of molecules to be produced. This is what we should expect. Prediction and experimental observation agree.

We should expect that occasionally and on an incidental basis, chemicals such as amino acids which are relatively easy to form will appear. We should also rarely if ever expect to find nucleotides, which are extremely difficult to form. Again, prediction and experiment agree and confirm each other. Nucleotides have never appeared in a simple, pre-life like experiment unless there is also human intervention. Amino acids can and do, even without intervention.

Proteins can never be formed by spontaneous combinations using chemicals such as those shown in the Table. Just because amino acids appear on an incidental basis does not mean that they appear in a useful mix. It is amazing how chemical evolutionists do not seem to comprehend this. Yet, it chemistry at its most basic level.

The kinds of chemical reactions available under pre-life conditions will always produce a complex mix of products, with too many contaminants for successful abiogenesis. Changing the energy source from a spark to a high energy ultra-violet light photon or even to a hot water source does not change the underlying process. The energy acts like a bomb, randomly destroying whatever it touches. Changing the raw source chemicals does not change the process. Neither does changing the operating temperature or the acidity of the solution. The Beilstein Database is the goal of pre-life chemical processes, not abiogenesis.

It is easy to understand that if random collisions between molecules are going to combine into long strings of amino acids or nucleotides, an extremely pure source of these will be required. The problem is that there is no connection between the broad range of products

naturally produced and the purity required for abiogenesis. *Abiogenetic Disconnects* refers to this lack of connection.

The appearance of amino acids in Miller's trap excited scientists and laymen alike; Miller apparently discovered a feasible starting point for chemical evolution. His experiment seemed to open up all kinds of scenarios as possibilities for a natural origin of life, free from the creative efforts of a Supernatural Being. It is difficult to find an introductory biology textbook that says anything about origin-of-life issues and does not still describe this experiment and its significance. We now understand that this excitement was premature.

Six Big Problems

Miller's experiment represents a first stage process. It is noteworthy that neither Miller's experiment nor any other of the many of variations on it have ever produced the desired target soup of usable building block molecules. Instead, they all share in common the following six problems. Any one of these is fully capable of thwarting a natural origin of life unless it can be resolved or overcome. After more than sixty years of effort, there has been no progress towards this for any of them, except possibly the first. In abiogenesis, existing known problems do not get solved. Instead we see yet new ones constantly appearing.

1. Origin-of-life processes require an untypical initial assortment of raw materials. Something seldom discussed except by creationists is that even from the beginning, Miller's experiment represented intelligent intervention into natural order. Miller's graduate advisor Harold Urey, a Nobel prize-winning Ph.D., thought that a reducing atmosphere such as found on Jupiter and the other large planets, might have been suitable for the origin of life. (Miller *S et al.* 2004). However, Jupiter has about 300 times as much hydrogen as methane, twelve times as much methane as ammonia, and fifteen times as much ammonia as water.

As a trained chemist Miller knew that this ratio of raw chemicals would not produce the amino acids he was seeking, so he used his understanding of chemistry to change the ratios.

When he selected the actual chemicals used in the experiment, he used a chemically ideal ratio: mostly water, approximately equal amounts of methane and ammonia, and only 1/30 the amount of hydrogen as methane (Johnson A, et al. 2008). The ratios between the various molecules Miller used in his experiment and the ratios found on Jupiter, his starting point, were totally unrelated to each other. If he had copied the actual Jupiter atmosphere, the experiment would have failed. He assumed the earth had ideal ratios and chose those. This is presumptuous.

The composition of the initial raw materials that appear on a planet will be in accordance with various random astronomical and terrestrial factors that have nothing to do with the requirements for abiogenesis. Chemical evolution requires specific initial components in useful concentrations and in useful ratios with each other. Miller demonstrated this when he had to alter the ratio of the chemicals in his experiment from that of Jupiter to get his experiment to work. No planet or moon has ever been observed which has raw materials suitable for abiogenesis.

One would expect there to have been significant progress in the quality of product produced by pre-life experiments since Miller first performed his in 1953. However, progress has gone backwards. In 1996 Miller made the following statement about his original experiment of 1953, "The surprise of the experiment was the very large yield of amino acids. We would have been happy if we got traces of amino acids, but we got around 4%. *Incidentally, this is probably the biggest yield of any similar prebiotic experiment conducted since then*". (Henahan. 1996). (Italicization was added for emphasis). There had been no improvement after 43 years of effort. There still hasn't.

How is it that Miller's original experiment has given the highest product yield of any similar experiment since his first attempt? It has to do with the choice of assumed raw materials. Miller assumed that the original atmosphere of the earth had equal amounts of methane and ammonia. If this ratio changes, the yield goes down. He also included more

hydrogen than today seems realistic. If the hydrogen concentration is reduced in the raw gasses to more realistic values, then the yields from the experiment decrease significantly. Therefore, no one has improved on the results of Miller's first experiment. The products formed might differ depending on the initial raw materials and the environmental conditions used in subsequent experiments. However, they would always be more dilute than those of Miller in 1953. This shows just how critical it is to have suitable initial chemicals.

Abiogenetic Disconnects first appears at this, the very first step of chemical evolution. There is no principle of geology or chemistry to constrain the composition of the initial raw materials appearing on a planet or moon to match those suitable for life. There is a disconnect between natural products and required products.

2. Origin-of-life processes innately produce more contaminants than useful product. The table on page 44 shows that Miller made almost four times as many contaminants as amino acids. For our purposes a contaminant is defined as any chemical not actually used in a particular, desired chemical reaction, but which can interfere with it in some manner and thus prevent it from taking place. This means that the particular building-block molecules necessary for one desired sequence of operations could become contaminants and ruinous for other sequences. If the goal is to get amino acids to string together and form a protein, then any products (or even initial raw materials) which can interact and interfere with the growing chain are contaminants.

This is an important observation: the excessive contaminants are produced as a result of the basic laws of nature. They show up in all of the attempted pre-life experiments. There are no natural workarounds to avoid them. There is a disconnect between the kinds chemicals naturally produced by natural processes and the kinds required for chemical evolution. Abiogenetic Disconnects shows itself again.

As a result, a product yield such as what we see in Table 1 is exactly what we should

predict for any pre-life scenario: The products are produced according to their probability of formation at any instant, not according to the needs of abiogenesis. Simply changing energy sources or the kinds of raw materials will not change the nature of the results. Realistically, if Miller had used Jupiter's ratio of 12 times as much methane as ammonia instead of equal amounts, the ratio of contaminants to amino acids would have been far worse.

The overwhelming concentration of contaminants dominates future steps. It absolutely prevents the amino acids from ever assembling into proteins. It is like adding four times as much cement mix as brownie mix to brownie batter. Good brownies will never be produced. Repeating a bad recipe over and over does not compensate for bad chemistry. It is amazing how many supposedly intelligent scientists do not grasp this.

In truth the discussion stops here. The laws of chemistry will **always** work to provide too many contaminants for any of the desirable components occasionally produced to combine into anything useful. This assertion is confirmed by hundreds of experiments. Because theory and a broad range of experiments agree, we should accept it at face value. Because of the extensive experimentation backing up this conclusion, theoretical arguments alone are no longer adequate or relevant. A person rejecting this conclusion needs to demonstrate clearly an experiment which produces the required molecules in the required purity or he needs to demonstrate experimentally a purification process which appears naturally—all without human aid or interference. There is no basis to assume such process exists.

We will see in the next chapter that Leslie Orgel, Ph.D., one of the leading abiogenists in history and one of the fathers of the RNA-world hypothesis, eventually came to much the same conclusion. In the last paragraph of his last journal article, he stated that the gap must be closed that exists between the complex products supplied by pre-life initial processes and the required purity to make complex enzymes. Otherwise, abiogenesis would not be possible. Furthermore, he was not impressed by what he had seen of efforts to close the gap. He

compared those efforts to “If pigs could fly...” logic.

Although the disconnect between products produced by initial processes and products required by subsequent processes is sufficient in itself to make a natural origin of life impossible, we continue the discussion just because there is so much more to talk about. This one observation is sufficient to make abiogenesis impossible, yet it barely scratches the surface of the problems. Abiogenists need to deal with this honestly.

3. Origin-of-life processes do not provide multiply-required products in useful ratios. Amino acids are used to make proteins, including enzymes used to control chemical processes in the body. Proteins have very complicated three-dimensional shapes that control their activity. The twenty amino acids coded for in DNA have a number of varying characteristics between them—whether they are attracted to water molecules or repelled by them, whether they have a positive, negative, or neutral electrical charge, whether they are large or small, and whether they make sulfur bonds or not (sulfur bonds are much stronger than other bonds).

Of these characteristics, the most important is its attraction to water molecules. A typical protein needs an approximately equal number of water-attracting and water-repelling amino acids. This ratio is necessary in order to form a required shape. However, since water-repelling amino acids much are easier to make than those that are water-attracting, Miller’s experiment produced 100 times as many of them. Table 1. shows this. This ratio is not even close to the approximately equal numbers required. Unfortunately for chemical evolution, though, the naturally occurring ratio would make it statistically impossible to string together useful enzymes using random processes.

From the perspective of chemical evolution, *there is nothing to constrain the factors which determine the ratios of the various products formed to provide ratios suitable for abiogenesis.* This means mismatches such as the above should be the expected norm. The relative ratios between the various chemicals

produced will always be based on how easy they are to form from the immediately available chemicals and the results will in general be unrelated to their usage requirement for chemical evolution. The disconnect between the products naturally produced and the requirements of abiogenesis has appeared again. This is another issue sufficient in itself to stop chemical evolution dead in its tracks.

4. Chirality: Origin-of-life processes make products without regard to required “handedness.” Amino acids exist in two different forms. These two forms are mirror images of each other. For convenience they are called “left-handed” and “right-handed.” This is another serious issue. The problem is that for proteins and nucleic acids to form their proper shapes, they need all their constituent molecules to be either left-handed or right-handed. Mixing both kinds of handedness together in a string forces proteins and nucleic acids into useless shapes. Since Miller’s and similar experiments produce products by randomly joining available molecules to each other, they inherently produce equal portions of both left-handed and right-handed molecules. This is a serious problem. Chemists first noticed this issue 150 years ago. Current journal articles still recognize its seriousness and are still trying to figure out how evolutionary processes could overcome the problem.

Notice, the disconnect appears yet again. Natural processes randomly make both mirror-image forms. Abiogenesis requires consistency of left-handed or right-handed forms to make the required shapes of proteins and nucleic acids.

5. Origin-of-life processes make more tar than anything else. Tar is the normal product of experiments that simulate pre-life conditions. For instance, the primary product of Miller’s experiment was actually tar. The products reported on page 44 would actually have been destroyed by the spark or have been added to the tar glob if Miller had not added a trap to remove them from the spark chamber first.

This is important: simply leaving the power turned on and adding a continual stream of new raw materials would not have resulted in

the products of his experiment eventually providing soup needed for second stage activity. It would not have resulted in the amino acids produced assembling themselves into proteins. It would have merely resulted in a lot more tar on the walls of his equipment. Instead, the test apparatus would have become completely clogged with tar. The experiment would have reached a dead end. Professors and authors understand this problem very well. They choose to ignore it. For instance, few if any textbooks mentioning Miller's experiment talk about how his main product was tar. None talk about how the same problem exists with all of the various origin-of-life experiments that have been tried.

The chemicals of life have a natural tendency to make tar. This is a problem at every stage of development and continues with living cells today. Fortunately, modern cells have an elaborate maintenance system to rid themselves of tar before the tar destroys them. However, we first come across tar at the very first step and never truly get away from it—not even within our own bodies. Tar is a serious problem.

6. Origin-of-life processes do not provide essential products in adequate concentration. Another major problem concerns the amount of useful product created. Shortly after Miller first published the results of his experiment, scientists speculated that the oceans of the earth could have once been a “soup” of biological building block molecules working towards the formation of life. Then, a more careful analysis showed that the earth's entire atmosphere would not be capable of supplying enough raw materials to turn the world's oceans into a useful soup. As scientists became more realistic in their expectations, the potential size of the soup kept shrinking in volume. Now it doesn't actually appear to have existed anywhere.

Current opinion is that natural processes are incapable of directly producing a high enough concentration of the products required for abiogenesis. Therefore, some means of concentrating the products is required. For instance, we read, “Even in the most optimistic assessments of the sources for pre-life organic molecules, whether originating extra-terrestrially or on the earth, the oceans and the large bodies

of water existing three to four billion years ago would have been extremely dilute. Therefore, mechanisms for selecting and concentrating the essential biomolecules are required” (Hazen 2010).

The bottom line is that there is no connection between the factors determining the concentration of chemicals required for the appearance of life and that which natural processes tend to provide.

There is a second factor working against a useful concentration of the products produced. We have already discussed how pre-life chemical processes inherently produce a wide variety of products. By simple mathematics this means that no particular product will have a very high concentration. I find it intriguing to consider various journal articles that show all of the varied molecules that can be formed by pre-life processes and then talk as if this were an advantage. They appear to have the attitude, “With this many possibilities, surely something available will be effective.” In truth a wide range of products is a serious disadvantage, not only because of contamination interference by all of the unused products, but also because of the resulting low concentration of any particular variants desired.

As an illustration of this situation, Benner provides a diagram that shows the overwhelming complexity of products possible in just a few steps starting with simple raw source molecules. He thought this was good. I think it is bad. Entropy would prevent any single one of these from forming preferentially over the others as to allow it to become a concentrated building-block molecule useful in a path towards life. Just because it is needed or useful is irrelevant. There is no principle of science to form preferentially the ones needed, apart from the activity of an already living cell. Benner's diagram is available free online and worth looking at. (Benner et al. 2010. FIG 10).

