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EVOLUTION OR CREATION?

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INTRODUCTION

These questions and answers are designed to enable the reader to see as easily as possible something of the scientific evidence in support of creation as described in the Bible and the unscientific nature of evolution.

The authors have drawn on the findings and thinking of both creation scientists and evolutionary scientists and have tried at all times to fairly and accurately represent the scientific evidence. The questions have been carefully chosen to cover the main queries that arise with respect to the creation/evolution debate.

We believe that the Bible is the Word of Almighty God and is completely trustworthy and true on all matters upon which it speaks, including creation. Our aim is to see the truth of the Biblical account of creation spread as widely as possible. It is our contention that the media unfairly present evolution as the only possible theory of origins, and that creation science is never accorded comparable coverage. The balance needs to be redressed, and this booklet has been written with that purpose in mind. We believe that evolutionary dogma is both unscientific and wrong, and that the Biblical account of our origins is the true one. Our hope is that the information presented here will help both Christians and non-Christians to see the errors of evolutionary thought and the truth of creation science. All the Bible quotations are taken from the Holy Bible, King James (Authorized) Version.

This material was originally written in 1996 by Stort Valley Creation Group—a local creation group in the UK—and has been updated several times. It is now administered by Creation Resources Trust, who can help with further information. A book list at

the end contains publications that discuss matters in greater depth. On such a wide range of ever increasing scientific information it is inevitable that there are differing opinions on interpretation of facts, but these shown in *Evolution or Creation?* are the beliefs of Stort Valley Creation Group and are considered sufficiently similar to those of Creation Resources Trust for that organization to agree to administer its further reproduction.

These major international Creation Societies providing material in various languages: Answers in Genesis (AiG) • 2800 Bullittsburg Church Rd.
Petersburg, KY 41080 USA • *www.AnswersInGenesis.com*Answers in Genesis (AiG) • P.O. Box 6302
Acacia Ridge DC, Qld 4110 Australia
Institute for Creation Research (ICR) • P.O. Box 2667

El Cajon, CA USA • *www.icr.org*

EVOLUTION OR CREATION?

1. What is creation?

Creation is the belief that the account of the origin of the universe and of life given in the Bible in Genesis chapters one and two is literally true and accurate in every way. The theory of evolution as an explanation for origins is rejected as incompatible with both the Bible and the scientific evidence. The Biblical account is understood in its plain, literal sense, e.g., a day is of 24 hours duration. Accordingly, all scientific data relating to origins is to be interpreted within this Biblical framework. As a matter of faith, we hold the Bible to be God's infallible and inerrant Word and therefore all science, when properly understood, will inevitably support it. In practice, we find that scientific data overwhelmingly confirms and upholds the account of origins recorded in the Bible.

2. What is evolution?

At its simplest, evolution is a hypothesis which claims that all life has descended with modification from a primitive singlecelled organism in the remote past. The trend has been one of increasing complexity. Originally, the first cell evolved from a preexisting organic "soup" in a primeval ocean, which in turn developed from chance conglomerations of inorganic chemicals. Ultimately, these chemicals themselves were produced by the "Big Bang" origin of the actual universe. Charles Darwin¹ suggested the first plausible mechanism that could supposedly cause evolutionary change-natural selection or "the survival of the fittest." He proposed that small random changes or improvements in individual animals and plants could be "naturally selected" in the struggle for survival and passed on to the next generation, if they conveyed an advantage. Thus over many, many generations new species would emerge as tiny changes accumulated, altering the creature completely. Today, Darwin's theory is called Neo-Darwinism because it has been greatly revised and adapted. It was realized that natural selection in and of itself would not change anything unless it had some raw material, so to speak, to work on. So the concept of mutational change in a creature's genetic makeup was suggested as this raw material. A chance mutation in the DNA that conferred an advantage would be selected and perpetuated, so the theory ran. This apparently solved the problem of where new genetic information to make different and more complex organisms was to come from. However, it was noticed that the fossils do not show any of the transitional creatures and features evolution needs to be true (e.g., a fish becoming an amphibian or a scale becoming a feather). Furthermore, mutations are very rare and evolutionary change requires large numbers all occurring simultaneously in a single animal or plant. To get round this, it was therefore suggested that new types of life evolved almost instantly in a massive frenzy of mutation, e.g., a mother dinosaur would lay an egg that literally hatched out a bird! This was called the "hopeful monster theory." Of course, this is absurd: mutations never add new genetic information; rather genetic information tends to be corrupted or lost when DNA suffers mutational change, as all scientific observation conclusively shows. More recently, the theory of "punctuated equilibrium" has been put forward. This claims that on the geological time-scale evolution happened in short, sharp bursts and so quickly that it left few if any fossils. So here, the lack of evidence for evolution conveniently demonstrates evolution in action! Neo-Darwinism is still the major theory of evolution today.