Clay

Many abiogenists believe that life started on clay crystals as a concentrating mechanism. This may work in a lab, but there are problems in a real-life setting. Clay in a lake sweeps out pollutants. It would do the same for the chemicals of abiogenesis. The following is

an excerpt from an article I wrote about this (Stout T. 2013):

“It has been observed that there is a natural influx of suspended clay particles into a lake. As these particles drift throughout the lake, various pollutants in the lake adhere to the particles’ surfaces. Then, as the particles settle and are buried by sediment, the pollutants are buried along with the particles. The influx of clay particles effectively “sweeps” the lake free of pollutants and buries them, at which point they no longer interact with the environment. A clear example of this has been reported for Lake Michigan. Portions of the lake are surrounded by large urban populations which introduce into it significant quantities of man-made pollutants. Yet, Eadie (1997) reported that 95% of the pollutants have been observed to be removed by this sedimentation process, over the course of a few years”

Perhaps this explains the results of the following experiment.

Soap Scum?

David Deamer is one of the world’s leading scientists in the study of abiogenesis. He is a co-editor of a Cold Springs Harbor Laboratories collection on abiogenesis which features nineteen articles summarizing current abiogenesis research (Deamer D and Szostak J. 2010). He and his colleagues performed a unique experiment that gave completely unexpected results.

Various observations have led one camp of biochemists to propose that life might have emerged in hot, thermal vents in the ocean or hot geothermal sites inland. Their ideas have traditionally been simulated with experiments done in a laboratory setting.

Deamer and his team decided to go to a volcanic hot spring, add some amino acids, nucleotides, fats, glycerol, and phosphate to the water, and see what happened. They would supply the raw materials of an idealized soup based on their skills as biochemists. The team was surprised. They had not expected what happened. Some quotes:

“Most of the added organics and phosphate were removed from solution with half-times measured in minutes to a few hours.”

“A white scum appeared in the Kamchatka pool within minutes of adding the organic mixture. The precipitate is probably a mixed iron and aluminium soap, which would remove the fatty acid as a potential reactant.”

“The phosphate and added amino acids were below detectable limits in minutes to hours....”

“The observation that organic compounds were below detection limits so rapidly was surprising.”

“It is significant that most of the clay mineral apparently bound the added solutes” [this shows how well clay binds biochemicals].

“...The origin of life in a natural setting would have had a variety of possible fates other than those observed in a laboratory setting, where pure compounds react in glass containers” (Deamer D. et al. 2006).

The last three quotes taken together represent perhaps the greatest significance of the entire experiment. Deamer is one of the foremost biochemists in the world. Yet he was still unprepared for how much harsher a natural environment was than a laboratory setting. In so many words he effectively acknowledged that there can be all kinds of unexpected glitches that would be capable of thwarting abiogenesis in a true-to-life setting that do not appear in a lab, although he was more discrete in his wording. This is particularly significant when one considers that even with all of the advantages of a “laboratory setting, where pure compounds react in glass containers,” naturally occurring roadblocks have so far thwarted every effort to provide a clear, successful demonstration of an advance in abiogenesis at any stage. Yet, in the wild we should expect significantly worse results than observed in a laboratory, even as the experiment demonstrated.

It is intriguing to do a journal search for articles discussing the potential role of clay in abiogenesis. There are very many. It is

humorous to see that many of them discuss how well biomolecules join to clay. This merely insures that when the clay settles out and is buried as sediment, the biomolecules will be also.

PNAS

Just how big an issue is the low concentration produced by first step processes? A few years ago the National Academy of Sciences ran a series of articles on Abiogenesis in their *Proceedings*. One of them started with this statement: “Mineral surfaces were important during the emergence of life on Earth because the assembly of the necessary complex biomolecules by random collisions in dilute aqueous solutions is implausible” (Parsons *et al.* 1998). *The Proceedings of the National Academy of Sciences* is one of the most prestigious science journals in America. In this opening sentence of a certain feature article, they acknowledge that the problems facing abiogenesis are so severe that a natural origin of life is not believable in an open solution. The only hope seems that clay might have a sufficient concentrating effect to overcome the problem.

From my personal perspective, they have just acknowledged the severity of the obstacles facing abiogenesis. Yet, their proposed solution would appear to be ineffective. We have just seen how in a real life scenario, clay removes chemicals from activity; it does not concentrate them. Their proposed solution would remove existing biochemicals, making the problem of too low a concentration worse.

RNA

RNA nucleotides, the building blocks of RNA, have never been fabricated in the lab using a realistic pre-life process. Currently, the best hope for possibly doing this is with what has been called the “one pot approach by John Sutherland (Powner *et al.* 2009). Sutherland spent 14 years tinkering with it before he finally stumbled onto a workable process for it to make nucleotides, although it finally did. However, Benner pointed out that Sutherland’s scenario is not realistic, requiring too much human intervention to make it work and to prevent the production of tar as the major product (Benner *S*

et al. 2012). Human intervention is nothing more than a scientist constraining a process to give required results for abiogenesis when nature doesn’t constrain it.

Abiogenists like to act as if the problems we have looked at are isolated. They just “put them on the back burner” until a solution comes forth. If the problems were actually isolated from each other, this might be acceptable, even if the back burner is rather crowded. However, the “failed results” of the experiments are actually consistent with expectations from normal chemical behavior. The experiments are not failures in the sense that they confirm the validity of the normal laws of chemical reactions. The only “failure” is that normal chemistry does not meet the needs of abiogenesis.

There is no basis for putting these problems on the back burner. No experiment starts at any one step, does it successfully and then without human intervention proceeds into the next. Furthermore, we understand the reasons they don’t. It is time to say that enough is enough. Abiogenetic Disconnects provides a unifying factor for the problems. This changes the situation. Science now provides a sound reason why natural processes are incapable of forming life—Abiogenetic Disconnects. This needs to be dealt with honestly.

“You are worthy, O Lord, to receive glory and honor and power; for You created all things, and by Your will they exist and were created” (The Bible, Revelation 4:1).

Chapter 3 Middle-Stage Problems

It is in the hypothetical second or middle stage of abiogenesis that the building block amino acids and nucleotides formed in the first stage combine into useful chemicals. The ultimate goal of this stage is to provide a replicating system of large, complex molecules capable of evolving through mutation and natural selection. In the preceding chapter we looked at how the products of a first-stage process, as represented by Miller’s experiment, do not provide products useful for this stage.

There are too many contaminants, ratios are wrong, the desired chemicals are of too low concentration, etc.

The reality of these problems is illustrated by the procedure scientists use to study middle-stage issues. They never start with the products of a first-stage process such as Miller's experiment, although in a natural setting *this would be all that was available*. Instead, they go to a chemical supply house and purchase the exact chemicals needed for a particular test, with laboratory-grade purity, in an exact concentration, and in the proper relative ratios. Yet, despite this advantage over a realistic pre-life assortment of chemicals, their experiments still fail to produce products suitable for a subsequent step.

Of course, chemical supply houses did not exist on the pre-life earth. Abiogenists typically justify using chemical supply houses for their supplies, claiming that it speeds up the process. The inference is that if Miller's experiment were repeated enough times, it would eventually supply the desired soup of pure building block molecules in the right concentrations. They don't seem to understand that bad chemistry will always produce bad products. Miller's experiment will produce its characteristic broad mix of products no matter how many times it is repeated or how the raw chemicals might be varied from run to run. Cement mix added to brownie mix never makes good brownies. Abiogenetic Disconnects prevent first-stage processes from ever forming products that would meet the input requirements of the middle-stage steps.

When one looks at the results of the experiments performed at the middle stage, he finds Abiogenetic Disconnects at work again. The problems listed below are representative; there are many others. They all are a manifestation of Abiogenetic Defects.

Problem 1. The Great Divide. An interesting article appeared fairly recently in BioScience magazine, which is published by the American Institute of Biological Sciences. Melissa Lee Phillips wrote a feature article titled, "The Origins Divide: Reconciling Views on How Life Began" (Phillips M. 2010). Although the title speaks of reconciling the various divergent

views on the origin of life, in truth there was little if any reconciliation in the article. It offered a history of our understanding of abiogenesis. Whenever someone would offer a proposal regarding any facet of abiogenesis, there would soon be someone else giving sound reasons against its viability. This situation continues until the present. Apart from a statement at the end of the article expressing a hope of success because of Sutherland's approach in forming RNA, the article could well have been written by a creationist, documenting known problems. Of course, we have already seen that Benner pointed out how Sutherland's approach still requires human intervention at certain critical steps.

Here are a few quotes from the opening paragraphs: "Deep divides in opinion are found in almost all areas of origin-of-life research." "If we're going to make any progress, we really have to be critically honest about what we don't know.... And that's just about everything." "The questions surrounding life's origins are indeed vast and, for the most part, unanswered." Then, she mentions the large macromolecules which are so critical to the functioning of living organisms and comments, "In modern life, all of these molecules and processes are so intertwined that it's difficult to imagine how any of them could have arisen without the others already in place. Chicken-and-egg problems abound."

The major divide is between those who believe in metabolism first or information first (proteins first or RNA first). Sadly, which side a person takes seems to be the one which he believes has the fewest arguments preventing it. Neither side shows experimentally a working sequence of steps to implement their choice. Somehow, when a person takes a particular position because it has the fewest fatal obstacles preventing its success, it seems he has left science.

Problem 2. Amino acids preferentially break apart, not join together. Proteins need to form in water in order to get their proper shape. Their shape determines their chemical action. However, when two amino acids join, a water molecule is released. In an aqueous environment, the natural action is for water to split joined amino acids, not for separated amino

acids to join and release a water molecule to the already high concentration of water. So, the normal chemical reaction—splitting—is opposite of that required for life—joining.

Various attempts are made by abiogenists to work around this. Typically, this is by increasing the concentration of amino acids by evaporation or by causing them to adhere to a clay surface. Both proposed solutions have problems.

Evaporation is an unstable process, dependent on widely varying geological and weather conditions. It is unrealistic to expect this to be a consistent, reliable process for the millions of years required for abiogenesis. RNA is particularly sensitive to decay. Under some conditions it lasts only days before it falls apart. It would not take much of an extended dry period to permanently undo any progress. In general one should expect varying climatic conditions to occasionally produce an excessive dry time. This is a significant potential natural barrier against the effectiveness of wetting and drying cycles as they occur in nature as a required process for RNA.

Clay presents a different set of problems. Typically, there will be more clay surface than biochemicals. In the previous chapter we saw how seasonal mud flows into a lake tend to bury all organic molecules. Buried organic molecules do not interact, so burial would prove fatal to abiogenesis. We also saw how Deamer ran into this problem headlong when he performed an abiogenesis experiment in a natural hot spring. The mud adsorbed all of his chemicals almost instantly.

Concentrating a solution because it is inherently too dilute does not appear to be a practical solution for a real-to-life scenario.

Problem 3. Side Chains. The utility of amino acids comes from their ability to join together to form proteins, which are long strings of typically 100 to 1,000 amino acids chained together. In order for a string to form properly, the amino acids must join end to end. It then folds into various combinations of coils and sheets and in the process takes on the shape of a specific protein. The shape determines its activity.

However, the end of an amino acid can

just as easily connect to the side of another amino acid, forming what is called a side chain. Side chains force a string into a new shape, thus destroying its ability to function properly.

A living cell uses a ribosome and a group of supporting molecules to force the amino acids to join together properly. This is a cumbersome process, requiring many complicated components. However, it has been observed experimentally that without a ribosome, long strands of amino acids in solution do not form spontaneously and the joining that does take place is characterized by multiple side chains. This is because of the normal laws of chemistry. It is not solved by blindly repeating the process over and over.

A ribosome is an extremely complicated molecule. It also requires a controlled energy source for its operation. It depends on a group of support molecules such as transfer RNAs and synthetases for its operation. It is also an information-driven component; it cannot function properly without information from messenger RNA being fed to it. So, a living cell has access to and uses an extremely complex system of components and information to constrain amino acids to join together with the proper structure and the proper sequence to form a protein. Pre-life, free amino acids in solution do not have the proper constraints to get the proper results. As a result, in a free solution the natural behavior is contrary to that required for life. There is a disconnect between the products needed for life and the products normally produced by pre-life chemical activity.

Problem 4. Enzyme specificity. Here is a conundrum. Giri *et al* said, “Large molecules such as proteins and nucleic acids are crucial for life, yet their primordial origin remains a major puzzle. The production of large molecules, as we know it today, requires good catalysts, and the only good catalysts we know that can accomplish this task consist of large molecules. Thus the origin of large molecules is a chicken and egg problem in chemistry” (Giri *V et al.* 2012).

Giri *et al* proceeded to develop a computer simulation of a proposed solution. However, simulations are nothing more than hypothetical speculation unless they are

simulating experimentally confirmed results and the factors which affect them. Theirs weren't.

The true problem is that one needs to have these results appear as a continuation of Miller's experiment or the equivalent without any human tinkering. We have never come close to doing this, yet this would be only the second step of a long journey.

The problem of getting large molecules was discussed by the late Leslie Orgel in his final journal article, published in 2008. Orgel was a giant in abiogenesis. He was one of the few people to see the Watson-Crick DNA model in 1953 before the journal *Nature* announced the model to the world. He wrote journal articles in chemistry for over 50 years before passing away in 2007. He had a unique understanding of abiogenesis, that of one who had lived it from its beginnings until his recent death over 50 years later. He was head of the Chemical Evolution Laboratory at Scripps Institute in San Diego, California, one of the premier laboratories of the world in his field. He shared an office with Crick for many years at Scripps. He and Crick were the fathers of the RNA World hypothesis. At the time of his death, Orgel was not impressed with the state of abiogenetic chemistry.

The final paragraph of Orgel's final journal article is significant. Basically, he acknowledges the validity and seriousness of the problems we have been discussing. He says in a somewhat cryptic statement,

"The prebiotic syntheses that have been investigated experimentally almost always lead to complex mixtures. Proposed polymer replication schemes are unlikely to succeed except with reasonably pure input polymers. No solution to the origin-of-life problem will be possible until the gap between the two kinds of chemistry is closed....Solutions offered by supporters of geneticist or metabolist scenarios that are dependent upon 'if pigs could fly hypothetical chemistry' are unlikely to help."

The "prebiotic syntheses" he is talking about are first stage processes, such as Miller's experiment. These are the ones that supply the raw materials for use in building the molecules

used for replication. The "complex mixtures" are represented by the broad products we saw in Table 1 on page 44, where natural processes make many more contaminants than required products. "Proposed polymer replication schemes" would be the processes at work in this stage that would provide the ability to copy large proteins and RNA. So, Orgel is saying that the proposed second stage schemes are unlikely to succeed unless they can start with reasonably pure chemicals. (Four times as many contaminants as working stock is not reasonably pure. Of course, even when the proposed processes do start with pure chemicals they haven't been able to demonstrate a single successful, significant step of progress. Obviously, starting with extremely contaminated products would make it that much harder.)

His next comment, about "no solution," is particularly significant. Paraphrasing, he says that unless the gap is closed between the products of stage 1 and the requirements of stage 2, abiogenesis is not possible. This is a major statement. Notice—the gap Orgel is talking about is the one between the products of Miller's experiment and the purity required for abiogenesis. Miller's experiment will never produce the required purity of molecules. Thus, one of the most qualified abiogenists in history has effectively acknowledged that abiogenesis as it now stands in the light of experimental evidence is impossible. In the ellipses he mentions a few things people are attempting in order to purify the stage 1 products. However, these have been tried for many decades without success.

His final statement is most revealing of all. Whether a person believes in "information first" or "metabolism first" doesn't matter. If a person's theoretical scheme of abiogenesis depends on hypothetical chemistry that violates known chemical principles, then it doesn't help much in solving the origin-of-life problem. It is the equivalent of starting a statement, "If pigs could fly, then" Everything that follows is nonsense, because pigs can't fly.

Compare Miller's experiment with Watson and Crick's model of the structure of DNA. Both date to 1953. The DNA model has been extremely fruitful; it provided the

foundation for most of the developments of modern biochemistry. By contrast Miller's experiment initially got hopes up for many people that man could now explain how he got here without calling on a Creator God. Yet, 60 years later, no true advances have been made toward this. However, a stream of new problems that potentially thwart success have been discovered.

Orgel has indirectly summarized this 60 years of effort as nothing more than "if pigs could fly" logic. Every one of the problems that first showed up in Miller's original experiment are still fatal, making a natural origin of life impossible. Of course, these problems are merely the product of the normal laws of chemistry; there is a reason they still persist. This is not much to show for 60 years of effort. If one looks carefully at the issues that concerned Orgel, they can be traced back to two words: "Abiogenetic Disconnects"

If the Bible is true, if God did create the universe including the life that is in it for it to reveal itself to be the handiwork of a living, personal, Creator God, then Orgel's observation is just what we should expect.

Problem 5. Statistical Probabilities. There is another problem, the astronomical odds against getting a required sequence of amino acids or nucleotides at the time and the place that they are needed in order to perform a specific job. Evolutionists seem to be obsessed with the conviction that if a specific enzyme is needed for a function, then just wait a few years and mutations and natural selection will provide it.

This is contrary to the laws of statistics. A Googol is the number "1" followed by 100 zeroes. It is so big that changing its value by plus or minus ten billion does not show up until its 90th significant figure.

In an article posted on the web (Stout T, 2014) I show that a Googol *years* is not long enough to form randomly an enzyme of 167 amino acids under extremely idealized, theoretical conditions. An enzyme of 267 amino acids would be diluter than this by yet another Googol. Every 100 additional amino acids in an enzyme reduces the likelihood by yet another Googol.

What is the significance of this? It takes energy to do the various functions of a cell. Cells typically use a molecule called "ATP" as little packets of energy. Every kind of cell using oxygen to burn fuel converts the fuel into ATP molecules using what is called the "Krebs cycle." For every atom of oxygen used to burn a sugar or fat molecule supplying fuel for the Krebs cycle, two molecules of ATP are produced. Unlike typical random energy sources, these tiny power packets are just right for biochemicals: weak enough not to damage the products being worked on and powerful enough to accomplish a task. The cycle requires eight different enzymes. Missing any one of them is fatal to proper cycle operation. These enzymes are huge in size.

Let's look at just 4 of them. One of them, called *malate dehydrogenase*, is made from over 300 amino acids. It is going to be hard to produce this through random processes. Another, called *citrate synthase*, uses 437. In life, these two enzymes are used in equal numbers. By contrast, a random sequence is more than a Googol times more likely to generate *malate dehydrogenase* than *citrate synthase*. These are the easy ones. By contrast, *Succinyl CoA Synthetase* is made from two identical strings of 693 amino acids each. This will be hard to get. However, that is simple compared to *Succinate Dehydrogenase* which is over 1,100 amino acids. To get the Krebs cycle to work, all of these enzymes plus others need to be attached to a wall of some sort next to each other in sequence. This provides an "assembly line" for processing the steps. Many such assembly lines are required for each cell. A serious problem is that an emerging system needs a reliable energy source from its earliest steps. The extreme complexity of the enzymes that bothered Orgel in his final article were the ones needed early in abiogenesis. His concern was legitimate.

There is a reason for the appearance of so many amino acids in these enzymes. Orgel explained in the main body of his final article that highly specific enzyme activity is required for the cycle to function properly. Small enzymes cannot provide the required specificity. Therefore, extremely large ones are required.

When one considers that the human body has over 10,000 different enzymes averaging over 400 amino acids apiece, the complexity of life becomes staggering. Yet, these enzymes are merely building blocks for a cell, such as construction supplies at a lumber yard are for a house. The true complexity is in putting them together properly. How to represent the instructions to do this by a sequence of nucleotides is beyond current human comprehension.

Evolutionists such as Dawkins in his book the Blind Watchmaker (Dawkins 1988) propose a process called cumulative selection as a way around the statistical problem. However, cumulative selection does not work, because natural selection cannot choose between the better of two options when both fail. Natural selection cannot choose which of two sequences of amino acids functions most effectively as succinate dehydrogenase until at least one of them already does. Therefore, the first appearance of a required enzyme needs to take place in a single-step at the right place and the right time in the proper quantity. Dawkins process of cumulative selection works fine with computer simulations with computer programs tailored to produce the desired results. It doesn't apply to the realities of life. The astronomical odds against forming a required group of nucleotides or amino acids represent an extreme example of Abiogenetic Disconnects.

Problem 6. Replication. Replication refers to copying a cell or molecule. It is one of the basic characteristics of life. I will be brief in discussing the problems associated with replication. A cell uses a cast of cooperating enzymes to replicate successfully. A pre-life process attempting replication without the required enzymes will have a difficult time succeeding.

A living cell assembles free nucleotides in solution to form strands of RNA. This is done by an enzyme or combination of enzymes adding a specifically required nucleotide one at a time to a forming string according to a sequence defined by a template. Proteins in a cell used to do this properly are typically over 400 amino acids long. There is a lot of experimental effort taking place in this field, but nothing is close to

providing what is needed. Nothing is even close to demonstrating that what is needed would be possible in a pre-life scenario. Most of the discussion about this is theoretical. Here are a few problems that are discussed in the literature. They may be viewed as yet more instances of Abiogenetic Disconnects.

1. RNA has a very short lifetime, typically from hours to days, depending on temperature and other factors. Any interruption longer than this in the supply of RNA nucleotides as nutrients to an ongoing copying operation could result in all of the key RNA molecules disintegrating during the delay, thus causing any progress to be lost.

2. Johnston *et al* (2001) developed a 176-nucleotide RNA molecule capable of copying strings of RNA. It spontaneously disintegrates while copying strings longer than about 14 nucleotides. It would disintegrate before it could copy less than 10% of itself. It has not been improved upon significantly over the past 13 years.

3. "Parasites" have been observed with experiments studying replicators taken from already living cells. Parasites are molecules which do not make a useful contribution to cellular activity, but get copied by the replicator, consuming nutrient nucleotides in the process. Parasites can be small molecules. Small molecules are generally more active than larger ones, so replicators will tend to preferentially copy them. Eventually, the parasites starve the system, progress stops, and natural decay destroys everything.

"I am the LORD, that is My name; and My glory
I will not give to another..." (Isaiah 42:8).

Chapter 4 Information: God's Signature Written in a Cell

It does not take a deep technical background to follow the arguments of this chapter. Yet, they are decisive. They make a natural origin of life impossible. Anyone willing to take the effort to work through the next seven pages should be able to understand why.

Living cells are information-driven machines. This single observation does away with the possibility of an evolutionary origin of life. Information-driven machines consist of two complementary components: a body of information stored in a medium and hardware to read the medium and use the information; the information controls the operation of the hardware. In the case of a living cell, the information also defines and controls how the hardware is manufactured.

A computer provides another example of an information-driven machine. The computer's hardware requires and is completely dependent upon working software (information) for its proper function. The hardware is useless without working software. Likewise, the software is completely dependent upon working hardware for it to be used. The software cannot accomplish anything without hardware to read it and act on it. For instance, I can hold in my hand a CD ROM with a software program stored on it. This program cannot function on its own; it needs appropriate hardware to read it and interpret it in order for it to do anything. Both the hardware and the information controlling it are dependent on the presence of the other in fully working condition; neither has value without the other.

Thus, both hardware and software must make their first appearance simultaneously in already working form. This requirement is the heart of the argument. By definition this is not evolution. The requirement of a simultaneous first appearance of both hardware and the information controlling it is characteristic of information-driven machines in general.

Since a cell is also an information-driven machine, it follows the same pattern. The physical components of a cell that are needed to

process and use cellular information have no value unless the associated information is present. Likewise, the information has no value unless the physical cellular components used to process the information are present. Both need to function properly. Both need to make a simultaneous first appearance. The tiny, gradual steps of progress which define evolution are not capable of producing a cell.

There is an added level of difficulty concerning a living cell. The instructions on how to make the various physical components to read the information are only found in the cell's information. So, the parts needed to read the information cannot be made using the information until the parts already exist. This entire system is much, much too complex to appear spontaneously through natural processes alone in a sudden step. Indeed, the entire purpose of evolutionary theory is to reduce the size of steps needed to produce major changes to individual steps of insignificant size.

A major issue concerns the minimum amount of information required to build a minimal cell capable of self sustenance. The amount appears to be staggering. For instance, 160,000 nucleotide base pairs are used in the DNA to define the genetic content (genome) of a certain parasite. However this parasite cannot sustain independent life on such few base pairs; it is dependent on its host to perform certain functions it cannot. It cannot do these because its genome is not large enough to contain the information required to do them. (Nakabachi A. et al. 2006).

An atheistic scientist is faced with a set of severe problems. 160,000 base pairs represent far too much information to show up correctly in a single, random step. The atheist must either give up the laws of statistics, must acknowledge that science points to a Creator God, or must justify how a much smaller number, one which is statistically probable, could specify the minimum number of base pairs required to define a working cell capable of sustaining an independent existence. Realistically, the maximum number of base pairs that could be reasonably expected to be generated through random processes in a single step would be well under 100. The difference in difficulty between

assembling 100 base pairs randomly and 160,000 base pairs randomly is staggering. For one who believes in a Creator, the discrepancy between 100 and 160,000 base pairs reveals the greatness of God's power and wisdom. Science becomes a tool for us to marvel more and more at God's wisdom and power.

Evolution theoretically advances by taking a working system, making slight changes to the information defining it, and then using natural selection to give reproduction preference to whichever alternative has the better reproduction value over its competition. However, this concept requires an already working system before it has value. Natural selection cannot select between the better of two failures. This statement is foundational to our entire argument. It precludes the possibility of converting a random assortment of data symbols into a large body of coherent information by the small steps which characterize evolution by definition.

Since natural selection cannot select between the better of two failures, it is powerless to generate the first appearance of the code required in an information-driven system. This in turn means that evolutionary processes are powerless to create the first living cell.

Coded Information: a Product of Intelligent Thought

The kind of information used in a cell may be classified as coded symbolic information. Coded symbolic information is information in which an abstract meaning is represented by a sequence of symbols arranged according to a code. The DNA nucleotides (sometimes called *codons* by biologists) function as the storage medium for the information stored in a living cell.

An intelligent mind can assign meaning to things it understands. It can then invent a code to represent this meaning. Information is the coded representation of meaning. The concept of *meaning* is extremely broad, essentially limited only by the intelligence and experience of the one inventing the code. The laws of physics are not dependent on the intelligence of the objects acted on by these laws. By contrast, the levels of meaning and the sophistication of codes to

represent the meaning are dependent on the intelligence of the one inventing and implementing them. This establishes coded information as the domain of intelligence, one outside of the normal laws of physics and chemistry.

As an illustration of a simple form of information, consider the cardinal numbers 1, 2, 3, etc. These can be represented by ink shapes on a sheet of paper, by sounds such as spoken in any of the languages on our planet, or by any other set of symbols a person chooses to invent. A person could even invent a code to represent a limited quantity of numbers by certain smells if he chose to do so. Notice, there is absolutely no relationship between the physical structure representing the meaning and the meaning itself. The only relationship is in the mind of an intelligent being.

However, *meaning* is not limited just to simple things like cardinal numbers. Poets can have very subtle shades of insight into the experiences of a living human being that go beyond normal words to express. Such insight is a product of intelligence. The poet then expresses these insights with symbols on a sheet of paper. The meaning can then be communicated to other intelligent beings, even though in the case of artistic works, effective communication is also dependent on the observer's intelligence and background. There are no principles of physics or chemistry which quantify the insights of a sensitive poet, even though the medium—words on a sheet of paper—is a physical entity which can be studied.

Einstein learned and discovered new concepts of relativity and gravity and then invented a way to express these concepts using words and symbols; their expression represents information. The meaning of the symbols he used is far beyond my capacity to understand. That is because information is a product of intelligence and I do not have the intelligence or the training to understand the information Einstein created. To me his information has no meaning; I do not have the capacity to understand either his meaning or the significance of how he coded the meaning. To one with the proper intelligence and training, the information Einstein gave us is full of meaning.

Therefore, the formation of codes to represent meaning is an intellectual function. This in turn requires an information-driven machine to be designed and built by an intelligent being. **Humans can design and build computers. It takes a living Creator God to design and build a living cell.**

The code used in a living cell is extremely complicated. A person can easily access a discussion of the genetic code from a source such as Wikipedia, and study the “triplet” coding used to associate a sequence of nucleotides with a sequence of amino acids. However, that is only the trivial part of the code. Embedded within the genetic information of a cell are all kinds of control sequences that scientists are only just beginning to understand.

Natural selection is powerless to “invent” codes, particularly a code as sophisticated as what we are finding in the genetic control system of living cells.