3. Are evolution and creation scientific theories?

Believe it or not, both evolution and creation are inferences based on circumstantial evidence. In other words, neither is actually a scientific theory. A scientific theory is our attempt to observe, understand, and explain processes and events that are occurring repeatedly in the present within our observation. Such a theory must be testable by repeatable experiments and be capable of being falsified if false. Neither evolution nor creation fulfills these criteria. Both instead are attempts to explain the origin of the universe and of life. And, as by definition the origin of these things is non-repeatable and cannot be observed today, both evolu-

¹ Charles Darwin (1809-1882) – British naturalist who formulated the theory of evolution based on natural selection.

tion and creation cannot be scientific theories. Nevertheless, both systems do possess scientific character, since each attempts to correlate and explain scientific data. So evolution and creation are best viewed as explanatory scientific models that are used to correlate and explain data related to origins. Thus, creation is in every sense just as scientific as evolution. Amazingly, evolution is as religious as creation because as a theory of origins it has both an ideological basis and religious implications. Evolution claims that God is not necessary to origins, that the universe effectively made itself. Such a concept constitutes a worldview that denies a Creator, not from the evidence, but as a fundamental presupposition. This is nothing less than a religious stance, because atheism is a faith that cannot be proved.

4. What is creation science?

Creation science is the name given to the academic discipline that seeks to defend and explain, in purely scientific terms, the creation account recorded in Genesis chapters one and two and the account of Noah's Flood recorded in Genesis chapters six to eight, and to critique evolution theory on scientific grounds. It takes as its starting point the total truth and trustworthiness of the Bible, although it also maintains that creation science can be taught purely as science. Highly qualified scientists in many different fields in many different countries would call themselves creation scientists. Several societies and institutions, most notably the Institute of Creation Research in California, USA, exist to propagate scientific creation truth. Creation science is an international and growing movement which each year produces original scientific research and provides popular presentations of creation truth.

5. Is there evidence for an Intelligence behind creation?

Most certainly there is! The Bible states this fact unmistakably—"The heavens declare the glory of God; and the firmament sheweth his handywork" (Psalm 19:1). That "Intelligence" is, of course, the Triune God of the Scriptures, Father, Son, and Holy Spirit, the Sovereign Creator of all things. Romans 1:19-20 says yet more plainly, if anything—God's eternal power and divine nature in creation are so obvious that we are "without excuse." And looking at God's created world, we see order and design all about us. Examine anything as minutely as you may, and always the most intricate and profound evidence of deliberate design emerges. Despite what evolutionists maintain, such order, harmony, and design in nature do not and cannot occur by themselves. It has all been planned and programmed by a supreme Creator. The modern concept of Information Theory bears this out. This theory of the computer age says, to put it bluntly, "If you put garbage in, you'll get garbage out." We are ourselves coded in our DNA as a computer is by a programmer. Chance processes do not produce the fantastic complexity and design of DNA, just as accidental assemblages of computer language cannot program a computer. As Psalm 14:1 puts it, "The fool hath said in his heart, There is no God."

6. Which came first, the chicken or the egg?

In a word, the chicken (*see* Genesis 1:20)! During the Creation Week God created all plant and animal life in a fully developed, mature form, with functioning reproductive organs, capable of reproducing after its kind (*see* Genesis 1:11-12, 22, 28).

7. Could God have developed life by gradual evolution rather than by an act of creation?

Technically the answer must be yes because God can do anything. But there again, it would be contrary to God's loving character to use such a cruel method as evolution. Genesis chapter one and Exodus 20:11 clearly state that God made all things out of nothing by the power of His spoken Word in a definite period of six, 24 hour days. Therefore, He did not use an evolutionary process.