The issues go beyond this. It takes a certain degree of intelligence to invent a code to represent meaning, such as the number 2 written on a sheet of paper to represent 2 objects. People living in relatively primitive societies can do this.

It takes yet more intelligence to invent a machine capable of translating coded information into controlling the behavior of objects in the physical world. For example, it is possible intellectually to design a computer program to perform certain tasks. Various codes can represent in a digital format the operations to be performed, the expression of data to be manipulated, and the definition of anticipated results (i.e., print a certain character). It takes yet greater intelligence to design a translation system, i.e. a means to translate the codified arrangement of symbols into physical actions to implement the code. Translation systems are beyond the capabilities of a primitive society. They are the product of an industrial society. It was only as recently as the 1800s that information translation systems first appeared, as exemplified by Babbage’s invention of calculating machines using memory, control programs, control hardware, and data input and output hardware. See the Wikipedia article on Charles Babbage for more information.

If a person reads the science journals, he finds that those scientists trying to give an evolutionary explanation for cellular information and a translation system to use it have hit a “brick wall” head on. Scientists do not have the slightest clues about the origins of the genetic code or the origins of the translation system needed to implement it. They still haven’t deciphered the control mechanism embedded within the code.

The translation system of a cell consists of the equipment to extract information from DNA, feed it to a ribosome, and assemble amino acids into enzymes. Wolf and Koonan made a concerted effort to figure out how this might have happened. This is their conclusion:

“The origin of the translation system is, arguably, the central and the hardest problem in all evolutionary biology. The problem has a clear catch-22 aspect: high translation fidelity hardly can be achieved without a complex, highly evolved set of RNAs and proteins but an elaborate protein machinery could not evolve without an accurate translation system.” (Wolf W. and Koonin E. 2007, Abstract).

“...the fundamental problem we wish to address here: the origin of the translation system and the genetic code. Indeed, the translation system might appear to be the epitome of irreducible complexity because, although some elaborations of this machinery could be readily explainable by incremental evolution, the emergence of the basic principle of translation is not. Indeed, we are unaware of translation being possible without the involvement of ribosomes, the complete sets of tRNA and aminoacyl-tRNA synthetases (aaRS), and (at least for translation to occur at a reasonable rate and frequency) several translation factors. In other words, staggering complexity is inherent even in the minimally functional translation system...”

“Even this does not do the full justice to the difficulty of the problem. The origin of translation appears to be truly unique among all innovations in the history of life in that it involves the invention of a basic and highly

non-trivial molecular –biological principle, the encoding of amino acid sequences in the sequences of nucleic acid bases via the triplet code [15,16]. This principle, although simple and elegant once implemented, is not immediately dictated by any known physics or chemistry (unlike, say, the Watson-Crick complementarity) and seems to be the utmost innovation of biological evolution (Wolf W. and Koonin E. 2007, p.2).

All Wolf and Koonin can do is marvel at the wisdom shown in the elegance and inherent simplicity of the genetic code and the hardware to read and use it. To them it represents the utmost innovation of evolution. They certainly cannot explain how natural processes could have produced it.

Their observation that there is no known physics or chemistry to produce the triplet code provides yet another instance of Abiogenetic Disconnects.

However, I would disagree with them on one account. There is something in a cell far more innovative than this. We have already mentioned it: it is how a cell uses stored information to control when the various cellular components get built, control how many of them are built, and control how they are used. Coded control information is used to regulate how a cell puts the pieces together and operates. The code defining how to do this represents a level of innovation and complexity far beyond that of the simple triplet code. Scientists have not even begun to figure out how natural processes could *invent* and *implement* a code of this complexity. The reason is simple: Coding is a product of intelligence, not physics.

Science reveals to us all manner of difficulties that block a spontaneous, evolutionary origin of life. It does not give us reasons for believing a natural origin is possible. After 60 years of efforts, the findings of the modern field of abiogenesis are completely consistent with creationism. **Those who continue to believe chemical evolution do so because of personal philosophical convictions, not because of the testimony of science.**

Since a living cell is an information-driven machine, the first appearance of the cell must

have every single one of the following cellular components working satisfactorily:

1. A medium capable of storing coded information.
2. A huge body of debugged coded information stored in the cellular medium, requiring perhaps a minimum of 100,000 base pairs.
3. The entire translation system for extracting and using the information.
4. An energy system such as ATP for supplying energy to cell components.
5. A fuel source to drive the energy system (photosynthesis or the means to use external sources of nutrients).
6. A waste removal system.
7. A cell membrane.
8. A cell replication System.

With the exception of replication, if any one of these systems does not function properly, none of the others can either. Since replication is needed to replace dying cells, all of the above components need to appear together in working form from the beginning.

At a certain point we need to say enough is enough. The use of information to control and build the components of a cell is conclusive. It is impossible for natural processes to create living organisms such as we see around us. Thus, life had to come from a source outside of natural processes. The use of information points to an Intelligent source. This in turn points directly to a Creator God as the source of life, a God who is intelligent, has a will, and has the power to intervene into the affairs of His creation to bring into existence in a single step the living cells He designed.

Often an artist will sign his name on a painting to show that he painted it. In the same way, the information stored in the DNA of a living cell may be viewed as the signature of God showing that He is the one who placed it there.

“He has made the earth by His power, he has established the world by His wisdom, and has stretched out the heavens at His discretion” (Jeremiah 10:12).

Chapter 5. Entropy and Abiogenetic Disconnects

Abiogenetic Disconnects are a manifestation of the principle of entropy. Entropy is the principle that random changes to an organized system tend to destroy its order. By contrast, the steps of abiogenesis contradict this; each step requires random changes to produce higher degrees of organization. This should be a warning of potentially serious problems. The warning becomes validated when a person looks at the details of various experiments performed in abiogenesis over the years. They all reveal problems. Analysis shows these problems are the direct result of entropy acting on the processes. This means that the observed problems truly are problems; they are not just the result of an improperly performed experiment.

If a gallon of hot water is mixed with a gallon of ice water, the resultant temperature will be between the two original temperatures. The molecules of the hot water have more energy than the molecules of the cold water. This is an important concept: Separation of high energy molecules from low energy molecules represents organization. However, when the two gallons are mixed together, the temperature shifts to a point between the two original temperatures. As the mixture reaches a uniform temperature, the organization originally present disappears, as well as the ability for the system to do useful work.

By contrast, the molecules in a bowl of water at lukewarm temperature do not spontaneously organize themselves such that ice forms at the bottom of the bowl and steam at the top. This would represent spontaneously increased organization. Entropy provides an arrow of time. Random changes tend to destroy existing order. They do not produce new levels of organization. Time doesn't go backwards.

The water in a bowl can be turned into ice. However, this will require an external source of energy. Typically, though, this energy will need to be applied by some sort of hardware apparatus, such as a refrigerator. The kind of energy and its amount must match the requirements of the hardware apparatus, such as

120 VAC for household refrigerators. Setting off a bomb in a refrigerator supplies energy but does not produce ice, it destroys the refrigerator.

In chapter 2 we saw how Miller's experiment works by randomly ripping apart and recombining the molecules in a spark chamber. A complex mixture of chemicals is the natural result. For Miller's experiment to suddenly produce only amino acids and those in useful ratios with each other would be an organizing process, similar to ice forming spontaneously at the bottom of a bowl. Entropy prevents each from happening.

Entropy is an extremely broad principle and applies to many domains unrelated to each other. Applied to heat flow, it becomes the second law of thermodynamics. Applied to information, theory, it is useful for error recovery and efficient transmission of data. Concerning music, mistakes are random changes to an organized design. According to entropy, they will tend to destroy the organization and detract from it. I.e., mistakes sound bad.

Entropy can also be applied to abiogenesis. Here, the contrast between the complex products observed to be produced by pre-life chemistry and the purity of products necessary for life gives us Abiogenetic Disconnects. The disconnect between products produced and products required is a direct result of entropy. Entropy guarantees that the possible complex products will be produced. There is no principle of science to constrain a process such as Miller's experiment to produce a only specific selections of its normally complex output. Entropy thus guarantees the disconnects. Calling the behavior *Abiogenetic Disconnects* instead of entropy merely indicates the domain in which entropy is operating.

There is another characteristic of entropy. Sometimes, a random fluctuation can produce momentary order. For instance, if a person rolls a pair of dice enough times, he will occasionally get double sixes (or any other number for that matter) three times in a row. It is possible this could happen the first time he tries it, which would give a false appearance of

organization: double sixes appear to be preferred over other numbers. However, as the number of dice rolls increases, entropy will cause the momentary appearance of organization to disappear. Eventually, a truly random final assortment becomes more and more certain. This is entropy in action.

Many abiogenists seem to assume that if the time is long enough, these random fluctuations would be adequate to allow life to accidentally appear. This is empty philosophical rhetoric posing as science, it is not based on realistic calculations. Before talking this way, an abiogenist needs to calculate how many pages of zeroes would be in the odds against success within perhaps one hundred million years. Then, he needs to figure out how much time would actually be available before the universe dies a cold death from expansion or until a big crunch reverses the big bang. There does not appear to be enough available time for abiogenesis in any known scenario. To postulate unknown scenarios is to demonstrate that science is not the basis of beliefs, but personal bias.

Entropy not only shows itself in first-stage processes, but interferes with a natural origin of life every step of the way. It's as though God has placed a series of barriers against a natural origin, such that the first one should be fatal to the process. If it is not, then a whole string of potentially fatal scenarios provide a series of backups to insure ultimate failure. The use of coded symbolic information in the last step insures that abiogenesis cannot occur.

Biologists seem not to understand entropy very well. For instance, many biologists have a standard response to claims by creationists that a natural appearance of life is contradicted by the principle of entropy. They claim entropy only applies to a closed system. The sun adds energy to a chemical reaction towards abiogenesis and this energy can drive a system to the organization required for life.

They don't understand that without the specialized hardware and the discrete units of energy used by a living cell, useful products of life are not produced with the purity needed,

when needed, and where needed. Sunlight in a pre-life scenario, that is, one without the specialized enzymes of a living cell, will essentially function as a variant of Miller's experiment. There is no scientific basis to expect success. Sunlight energy does not automatically overcome entropy. A bomb does not turn a wagon into an automobile.

Experiments not interfered with by human intervention typically grind to a halt because of the issues we have been looking at. Usually, either nothing happens or an experiment runs for a while and then its products start turning into tar. Ideally, we should be able to start with Miller's experiment or its equivalent and then sit back with our hands in our pockets and watch abiogenesis gradually unfold before our eyes. If abiogenesis is so favored by natural processes that it can take place under harsh, randomly varying conditions in the wild and without human help, then brilliant scientists should be able to get at least one step of it to work in a controlled laboratory setting after 60 years of effort.

In summary, the problems with abiogenesis are not with an isolated experiment here and there. It is characteristic of experiments in abiogenesis as a whole. Not a single significant step of abiogenesis can be illustrated by a "hands-off" experiment which fabricates products suitable for use in a subsequent step. Of the thousands of experiments performed over the years, everyone of them demonstrates how entropy prevents ultimate success. Too many products are formed and there is nothing to restrict production to those needed. My challenge to the abiogenist: show me one experiment that has not been thwarted by entropy. You have thousands to pick from. You can't.

Chapter 6 Evolution After Chemical Evolution

It is generally accepted among scientists dedicated to the study of abiogenesis that going from the simple chemicals found on a planet without life to the complexities of a single living cell is more difficult than going from a living cell to all of the varied forms of life around us. For instance, Margulis (1996a) said, “To go from a bacterium to people is less of a step than to go from a mixture of amino acids to that bacterium.”

From this perspective, the steps of evolution proposed by Darwin in his *The Origin of Species* are the simple ones. The hard steps are those of chemical evolution, of those to get to the first cell. The thesis of this booklet has been that science itself teaches that a living God is necessary for these, the hard steps. This raises a significant question: If God is needed for the hard steps, why exclude Him from the easy ones? If God created the first living cell fully formed and in a sudden, single step, then why could He not have created higher forms of life in a single step as well?

If a person starts with false assumptions, he will come to false conclusions. Darwin believed that the Bible taught that species were fixed, meaning that God created every species exactly as we see it today. In his mind, if he could prove that species were not fixed, then he would have proven that the Biblical account of creation was false. It would be that simple to discount the Bible.

Therefore, in the opening chapter of *The Origin of Species* he shows how species can vary between generations as the result of the efforts of plant breeders and animal breeders. In the second chapter, he asserts that just as the characteristics of species can change under the influence of men, they can also change under the influence of changes in natural conditions. He demonstrated species are not fixed, but change. So, he claimed that the Biblical account was false.

Darwin was mistaken. First, he ignored the fact that there is often a tremendous amount of variation within a given species. Consider the dog as an example. If a person were to find a

fossil of a dachshund, a small, 15-pound dog with short legs, a long snout, and a long body in the fossil record and then a fossil of a large, 250 pound short-snouted English mastiff somewhere else, the two dogs would be counted as different species. Yet, we know that they are only representative examples within a single species inherently capable of extensive variation. How much variation was possible in the original plants and animals as God created them? Darwin did not have the slightest clue. *Origin* was written as a solution to a problem which was only a misunderstanding on his part.

However, the Bible actually gives us a basis for making a reasonable estimate of the answer to this question. We read, “Then God said, ‘Let the earth bring forth grass, the herb that yields seed, and the fruit tree that yields fruit according to its kind, whose seed is in itself, on the earth,’ and it was so. And the earth brought forth grass, the herb that yields seed according to its kind, and the tree that yields fruit, whose seed is in itself according to its kind. And God saw that it was good. So the evening and the morning were the third day” (Genesis 1:11-13).

The little phrase “whose seed is within itself according to its kind” is the key to properly understanding what God created. These nine words are unique to the Bible. To my knowledge, neither they *nor their equivalent* are found in any other ancient document, religious or secular. Yet, these words provide the key towards building a model which is far superior to the modern evolutionary model for understanding the characteristics of observed variation in plants and animals.

It was Darwin’s apparent ignorance of this phrase that led to his fundamental misunderstanding of the things he observed. Seed is used in the Bible as the means of reproduction. Angels do not reproduce and do not have seed. Stars do not reproduce by means of seed. Plants do. Furthermore, seed is “according to its kind.” Reproduction only takes place within a kind. Wheat does not fertilize apricot trees. Grapes do not fertilize poison ivy. Furthermore, wheat and apricot trees do not interbreed. Nor do grapes and poison ivy. Therefore, significantly, if two different forms

of plants can be bred together and produce living offspring, then they initially came from the same creation-day kind. Understanding the significance of this gives an entirely new perspective on taxonomy, which is the scientific classification of the various forms exhibited by life on earth.

Next, we read the account of animal creation in Genesis 1:25,
“And God made the beast of the earth according to its kind, cattle according to its kind, and everything that creeps on the earth according to its kind. And God saw that it was good.”

The significance of this passage is that God also made the animals in distinct groups according to various kinds. This verse does not specifically mention the seed of animals. A few verses later, though, in Genesis 7:3 the Bible does mention that animals also have reproductive seed. (Note, *zered* is the Hebrew word for seed. In Genesis 7:3 *zered* is variously translated as seed, species, offspring, descendants, etc. depending on the translation at hand. However, in the original Hebrew language of the Bible, the same Hebrew word is used for seed both in Genesis 1:11-13, referring to plants, and in Genesis 7:3, referring to animals.)

We now have a model based on the creation account of the Bible. In this model, God created various kinds of plants and animals already fully formed. We have seen that science teaches us that an initial fully-formed creation was required for the first cell. The Bible merely extends this to include large, multi-cellular animals and plants.

Each kind had within itself the innate capacity to reproduce itself by means of seed. Reproduction only takes place within a kind and not outside of it. Therefore, if two dogs can mate and produce living offspring, then according to this model they came from the same initial kind. If a dog and a wolf can mate and produce living offspring, then they came from the same creation-day kind. Likewise, if two different types of cats can reproduce with each other, they came from the same creation-day kind. However, cats and dogs do not hybridize; they do not mate with each other and produce living offspring. This means either they came from two different creation-day kinds or they came from

the same one but have diverged so far by now that interbreeding is ineffective.

This model allows for some interesting studies. For instance, if one does an internet search on the phrase, “cat hybrid,” he will find that a house cat can produce living offspring by breeding with a margay, a bobcat, and various other cats. This means that from the perspective of the model, all of them came from the same creation-day kind. Both a margay and a bobcat can breed with an ocelot and produce living offspring. An ocelot is also a part of this kind. The same results take place with an ocelot and a puma, a puma and a leopard, and a leopard and a lion or tiger. Thus, all of these cats came from the same creation-day kind. As a result, we find an unbroken succession of hybrids linking a house cat to an Asian tiger. It appears that all of the modern cats within the taxonomic classification Felidae, commonly called the cat family, originated from a single creation-day kind. This is interesting. By looking carefully at what the Bible teaches and then applying it to a study of the things we see around us, we gain a tremendous insight. The creation-day kinds were created with a huge potential variation. This is the exact opposite of what Darwin believed. His theory of evolution was presented as a solution to a problem which did not exist.

The Creation Science Research Quarterly (CSRQ) featured an article in which the author also came to the conclusion that the various cats together constituted a creation-day kind. However, this particular conclusion was based on comparing various physical characteristics, not hybridization. The various cats were far closer to each other physically than they were to their closest relatives, the hyenas and meerkats (Robinson et al, 1998).

Cats represent one family within the order Carnivora, the carnivores. Internet searches show that the pattern of potential hybridization within the cats also applies to dogs, bears, and seals.

However, the pattern is not limited to the Carnivora. It also applies to cattle and oxen. Another CSRQ article indicates that an early broad study places many of the original kinds near the family taxon (Wood TC. 2006). A yet different CSRQ article discusses how there is

extensive hybridization among snakes. Work is still in progress but it appears that it would only require between one and three original kinds to account for all of the living snake species of today (Hennigan, 2005).

We can speculate concerning a plausible reason God created the initial kinds with such large potential variation. Doing this has allowed their descendents to fill all kinds of changing environmental niches without Him needing to create new forms for them.

There is a biological principle called “adaptive radiation.” If there is an ecological niche available for an animal or plant to fill, it will attempt to do so. If the information required for an adaptation to take place is already in the genes, then the adaptation can take place extremely rapidly. For instance, suppose that an original cat-kind had the genetic potential to form both house cats and African lions. Further suppose that the initial environment had the equivalent of today’s mice and zebras available as food supplies. House cats do not kill and eat zebras. African lions do not survive on mice they catch. Various alternatives of gene combinations would give different characteristics to the offspring of the original cat kind. Some of the offspring could be small and become mouse predators. Others could become large and relish zebras. It is conceivable that perhaps only 50 generations would be sufficient to establish the major divisions in the cat family, perhaps at the genus level. This would only require fifty years of elapsed time at one generation per year. Then, over the course of time yet more specialization would eventually produce the species we see around us today. So, if the information for adaption is already in the genes, the adaption can take place perhaps more than a million times faster than that proposed by traditional evolutionists.

What about mutations? Mutations do take place. In most cases their immediate effects are either neutral or only slightly deleterious or advantageous. However, it is conceivable that an occasional mutation which confers an advantage could be established through natural selection. We see this in bacteria, which adapt through mutation so that later generations can overcome the effects of various antibiotics used against

them. However, for a number of reasons mutations are not a viable means of developing complex new structures in an organism.

It is beyond the scope of this book to discuss mutations any further. A person who is interested may care to read John Sanford’s book on mutations, *Genetic Entropy & The Mystery of the Genome*, (ISBN 1-59919-002-8). Dr. Sanford was for many years a professor at Cornell University. He invented the gene gun, which was the original means of introducing new genetic material into a living cell and hence he may be considered a primary founder of the field of genetic engineering. He started his career an atheist. However, he observed many characteristics of gene structure which he believed could not realistically be accounted for by natural processes. The severity of the problems they posed ultimately led him to become an outspoken creationist. The book provides many reasons why mutations are an inadequate source to provide for completely new complex structures. He actually makes the case that the known rate of mutation is so high that natural selection could not effectively eliminate an increasing decay of the human genome between generations. His book presents a number of interesting issues. Man is not evolving over time, he is degenerating genetically.

Notice, nothing in the Bible requires an initial Biblical kind to be the exact equivalent of a taxonomical family, even though it appears this might be the case much of the time. Some of the original kinds might have actually been closer to the taxonomic level of a genus (such as cattle).

Missing Links

The fossil record typically shows all manner of closely-related specialists within the various taxonomic families. However, between families are large, systematic gaps. Normally, these gaps are void of fossils. Nothing in the fossil record shows a progressive sequence between any two families, where one family evolved into another and where the stages of the sequence are clearly represented by a number of well-preserved fossils. Occasionally, a paleontologist will claim that a certain fossil

links two families. Typically, though, the link is isolated. It is not part of a well-defined series. It is not well preserved and its characteristics are ambiguous, making it capable of alternate interpretations. Perhaps it is a member of a now extinct family totally unrelated to its proposed links. In truth the fossil record is not characterized by clearly defined evolutionary sequences showing the origins of the families.

The traditional, historical taxonomical system of classification is based on the following categories, with representative examples:

1. Kingdom. (Plants. Animals. Molds).
2. Phylum. (Chordates. Arthropods. Mollusks)
3. Class. (Amphibians. Reptiles. Birds. Mammals).
4. Order. (Carnivores. Primates. Bats. Rodents).
5. Family. (Cats. Dogs. Hyenas. Bears. Skunks).
6. Genus. (Roaring cats. Purring cats).
7. Species. (Tigers. Lions. Panthers. Leopards).

With this in mind, here is an interesting quote from a book on evolution: "The evolutionary origins of taxa in the higher categories are poorly known.... Most order, classes, and phyla appear abruptly and commonly have already acquired all other characters that distinguish them.... We are forced to the conclusion that most of the really novel taxa that appear suddenly in the fossil record did in fact originate suddenly. (Ayala, *F et al.* 1979, pp. 266-267)

Ayala *et al* observed that we do not know how to connect between taxonomic groups at the order and higher levels. They do not know this because the fossil record consistently misses all of the expected links required to make the connections. Instead, they have been forced to acknowledge that the levels that appeared suddenly in the fossil record (i.e. typically family) truly did originate suddenly. This is significant: the missing links are listed as the levels above the family, the "order, classes, and phyla." This is precisely what would be expected from the Biblical model we just developed. There are no clear connections

between the higher categories, i.e., those above the family. There are abundant connections between members within a family. The fossil record is more consistent with the model developed from the Bible than from evolution.

Notice, Ayala and Valentine are evolutionists. I assume they had no knowledge or understanding about the Biblical doctrine of kinds and how a kind often can represent a family. They had no understanding about how observed variation within a family has nothing to do with the large-scale evolution of Darwin, where fishes become amphibians, amphibians become reptiles, and reptiles become mammal and birds. They are simply reporting what they have observed without understanding its significance.

Darwin was extremely disturbed by the missing connections at the higher level. In fact, he was so disturbed by this that he devoted an entire chapter to discussing the problem, chapter 9 in his first edition of *The Origin of Species* and chapter 10 in the sixth. Darwin was so disturbed by this problem that his discussion concerning it consumes almost ten percent of the total contents of *Origin*, which is a rather large book. Yet, the only explanation he could offer was that an insufficient portion of the fossil record had been excavated as of the time he was writing. Excavations were limited to only a few places in the world. He predicted that as more of the world was excavated, this gap would be filled.

This prediction was wrong. Today, there have been numerous excavations made at sites all over the world. Yet, they still show the same pattern. Ayala and Valentine wrote in 1979, which was 120 years after *Origin* was first published in 1859, when Darwin first made the above comment. For 120 years paleontologists have excavated fossil sites all over the world in an effort to fill in the missing links between the higher taxonomic levels. Ayala and Valentine effectively acknowledged that this effort had proven unsuccessful, nothing was found.

The Biblical model actually fits the observed evidence better than does evolutionary theory!!! Sadly, professors will teach their students the opposite of this and not be open to discussing the evidence. This is nothing more

than personal, prejudiced bias posing as authoritative truth.

For instance, what fossil evidence is there to specify the specific fossil amphibian that was ancestor to the iguanidae, the reptile family containing iguana lizards? There is none. What is the path of evolutionary development between this amphibian and an iguana? The sequence of steps making up such a path is unknown. Or, which of the reptiles ultimately was ancestor to the cat family and what is the development sequence it took to get there? The fossils do not tell us. The sequence is missing. Instead, the cat family suddenly appears in the fossil record without any path to trace it back to a specific reptile. Furthermore, this is a general pattern for all of the families. Yet, normally, once a family does appear, then all kinds of closely related members are also found in it.

The most significant part of this observation is its systematic regularity. The various families of fish, amphibians, reptiles, and mammals all suddenly appear in the fossil record. So, for example, while the record is recording slight changes between various mammal forms, the entire sequence of how mammals and the origin of their various mammalian families is systematically missed. This is a truly serious problem for evolutionists. Darwin understood this and was bothered by it. He just chose to ignore its implications.

On the basis of the fossil record it appears that the Biblical model is correct. The family progenitor was created directly in an already mature, fully functioning form, with a very large potential capability of variation.

Living fossils provide another subject in which the fossil record is a problem for evolutionists and which is in agreement with the Biblical model. Certain species, such as the horseshoe crab and the coelacanth fish among others, exist both in the fossil record and in life today with essentially no distinguishable differences between them. Yet, the fossils of some of these forms are found in rock formations which are supposedly hundreds of millions of years old. If the evolutionist's assumptions are true, then it seems that the combined effects of hundreds of millions of

years of genetic drift and occasionally changed environmental conditions should have resulted in at least some changes taking place between the fossil versions and the living versions. Yet, for the living fossils this does not appear to be the case.

By contrast, if we postulate that in some instances God gave an extremely small degree of potential genetic variation to some of the created kinds, then we would expect these kinds to have the stability of features that characterize living fossils. The Biblical creation model again provides a superior understanding of the fossil record than does the traditional, Darwinian interpretation.

The Flood of Noah

At this time, I would like to briefly mention the flood of Noah. It is discussed in chapters 6 to 9 of the Bible. The creationist attributes the bulk of the fossils observed today to this flood. The flood is presented as world-wide in scope. This is consistent with the very existence of the fossils that are found in the fossil record. Fossils are typically formed by plants and animals being buried under conditions of moving water, such as a flood or tsunami. They are not formed in slowly deposited layers characteristic of lakeside burial, such as was assumed in Darwin's day to be the case and as I was taught in my own college geology course a number of years ago. Even the comparatively small-scale floods of today can deposit thousands of layers of mud many feet deep in a matter of hours. By contrast, the rock formations containing the fossils are frequently hundreds of feet thick with an area of tens of thousands of square miles or larger.

Furthermore, these formations have characteristics indicating they were formed as a single entity in an extremely short period of time, perhaps only days. No flood today makes deposits this deep and over such a wide area in such a short time. It would take a flood on the scale of that talked about in the Bible to accomplish this. However, it is beyond the scope of this book, which is primarily focused on origin-of-life issues, to develop this topic any further. A reader who would like to study this subject more thoroughly is referred to the Institute for Creation Research, to Answers in

Genesis, and to the Creation Research Society for more information. An internet search can quickly guide a person to their web sites.

Radiometric Dating

Another area of contention between evolutionists and young earth creationists, of which I am one, is radiometric dating and the apparent long ages of the rock formations based on this. There are a number of problems with this subject which are not discussed openly in evolutionary circles. The RATE project of the Institute for Creation Research has some interesting perspectives on this issue and we recommend that those concerned about these things examine what they have. An internet search on can take a person to this material.

Carbon 14 in Oil, Coal, and Diamonds.

Evolutionists like to claim that radiometric dating confirms evolutionary theory. However, carbon 14 contradicts this. Carbon 14 has a half-life of 5,700 years. This means that every 5,700 years, the amount of carbon 14 in an unadulterated carbon sample is reduced to half of its initial portion. After several hundred thousand years, the amount of carbon 14 should be essentially zero in any sample of anything. If coal and oil actually were formed at least 150 million years ago and diamonds billions of years ago, there should be absolutely no carbon 14 left in samples of any of these.

Yet, it is impossible to find a sample of oil, coal, or of diamonds or anything else anywhere on earth without its containing some amount of measurable carbon 14. Most samples measure less than 50,000 years of age.

Thus, according to a chronology based on the existence of carbon 14 in essentially all coal and oil deposits, the Carboniferous coal was formed less than 50,000 years ago, not the 300 million years claimed by evolutionists. Jurassic oil deposits date back less than 50,000 years, not the conventional 150 million years claimed by evolutionists. The problem, of course, is that a period of less than 50,000 years does not provide enough time to account for all of the evolution purported to have taken place in the past 300 million years. Yet, Carbon-14 dating of coal and oil samples indicates that dinosaurs lived less

than 50,000 years ago. Therefore carbon 14 dating contradicts evolutionary theory.

There are other problems with radiometric dating. Zircon crystals trap helium produced by the decay of uranium and its daughters. However, helium diffuses rapidly through zircon, yet very little of it has left the crystals. This indicates that the decay should have all taken place relatively recently not hundreds of millions of years ago. This raises the possibility that the decay rates have not been constant; if so, then this would invalidate the legitimacy of radiometric dating using rocks. Isochronic ratios are where different forms of radiometric dating are compared with each other. Consistent, discrepant patterns in this also imply that perhaps the decay rates are not constant. Significantly variable decay rates would make radiometric dating meaningless.

Volcanoes with fresh, recent lava flows date millions of years old. If the zero point is not defined, then dates become meaningless. There is a long list of known problems with radiometric dating which raise questions about its viability. However, the reader is referred to the Institute for Creation Research for more information. Go to the internet site www.icr.org/rate.

The Impact of Darwin's Misunderstanding

Darwin's misunderstanding about species supposedly being fixed still affects us today. Books on evolutionary theory on sale right now in the larger bookstores copy Darwin in his error and still echo his claims and conclusions. As an illustration, several years ago I bought four recently published books on evolution from a major, national bookstore chain. Three of them still claim that creationists teach that

species are fixed in their characteristics: Coyne, 2009, p. 17, Miller, 2008, p.90, and Shermer, 2006, p. xxii. Coyne's comment is typical, "So, how do we test evolutionary theory against the still popular alternative view that life was created and remained unchanged thereafter?" Coyne has built a straw man and is fighting it. Why won't he test evolutionary theory and the fossil evidence related to it against the actual

Biblical model such as we have presented here?

If a person will read Darwin's *Origin of Species* from the perspective presented in this book, he will find Darwin's entire argument is meaningless. None of the actual evidence he presented for his theory was outside the scope of expectations provided by the creation model we have looked at. Darwin believed that if he could show that species could be modified over time, that this could reasonably be extrapolated to fishes becoming mammals. Yet, he presented no evidence of the validity of this extrapolation. Instead, in the 9th chapter of *Origin* he acknowledged that the fossil record actually taught against such extrapolation, even as we mentioned earlier. He just hoped that the fossil record as known in his day was incomplete. 120 years of focused efforts trying to find the missing evidence have been fruitless.

It is sad to see how Darwin allowed a simple misunderstanding of a single Biblical concept lead to the complete destruction of his faith. This was needless, because in reality the Bible provided the very keys he needed in order to properly understand what he observed, both in the fossil record and in the various forms still living both in his day and ours.

Praise the LORD! For it is good to sing praises to our God; for it is pleasant, and praise is beautiful. (Psalm 147:1, NKJ)

Chapter 7 What is Science?

Sir Francis Bacon has been given historical credit as the inventor of the scientific method. Two quotations from his works are the heart of the method. The first is:

"Truth can never be reached by just listening to the voice of an authority" (Bacon F).

Bacon observed that most men in authority are more interested in exercising their prestige and rank than in finding truth, particularly new truth. They place more significance on praise from men about their own knowledge and brilliance than in finding truth, especially if that truth contradicts their publicly stated positions. We see this today.

When this statement is combined with the next quote, it becomes very significant and powerful. It is paraphrased from the Old English to make it easier to understand. Bacon said in effect,

"There are and can be only two approaches to searching into and discovering truth. The first jumps from observations and details to all-encompassing, generalized theories which are then presented as true, fixed, and not subject to alteration. From these, one uses logic to deduce various conclusions in the more detailed areas. These deduced conclusions are likewise considered true and unalterable. This is the way things are currently being done.

"The second approach derives explanations for observed facts in very small realms. It then tests its conclusions with a broader application of data. Finally, after going through this process many times, it arrives at the most general explanations last of all. This is the true way, but so far no one has tried it" (Bacon F. 1620).

The combination of these two statements defines the historical scientific method. It is the recognition that truth is discovered most effectively by a bottom-up, inductive approach based on experiment. The effectiveness of Bacon's suggested new approach has given us penicillin, electricity, relativity, and quantum mechanics. The whole concept behind modern science and the engineering principles proceeding from it is that truth is based on experimental observation, not the arrogant pronouncements of a self-appointed authority.

When Bacon suggested this approach as a method for discovering truth, it was not known whether it had any practical validity or not. Notice, he said that so far no one had actually tried to carry it out in practice. However, the approach did capture the minds of many key thinkers in his day. Therefore, it was in applying Sir Francis Bacon's approach to arriving at truth that modern science was born.

Most branches of modern-day science were founded by a Bible-believing Christian.

This includes Kepler (physical astronomy), Boyle (chemistry), Newton (physics), Faraday (magnetism), Linnaeus (taxonomy), Steno (stratigraphy), Cuvier (comparative anatomy), Dalton (atomic theory), Maury (oceanography), Simpson (anesthesiology), Joule (thermodynamics), Mendel (genetics), Kelvin (thermodynamics), Maxwell (electromagnetic field theory), John Sanford (DNA gene gun—see page 27), and James Tour (chemical nanoparticles) plus many others.

James Tour was honored as Scientist of the Year in 2013 by R&D Magazine. (www.rdmagazine.com). He has been attributed as saying, “I build molecules for a living, I can’t begin to tell you how difficult that job is. I stand in awe of God because of what he has done through his creation. Only a rookie who knows nothing about science would say science takes away from faith. If you really study science, it will bring you closer to God” (Strobel L. 2000).

Does this seem strange? Many people today have been taught that science and faith in God do not mix. This is only a lie preached by those who themselves do not like God and wish it were true in order to justify their personal rejection of Him. Some of the greatest scientists in history believed in God. Some great modern ones do, too. Tour has learned the same awe for God that the early scientists had.

The original goal of the early scientists was the discovery of truth, with an underlying conviction that the truths they were discovering revealed God’s wisdom and power. The more they saw of the intricacy and logical organization in the things they studied, the more awe they had for their God. Indeed, Psalm 111:2-4 describes their attitudes perfectly:

² The works of the LORD are great, Studied by all who have pleasure in them.

³ His work is honorable and glorious, and His righteousness endures forever.

⁴ He has made His wonderful works to be remembered; the LORD is gracious and full of compassion.

However, today our culture has largely given itself over to atheism. A modern scientist who, being the product of his culture, is an atheist first and a scientist second, does not

understand the mindset of a person who studies the creation as an act of worship for the Creator. He is incapable of understanding this mindset, because this

would require him to acknowledge at least the possibility that God exists, which is something he is unwilling to do. So, he uses “science” to justify his rejection of God and then convinces himself that somehow he is intellectually superior to those who do believe in God.

In his book *Why Darwin Matters*, Michael Shermer states, “Science also seeks only naturalistic explanations for phenomena” (Shermer M. 2006). A more accurate statement would restrict the explanations to observable, repeatable phenomena: “Science also seeks only naturalistic explanations for observable, repeatable phenomena” Reconstruction of reputedly historical events is not science. One cannot perform an experiment in past time. Issues involving historical interpretations of origins or evolutionary events are statements of belief. A tremendous amount of subjectivity is involved in the interpretations. History is not science is not history.

Science is the study of principles and laws which constrain the normal behavior of objects in the universe. However, this has nothing to do with whether or not a Creator exists and, if He does, the extent to which He works within His creation. The atheist makes the assumption that if he cannot control God in an experiment, then God does not exist. This is the height of arrogant egotism.

However, the atheistic scientist has attempted to define science in such a manner that he cannot acknowledge any evidence of a Creator, even when it exists. He may impress himself with his rhetoric. However, word games will not make a living God disappear.

Science does not have the power to deny the existence of a God who intervenes into His creation. All a scientist knows is that he himself is bound by the principles and laws of nature. It is improper for him to extrapolate beyond this and claim that there is not any such thing as a God who can intervene into the affairs of the universe, One who can at will override the normal laws of science. Science does not give him the tools to make such a statement and it is

dishonest for him to represent that it does.

By contrast, we have clearly seen how entropy shows natural processes cannot create life. Furthermore, the use of information to control a living cell shows the cell is the handiwork of a living personal God.

Chapter 8 God and Humanism

Humanism is that philosophy which elevates man to becoming his own god. Its foundational assumption is that life is the outcome of unguided natural processes and that man is therefore accountable only to himself. Man can only look to his own wisdom to solve the problems of the world. Religion, and particularly when religion teaches an afterlife of heaven or hell, does more harm than good; it diverts people's attention from solving the real problems of the here and now. Modern science confirms that materialistic, unguided evolutionary forces are adequate to explain the organization of the universe and of life. Ultimately, humanism leads to socialism, because an all-powerful, all-controlling government is required for man to solve the immense problems facing the world. Overpopulation, global warming, pollution, and war are just some of the problems that man must solve in order to survive.

The arguments behind humanism and its sister socialism have been put together by some of the most brilliant minds over the past generations. They are persuasive, logical, and powerful.

However, if there is a living God who created the universe and the life that is in it and if this God holds man accountable for his actions, the foundational assumptions of humanism are false. If the foundational assumptions are false, then everything built on those foundations is also false. Humanism is not the solution to the world's problems.

It is my personal conviction that the living Creator God has given evidence of Himself in the way He designed the creation. He considers this evidence so clear that He considers a person without excuse who rejects it. The arguments presented earlier in this booklet provide a powerful testimony to the

insufficiency of unguided materialistic forces to create life and that, by contrast, life must be the creative work of a living, personal God, with unfathomable wisdom, the power to work outside of natural processes, and a will. These arguments are conclusive and powerful because God designed the universe to make them conclusive and powerful.

In Romans 1:19-22 the Bible presents God's analysis of the situation:

¹⁹ ...What may be known of God is manifest in them [mankind], for God has shown it to them.

²⁰ For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse,

²¹ because, although they knew God, they did not glorify Him as God, nor were thankful, but became futile in their thoughts, and their foolish hearts were darkened.

²² Professing to be wise, they became fools." (NKJ)

From God's perspective, the evidence is so clear and, in accordance with the verses before and above the quoted passage, the consequences so severe, that a person who rejects the testimony God provides Him may profess to be wise, but from an eternal perspective is a fool. When a person stands before God to give account of himself, all of his arguments about why God doesn't exist will be meaningless. All of his arguments about how he can do what he wants without being judged on them will be meaningless.

Therefore, it is important that a person seriously consider the evidence God has provided. I have passed out multiple tens of thousands of booklets similar to this one on university campuses over the past decade. Perhaps on the average one out of three students takes one. Many stare at me in disbelief, wondering how I could have the audacity to present something so backwards on a campus as sophisticated as theirs. They laugh at me and disappear without giving me a chance to present my case.

However, there have also been many, many conversations over the years with students,

graduate students, and professors. This is the 43rd revision of the booklet, with most revisions coming as a result of these discussions. I have never had a major point I presented in these discussions refuted. I listen to the rebuttals and I consider them. Normally, there will be three reactions: 1) “You are so wrong I do not need to listen to anything you say.” 2) “Wow. I did not realize these kinds of arguments even existed.” (A testimony of their many years of brainwashing by those afraid to allow an honest discussion of the evidence). or 3) “Who are you to challenge all of the wisdom professed by all of the professors in all of the universities across the country?” They do not realize that I do not represent myself, but rather represent the living God who created the universe and all that is in it, including them. The real question is, “Who are they to declare that God does not exist? They didn’t create life. They cannot work outside of the laws of nature. And, they cannot explain how life got here. What gives them the right to speak so boldly about things of which they are so ignorant?”

The Humanist Manifestos

The basic tenants of humanism are expressed in three manifestos, written in 1933, 1973, and 2001. Each of these was signed by many of the leading, most prestigious “thinkers” of their times. The most complete and detailed of the manifestos is the second one. It was initially signed by 114 people. Eventually, 147 additional names were added. Some quotations from it reveal the humanist position on traditional religions, including Christianity.

Despite the prestige of those signing the manifestos, humanism simply does not work in real life. This is what we would expect if it is the product of false assumptions. Economic and political systems founded on its principles invariably increase the misery of those living under them. In its efforts to make a perfect environment to solve the problems of the world, individual opportunity is stifled and individual freedoms are suppressed.

Even the authors of the second humanist manifesto acknowledged the practical failures of humanism when its principles were put into

practice. For example, in the early 1930s, the time when the first manifesto was written, humanists were excited about the future. Both Nazism and communism were the products of humanistic philosophy. At this time period humanists were optimists; they anticipated that the world would soon have showpieces demonstrating the superiority of humanism over any system previously seen in history and particularly over those founded on Biblical principles. However, this excitement was short lived. Forty years later, the opening statements of the second manifesto explain what happened,

“It is forty years since Humanist Manifesto I (1933) appeared. Events since then make that earlier statement seem far too optimistic. Nazism has shown the depths of brutality of which humanity is capable. Other totalitarian regimes have suppressed human rights without ending poverty. Science has sometimes brought evil as well as good. Recent decades have shown that inhuman wars can be made in the name of peace. The beginnings of police states, even in democratic societies, widespread government espionage, and other abuses of power by military, political, and industrial elites, and the continuance of unyielding racism, all present a different and difficult social outlook.”

Notice, even as the world’s leading humanists themselves acknowledged in the second manifesto, it was humanists that led a world that wanted peace into World War II. It was humanists that introduced the modern police state along with its secret police reigning terror on the citizens of the state, citizens who simply wanted to live a quiet and peaceful life. It was humanists that led deliberate attempts for the genocide of an entire race (the Jews) based on the implications of evolutionary theory.

The second manifesto was written in an attempt to address these problems. This attempt would be amusing in its naiveté if the consequences were not so serious. In the second manifesto an attempt is made to prevent dictators from abusing power by declaring that they shouldn’t do so. As if Hitler would

disassemble the S.S. because some university professor thought it would be nice for him to do it! As if Stalin would disassemble the K.G.B. because some university professor thought it would be nice for him to do it! Both Hitler and Stalin would be far more inclined to “disassemble” the professors.

The above-quoted opening to the second manifesto nobly speaks of “human rights.” Notice the difference between a Biblical perspective on human rights as opposed to one founded on the principles of humanism.

The Bible teaches that God made man in His own image. By contrast neither animals nor plants nor inanimate objects were so made. Because even the least among men still carries aspects of the image of God within him, he has far greater innate, intrinsic value than any animal, plant, or inanimate object. Actually, from God’s perspective it goes beyond this: the way a person treats another person reflects how that person feels about God, because man was created in God’s image (See James 3:9-10 in the Bible). Anyway, every man has value in God’s eyes and God expects men to recognize this innate value. This is what makes abortion wrong. The Bible teaches that every person will give an account to God of the things he has done in this life and that this accounting will have eternal, unchangeable consequences. **A person who believes this has a primary motivation to recognize the intrinsic worth of another man.**

By contrast a humanist has no real motivation to recognize the rights of others. The manifestos make it clear that from the perspective of humanism, when a person dies he disappears. There is no accountability to an eternal, living God. All that a person receives whether good or bad will be what he receives during his lifetime here on earth. Because of this foundational premise, humanism is powerless to stop the abuse of power by its leaders. Speaking of human rights sounds well when read, but there is no overriding motivation for a leader to recognize the rights of other people at his own expense. It is because of this inherent weakness that humanism does not work and cannot work. Given enough time it will always lead to oppression of people and suppression of their rights.

What process leads to the appearance of dictators? In their initial efforts to gain favor among their people, leaders promise more than they can deliver. Then, when the leaders fail to meet people’s expectations, people become restless. As the people start to rebel, the leaders turn to force in order to maintain control. This has been the pattern throughout history. Exceptions are only temporary in duration. Humanism is powerless to stop this progression.

Humanists claim that earlier experiments in socialism failed because the wrong people gained power. They do not understand that human nature, corrupted by fall of Adam recorded in Genesis 3 of the Bible, combined with the inevitable failures of a humanism-based political system to satisfy people’s expectations will invariably bring about a Hitler or a Stalin. The failures of Stalin and Hitler were due to the inevitable failures of humanism, not to inappropriate leaders opportunistically working themselves into positions of power. Any human being convinced of humanistic principles would follow in Hitler’s or Stalin’s footsteps under similar circumstances. The problem was not the person of Hitler or Stalin. It was people placing their faith in an errant and inadequate philosophy of life.

Is there anything that could be effective in preventing a leader who sees his authority disintegrating from turning into a dictator? The only truly effective prevention is for the leader to submit to God’s authority over his life and the decisions he makes. Effective prevention comes when he acknowledges that the God who designed the universe and brought it into existence has greater wisdom than he does and when he trusts in the validity of the things that that God has revealed to us. The United States was fortunate to have had such men in positions of leadership in its earlier generations.

Why do humanists hang on to humanism in the face of the obvious problems associated with it? It is because their only alternative would be to acknowledge the existence and inherent authority of a personal God. This is something they are unwilling to do. Their decision has nothing to do with evidence. It has nothing to do with reason. It has

everything to do with personal hatred of a God who sets standards for their behavior and expects their obedience and submission to Him and His authority.

Chapter 9 Who Is the Creator?

The Creator is a transcendent God. By this we mean that He exists outside of and independently of His Creation. He existed before it. He brought it into existence because He decided to do so. The things from science we have discussed in this booklet teach the necessity of a God who “transcends” natural law as the originator of life.

As its Creator, God can interact and intervene with the events and activities within His creation at His will. What we would consider a “miracle” is nothing to Him; One who can create a galaxy out of nothing and not be exhausted from doing so can intervene into the daily affairs of His creation whenever and however He pleases. It is also true that He is not obligated to override the natural order He placed within creation. He is sovereign over creation and no one and nothing can stand against Him in whatever He decides to do or not to do.

There is an important ramification of God’s transcendence. We cannot know anything about Him unless He first reveals it to us. Human wisdom based on observing the creation and its behavior can surmise only very limited information about a God who exists outside of the creation.

Because of this, philosophical arguments based on human observation and reasoning are doomed from the beginning as an adequate source of truth. Why? They are incapable of dealing with issues involving a transcendent God. Yet, these are the very issues wherein lie the basic truths of man’s origin, purpose, and destiny. Since humanism is essentially a philosophy founded upon the principle that an active, living God does not exist and that man must therefore act as his own god, it is errant and ultimately will leave behind a trail of misery and destruction wherever its concepts are implemented.

We are now faced with a question. Is

there any indication that the Creator has revealed to us significant details about His nature and about what He expects from us? Certainly a Living Creator God who can create a galaxy out of nothing and who can at will override the laws of science can also reveal Himself to us if He desires and chooses to do so.

Among the writings of the world’s major religions, the Bible is unique. It alone opens with a statement declaring its God as the Creator: “In the beginning God created the heavens and the earth.” (Genesis 1:1) The first two chapters of the Bible deal with the details of this creation, including the creation of living organisms and of man. The third chapter deals with the origin of man’s sin problem and why there are so many problems in the world. The third chapter also gives a hint of God’s provision for dealing with the sin problem (verses 15 and 21). So, the Bible alone opens with revelation about the creation of the heavens and the earth, the creation of physical life, and the foundational relationships between man and God. If one wants to find if the Creator God has revealed a message for us, the Bible is a rational place to start the search.

As we saw in Chapter 5, the Bible is unique in another way. It alone reveals God as initially creating “kinds” such that seed (the means of descent) is within the kind. The Koran does not do this. The Book of Mormon does not do this. Hindu Scriptures do not do this. There is major significance to this seemingly trivial comment about *kinds* having their seed within them. This perspective gives us the key needed to provide an alternative explanation for the content of the fossil record. When one looks at the data of the fossil record without preconceived evolutionary biases and notions of long ages, he finds that the actual data itself is consistent with the Genesis account.

Actually, there is yet far greater significance to these opening verses of Genesis. God says that He alone knows what happened in the “former” times, a time which includes the events of creation. He then challenges any person or alternative god to give an adequate explanation of what happened:

²¹ "Present your case," says the LORD.
"Bring forth your strong reasons," says

the King of Jacob. ²² Let them bring forth and show us what will happen; let them show the former things, what they were, that we may consider them, and know the latter end of them; or declare to us things to come.” (Isaiah 41:21-22)

⁹ Let all the nations be gathered together, and let the people be assembled. Who among them can declare this, and show us former things? Let them bring out their witnesses, that they may be justified; or let them hear and say, "It is truth." ¹⁰ "You are My witnesses," says the LORD, "And My servant whom I have chosen, that you may know and believe Me, and understand that I am He. Before Me there was no God formed, nor shall there be after Me. (Isaiah 43:9-10)

In the passages from which these statements are taken, God is taunting those who reject Him. He is asking them to accurately declare the past or the future, knowing that they cannot do either. He alone can do it. In effect for the purposes of our discussion here, God is claiming that apart from His revelation a person CANNOT know what happened in the former times. In other words a humanistic, rationalistic explanation of the origin of the universe and of life is DOOMED to failure because God has decreed that He alone has the capability of knowing what happened. He was there, He did it, and He told us what He did. A person who rejects His account will thus be forced into a false explanation, having rejected the true one.

An extension of this thought is found in Romans 1:20 of the New Testament in the Bible:

“For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse.”

In effect, all of the problems, all of the roadblocks, all of the inconsistencies facing the evolutionist are there because God deliberately placed them there. The humanist cannot succeed in a rationalistic explanation of life because God created the universe in a manner that such an

explanation will be false and inconsistent with the evidence. God deliberately made the evidence revealing His person so clear that *from His perspective* a person who does not see it is “without excuse.”

Many books have been written giving evidences of why the Bible is an authoritative, accurate revelation from God. In reality, the Bible is a self-confirming book. The evidence establishing its authority is found within itself. Among these evidences is God’s unique ability to declare both the past and the future accurately. In fact, some Biblical scholars have analyzed that about one-third of the Bible was prophetic when it was written. No other book comes even close to containing as much prophecy of future events as does the Bible. Much of the prophecy was fulfilled within the scope of Biblical times. Much of it applies to a much broader scope; indeed, we are seeing much of it fulfilled even before our eyes in current times. Yet other portions apply to events yet far distant in the future. This is all consistent with what we would expect from a God who created the heavens and the earth, who created man, and has a message He has revealed to man.

Why then does everyone not immediately jump at the chance to hear about the Bible? Perhaps an incident that took place on the George Mason University campus in Fairfax, Virginia will answer that. I gave a booklet to a student who had previously never heard about a scientific basis for believing in the Creator. He was unaware of how so much of what he had been taught about evolution was known to be contrary to established principles of science.

We talked extensively about the issues and he became excited about what he was then hearing for the first time. He said, “Why don’t they teach these things in class?” I explained how many people hate the notion of a Creator and do everything they can to suppress knowledge of Him. He said, “Why?” I explained that the reason was simple. If a Creator God truly exists, then He has an intrinsic right to set standards for our behavior. People do not want to submit to a God who sets standards. They want to reserve that right for themselves. I then mentioned how most of the students on the campus right then were much more interested in

thinking about what they would be doing at the party they would be at in a few hours (it was a Friday afternoon) than in seeking out the will of the God who created them.

All of a sudden, his face turned red and he mumbled, “I see what you mean.” We soon parted our ways and I have no idea whether our discussion had a lasting impact on his life or not. But, this little episode summarizes the problem. The sin in our lives deadens our desire to know the Creator. The next chapter will discuss this issue in more detail.

Chapter 10 Glorifying the Creator

It is amazing that not only has the Creator designed the creation so that it teaches us of His existence, but He has also decreed that we can know Him personally. A very precious universal promise is given in 1 Chronicles 28:9 of the Bible:

“The LORD searches all hearts and understands all the intent of the thoughts. If you seek Him, He will be found by you; but if you forsake Him, He will cast you off forever.”

The living God who created the heavens and the earth promises that a person who seeks Him will find Him. This is good news. It is the most significant promise a person can have. Becoming at peace with the Creator—that is, finding Him and knowing Him—is more important than a job, than a marriage, than health, or a few more years of life, all of which will soon pass away anyway. Along with the promise, though, is responsibility. If a person rejects the light God has given Him, the consequences are eternal. According to the verse, such a person will be cast off forever.

How do you come to know God? The first step is to believe that He exists and that He will reward you if you seek Him diligently:

“But without faith it is impossible to please Him, for he who comes to God must believe that He is, and that He is a rewarder of those who diligently seek Him.” (Hebrews 11:6)

So, he expects you to believe that He exists and He expects you to receive the testimony He has given of Himself concerning

His existence. Much of this booklet has been focused on evidences demonstrating the reality of His person. Once you recognize that He is real, you need to seek Him and do this diligently. Finding Him needs to become your number one priority.

The situation we are in is described in the book of Isaiah,

“Behold, the LORD’S hand is not shortened, that it cannot save;
Nor His ear heavy, that it cannot hear.
But your iniquities have separated you from your God;
And your sins have hidden His face from you,
So that He will not hear.” (Isaiah 59:1-2)

The problem is sin. Sin separates us from God. There is a spiritually deadening effect that sin has on a person. We do not need to be told this; we know it from experience. In fact, sin can get such a strong grip on us that we become its slave. A person instinctively knows that sin in his life offends the Creator and for that reason is uncomfortable talking about Him. He does not like to think about Him. He does not seek God even though He knows God exists.

However, the above verse is a verse of hope. Even though our sins separate us from God, God is able to save us from our sins. The question is whether or not we want Him to. The issue is whether or not we are willing to seek Him.

Isaiah also told us how God would go about saving us from sin. We read about this in the 53rd chapter of the Book of Isaiah in the Bible:

³“He is despised and rejected by men...He was despised and we did not esteem Him.”

God is going to use a man to save us who was despised and rejected by men. Earlier, in verse 1 this man was identified as the *Servant* of God. We will also call Him by that name for now.

⁵ “But he was wounded for our transgressions,
He was bruised for our iniquities;
The chastisement for our peace was upon Him.

And by His stripes we are healed.”

Isaiah speaks of how the Servant was wounded because of our sins. We who are separated from God by our sins can be at peace with God, because His Servant bore the punishment and chastisement that was due us. It is by means of His affliction that we can be healed from sin and its consequences. The next verse continues,

⁶ “All we like sheep have gone astray; we have turned, every one, to his own way; and the LORD has laid on Him the iniquity of us all.”

Again, the problem is our sin. We stray from God. We want to go our own way, not His. We want God to bless us for our sakes; we are not interested in serving Him for His sake. Yet, praise God! In His mercy, He has laid on His Servant our sins. Dropping down to verse 10,

¹⁰ “Yet it pleased the LORD to bruise Him; he has put Him to grief. When You make His soul an offering for sin, he shall see His seed, He shall prolong His days, and the pleasure of the LORD shall prosper in His hand.”

God was willing to bruise the Servant, to put Him to grief for a bigger benefit to follow. This was a grief unto death. The Servant was made an offering for sin. An Old Testament offering always required the death of the one being offered. Our sins created a barrier between God and us. That barrier could only be removed by the death of an acceptable substitute. God provided a substitute for us in the person of the Servant.

¹¹ “He shall see the labor of His soul, and be satisfied. By His knowledge My righteous Servant shall justify many, for He shall bear their iniquities.”

Was God unfair to lay our sins on the Servant? Not from the Servant’s perspective according to this verse as well as the one preceding it. Although the Servant suffered on our behalf, God resurrected Him after the sacrifice was finished. After the resurrection, the Servant saw the fruit of His labors in the salvation of those who would come to know Him. Upon seeing this, the Servant was satisfied. It was worth it. His death and the

suffering associated with it resulted and will result in the salvation of many. He bore their iniquities, and this was a grief. However, when He sees the product of His labors, the salvation of men, He will be satisfied that it was worth the cost.

This is one of the most precious statements in the Bible. My situation is not good. I have sinned against God. My iniquities have separated me from Him. Yet, in His love for me, He has sent His Servant as an offering for my sin. In His love for me, He has saved me. Furthermore, He offers His salvation to anyone willing to receive it on His terms, which are simple. He offers salvation as a free gift to the one willing to receive it.

How does a person receive this gift? The above verse teaches us that it is by coming to know Him. We will discuss this later. Finally, the chapter concludes,

¹² “Therefore I will divide Him a portion with the great, and He shall divide the spoil with the strong, because He poured out His soul unto death, and He was numbered with the transgressors, and He bore the sin of many, and made intercession for the transgressors.”

God is going to greatly honor this person, because He poured out His soul unto death as He bore the sin of many and because He made intercession for the transgressors.

Friend, the Servant of God is willing to intercede before God on your behalf, that you might become clean in God’s eyes and counted by Him as righteous—not because of what you have done, but because of what the Servant did for you out of God’s love.

Who is the Servant who offered Himself up for you? Isaiah talks about Him a few chapters earlier, in chapter 42:

¹ “Behold! My Servant whom I uphold, my Elect One in whom My soul delights! I have put My Spirit upon Him; he will bring forth justice to the Gentiles.”

The Servant is One whom God has chosen to bring forth justice to the Gentiles. The Servant is none other than the Old Testament Messiah, the anointed King that God has

promised to send to rule the entire earth. We could say more about this passage, but this is sufficient for now.

A sacrifice had to be perfect. Any blemish in a sacrifice would have made that sacrifice unacceptable. Both Jew and Gentile would need the benefits of such a sacrifice, for we all have sinned before God. There is only One who is perfect, who is without sin. That is God Himself. Somehow, then, God would need to be the one who was sacrificed. How could this be?

The Bible teaches that God has a Son. The Son is God, but distinct from the Father. We read about the Son in Psalm 2 of the Bible:

²"The kings of the earth set themselves, and the rulers take counsel together, against the LORD and against His Anointed...."

⁷"I will declare the decree: the LORD has said to Me, 'You are My Son, today I have begotten You.

⁸'Ask of Me, and I will give You the nations for Your inheritance, and the ends of the earth for Your possession.' "

These verses teach us that the Messiah, the Anointed One of God, is also the Son of God. It is His own Son that God will send to rule on the earth.

In Deuteronomy 29:29 we read that, "The secret things belong to the LORD our God, but those things which are revealed belong to us and to our children forever...."

In other words, there are some things that God reveals and some things He keeps secret. He has revealed that there is only one God. He has revealed that He has a Son. The Old Testament of the Bible ascribes deity to His Son (Psalm 45:6-7, Micah 5:2), so His Son is God. How can there be only one God, and yet this God have a Son who is also fully God? To the human mind, these things seem contradictory. However, the problem lies in our understanding, not in God's nature.

A person with a submissive spirit towards God will accept what God has revealed and respond to it in faith. He understands that human intellect is not sophisticated enough to

fully comprehend God's nature. He will be content to recognize that God's ways are higher than our ways and that there are some things that God chooses not to reveal to us. By contrast, the one who has a rebellious heart will come across something he does not understand and will then use that as an excuse to rebel against God and reject what God has revealed. Such a person places his own wisdom above God's revealed truth. He limits the nature of the eternal, omnipotent, living God who created the universe to what makes sense to himself, a created being. This is foolishness.

Continuing in Psalm 2 we read,

¹¹"Serve the LORD with fear, and rejoice with trembling.

¹²"Kiss the Son, lest He be angry, and you perish in the way, when His wrath is kindled but a little. Blessed are all those who put their trust in Him."

How we respond to the Son determines our destiny. Refusing to respond with affection to the Son will kindle His wrath. However, those who are willing to put their trust in Him will be blessed. We will discuss a little later what it means to put our trust in the Son.

Even though the things we have just looked at are remarkable, there is more. Who is the Servant? Well, let's look at some more verses. In Micah 5:2, we come across something really interesting:

²"But you, Bethlehem Ephrathah, though you are little among the thousands of Judah, yet out of you shall come forth to Me the One to be Ruler in Israel, whose goings forth are from of old, from everlasting."

This passage speaks of the Messiah, the One who is to be Ruler in Israel. He has existed forever (i.e., He is God.) Yet, He shall be born in the tiny city of Bethlehem. Another interesting passage is found in Isaiah 7:14,

¹³"Then he said, 'Hear now, O house of David! Is it a small thing for you to weary men, but will you weary my God also?

¹⁴'Therefore the Lord Himself will give you a sign: Behold, the virgin shall

conceive and bear a Son, and shall call His name Immanuel.’ ”

How could an eternal God with an eternal Son have that Son be born into the world? To God the solution was simple. A virgin would conceive and bear a Son. He would be called, “God is with us” (Emmanuel). Although modern scoffers have claimed in their disbelief that the word translated *virgin* should be translated “young woman,” their error is easily refuted. The Septuagint is a translation of the Jewish Bible, the Old Testament, from the original Hebrew language into the Greek language. It was made several hundred years before the birth of Jesus by people who actually spoke both Hebrew and Greek in their daily living. The Greek language makes a clear distinction between a woman who is merely young and a woman who is a virgin. The translators had no particular agenda or bias when they translated the passage and they chose a word which explicitly means “virgin.” The reason for this is simple. It is also what the Hebrew word means. The issue is not the meaning of the word. The issue is that many people do not believe what the passage says and want to soften it into something they can believe.

However, in this passage, God was going to give a sign to the entire House of David. It would be a momentous sign. The virgin would conceive and bear a Son who would be called, “God is with us.” A God who can create the universe and who can create life at will would certainly have no difficulty in fulfilling this verse. The only difficulties are in the mind of man.

There is another key to the puzzle of the identity of the Servant. In Daniel 9:25-26 we read,

²⁵ "Know therefore and understand, that from the going forth of the command to restore and build Jerusalem until Messiah the Prince, there shall be seven weeks and sixty-two weeks;

the street shall be built again, and the wall, even in troublesome times.

²⁶ "And after the sixty-two weeks

Messiah shall be cut off, but not for Himself....”

The command to rebuild both Jerusalem as well as its wall took place in approximately 446 B.C., during the 20th year of King Artaxerxes. It is recorded in Nehemiah 2:1-8. From the time of this command until the Messiah is killed (cut off) would be 69 weeks. A study of related passages shows that a week in this context is a period of seven “almost” years—seven periods of 360 days each. Calculations place the time of the Messiah’s death to be somewhere in the timeframe of 31 A.D. However, His death would not be for Himself. Indeed, the death of the Servant was to be a sacrifice for us who have gone our own way and sinned against God.

So, we have learned a lot about the Messiah. We have learned that He is the eternal Son of God who would take on human flesh and literally become God in the flesh after a virgin birth. He was to be born in the city of Bethlehem. He will ultimately rule over the entire earth, although the time for that is still future. However, before this He would offer Himself as a sacrifice for the sins of men. He would die somewhere around 31 A.D. and would be raised from the dead. Then, when He sees those who were saved from their sins because of His sacrificial, substitutionary death, He would be satisfied that it was worth all of the grief and suffering it cost Him.

Is there anyone who fits the description of these things? Yes, Jesus of Nazareth, a man who went about doing good, who demonstrated the power of God in His life by working many miracles, who has had a greater impact on world history than any other single man. He is the One described in all of these various verses. Furthermore, He is the only person in history who could have fulfilled the various prophecies, for the decreed time of His death has long since passed.

It is interesting that every one of the passages we have looked at concerning the Servant, the Messiah, and the Son were written well before the birth of Jesus the Messiah. In fact, the time of authorship ranges from about 500 to 1,000 years before His birth. The Creator had a specific plan in order to redeem man. He

told man about what He had decided to do long before He did it. The documents foretelling these things were recorded in a very well known body of writing, the Hebrew Testament. Then, in accordance with His power, God did what He said He would do. He did this at the exact instant He had determined to do it.

There is a verse in the New Testament, Romans 5:8, that summarizes the underlying motive of God in doing these things:

“But God demonstrates His own love toward us, in that while we were still sinners, Christ died for us.”

The word *Christ* is the Greek word for the Hebrew *Messiah*. The Messiah died for us! He did this because God loves us.

Friend, what will you do with Jesus? Science points to a Creator God. God specifically designed the creation to reveal His person, and we have looked at ways in which it does. Beyond this, the Bible confirms that the Bible is truly His Word by fulfilled prophecy. The scope and magnitude of the prophecies are overwhelming. These are not prophecies of some minor event happening in the life of some inconsequential person. These are prophecies of the Son of God taking on human flesh through a virgin birth and then dying as a sin offering for the sins of mankind. These are prophecies of resurrection after His death and of His ultimate satisfaction over what His suffering accomplished. These are prophecies defining where the Son would be born and the year He would die. Only the Creator could make and fulfill prophecies of this magnitude.

Because God loves you, He sent His Son in the likeness of human flesh that He might make Himself an offering for you, bearing your sins in His body. You have no other hope, because He is God’s only provision. If anything else had been adequate, God would not have gone to the extreme measure of offering His Son as a sacrifice for our sins.

The Son of God offered Himself as a payment for your sins. If you will trust Him, He will bless you eternally. However, if you refuse Him, you will kindle His wrath, for you have despised something extremely precious and

costly and which for now is being offered to you freely.

God offers you eternal life. He offers you forgiveness of sins. He gives you the promise of knowing Him on an intimate basis. However, if you forsake Him, if you turn from Him, He will cast you off forever. The decision is yours. God gives the reward for seeking Him diligently. Putting off the decision is to risk eternal damnation.

So, how do you receive the Son as your Savior? It is explained in John 3:16,

“For God so loved the world that He gave His only begotten Son, that whoever believes in Him should not perish but have everlasting life.”

We receive God’s Son, the Lord Jesus Christ, as our Savior by believing in Him. This verse is really an application of Psalm 2:12, which we looked at a little while ago and which states that, “Blessed are all those who put their trust in Him.”

What does it mean to believe in Him? The Greek word translated here as “believe” can also be translated *trust in* or *rely on*. Believing in Christ as Savior means accepting what God has revealed about His person, that He is the Son of God and will some day rule as King. It means accepting what God has revealed about His work, i.e. that Christ died for our sins, was buried, rose again three days later, and was seen by many witnesses. Finally, it means RELYING on these things for our salvation. We no longer rely on ourselves or on our own works. We rely on Christ’s finished work to save us.

We have lived in rejection of God. We have suppressed truth about God so that we could live in sin. But now, we recognize that God is holy and will have nothing to do with sin. It is our desire to come to Him, to know Him, to be pleasing to Him. Yet, we know that our sins make this impossible and there is nothing we can do about it. Our sins have too powerful a grip on us.

God loves us and has done all of the work for us. He is willing to receive us if we

come to Him His way, which is through His Son Jesus Christ.

As we come to Christ, He reveals our sin to us. We can look to Him to forgive us of our sins or we can turn from Him and go our own way. But, we cannot come to Christ to save us while deliberately determining to continue in our sins. Repentance is the willingness and desire to have Jesus make us clean. It is turning from a life of rebelling against God and from going our own way. Yet, it is not trying to become clean by our own will power. We do not have the strength to do this. It is yielding to Him to save us and cleanse us.

"God now commands all men everywhere to repent." (Acts 17:30)

Friend, may you cast yourself on the mercy and grace of Jesus, relying on Him to cleanse you and make you acceptable to God.

Jesus said,

"The one who comes to Me I will by no means cast out." (John 6:37)

The Old Testament prophet said that if you forsake God, He will cast you off forever. But, Jesus promises that if you will come to Him, He will not cast you out. You come to Him by believing what God said about Him, that He is the Son of God, that He died for your sins, and that He rose physically from the dead. Indeed, we read in Romans 4:5, "But to him who does not work but believes on Him who justifies the ungodly, his faith is accounted for righteousness."

Friend, will you come to Jesus now? The following is a suggested confession of faith. May it express your internal decision to trust Christ as Savior:

"Father in Heaven, I have sinned against you. I have not glorified you, I have not honored you, and I have gone my own way, even when inwardly I knew better. I am guilty before you, an eternal God, and deserve eternal punishment. However, I believe your Word, that Jesus Christ is your Son and that His death paid off my judgment. I believe He rose physically from the dead after three days, is alive today in Heaven, and

has the authority and power to forgive me from my sins, saving me from the penalty they incurred. I am relying on Your Son, the Lord Jesus Christ, to forgive my sins and to give me eternal life. Thank you. I come to you In the name of Your Son, Jesus Christ, Amen.
"

"Thanks be to God for His indescribable gift!" 2 Corinthians 9:15

Table 1. The Products of Miller's Experiment

Compound	Relative Yield	Classification
Formic acid	233	Contaminant
Glycine	63	Water-repelling amino acid
Glycolic acid	56	Contaminant
Alanine	34	Water-repelling amino acid
Lactic acid	31	Contaminant
Acetic acid	15	Contaminant
beta-Alanine	15	Water-repelling amino acid
Propionic acid	13	Contaminant
butyric acid	10	Contaminant
Iminodiacetic acid	5.5	Contaminant
Sarcosine	5	Contaminant
Succinic acid	4	Contaminant
Urea	2	Contaminant
N-Methyl urea	1.5	Contaminant
Iminoacetic-propionic acid		
	1.5	Contaminant
N-Methylalanine	1	Contaminant
Glutamic acid	0.6	Water-attracting amino acid
Aspartic acid	0.4	Water-attracting amino acid

Compound and Yield from Miller, 1959.
 Classification by the Author.

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¹ The pattern of Abiogenetic Disconnects as well as its relationship to entropy discussed herein is of my own observation. It was first announced and defined publically at a creation science seminar at the Conservative Theological University in Jacksonville, FL on February 23, 2013.

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