8. Aren't humans and apes very similar?

Yes and No! Yes, when we remember that God has used a basic "blueprint" for the creation of vertebrates, of which humans and apes are examples. This explains anatomical and genetic similarities. But a resounding No, when we recall that Man is made in the very image of God (*see* Genesis 1:26-27). Actually, there are numerous differences between apes and us: even at the physical level, such as our bipedal upright gait, our opposable thumb, our complex brain with its unique speech center, and much more. Yet what primarily distinguishes us from the animals, apes included, is our God-given spiritual and moral awareness, together with all our myriad intellectual, emotional, and creative capacities. Added to that is our immortal soul, which no animal shares. Genesis 2:7 states that God directly "breathed" into the first man the "breath of life." Then the man became a living being or soul. No animal was made like this. We are of a far higher order of existence, body and soul, than any animal can possibly be.

9. Haven't scientists proved that humans evolved from apes in the last few million years?

No. Evolution theory demands a common ancestor for both apes and humans. The facts demand nothing of the kind. Despite what certain scientists and the media may say, and despite artists' impressions of half-ape and half-human creatures in our daily papers, the "Missing Link" remains just that—missing. All the fossil bones ever found have been either fully human or entirely non-human. Nothing in between exists. In the past, we have had the notorious Piltdown fraud and the solitary pig tooth that was turned into Nebraska Man and wife! Today the situation is altogether confusing to evolutionists, with many possible variations of family tree and little agreement upon any of them! All interpretations are based on a few and fragmentary remains, none of which support the imaginary progression from ape to man. The evolutionist would dearly love to hang any likely fossil bone somewhere on our supposed "evolutionary tree." But Genesis 2:7 is still the truth.

10. How do you account for all the different human races and skin colors?

The Bible is clear that there is only one human race (*see* Acts 17:26), all descended from one pair of original parents (*see* Genesis 3:20). We all share the same skin pigment called melanin, which determines the shade of brown of our skin. The more melanin we have, the darker is our skin. It has been shown genetically that all of today's skin colors could be produced in one or two generations from a pair of mid-brown parents carrying the necessary genetic information. God created Adam and Eve with that necessary genetic information and possibly with mid-brown skin. Racial differences resulted as genetic variety expressed itself and as mankind scattered across the earth from the Tower of Babel (*see* Genesis 11:1-9). Distinct racial groupings emerged as people were divided by language and distance, and as natural selection favored certain racial characteristics, e.g., a dark skin in a hot climate.

11. Where did languages come from?

Originally, from the creative hand of God. Genesis 2:23 shows that Adam had the innate ability to talk. Therefore, language did not evolve from primitive "grunts"! All of today's many languages are the result of God's judgment on mankind's rebellion at the Tower of Babel (*see* Genesis 11:1-9). God "confused" the single, original language everyone spoke and scattered Man across the face of the earth. Increasing distance and passing time ensured that languages continuously became more and more diverse and different.

12. What do linguists say about the origin of language?

Most linguists simply assume that human language and the accompanying vocal "machinery" evolved from our supposed apelike ancestors. Yet ancient languages were more complex, not less so, than most modern-day ones. In a sense, language has deteriorated rather than evolved during recorded history. The newborn human infant has the innate ability to acquire its native language rapidly, whatever it may be. The eminent linguist Professor A. N. Chomsky,² recognizing this fact, has stated his conclusion that there is no more reason to believe in the evolution of language than there is for, quote, "assuming an evolutionary development from breathing to walking." And Professor Chomsky is not a creationist!

13. Is the Bible as accurate as science?

The Bible, being the very Word of Almighty God, is by definition without error and does not mislead in respect of any matter upon which it touches, whether it be spiritual and moral or historical and scientific (*see* 2 Timothy 3:16). Science, on the other hand, is the work of fallible human beings whose knowledge is never more than partial. A clear difference must also be made between what is actually an established fact, accepted by everyone as undoubtedly true, and what is mere scientific theory open to debate and correction. Facts are facts, but theories come and go. Unfortunately, the general public is often presented with theory as if it were fact. This happens all the time in the media with evolution theory, which is presented as what it is not: established fact. Scientific theories can only approximate reality and have to be continually revised, or even rejected, in the light of new discoveries. For example, the theory of Spontaneous Generation once confidently stated that life comes from non-life, e.g., rotting meat naturally produces maggots. Ironically, this concept of life from non-life has resurfaced in the highly respectable garb of evolution. It should be noted that God has not deemed it necessary to revise His eternal Word in the light of new scientific discovery!

14. Why should we believe the Bible rather than scientists?

Of course, we believe them both when they both agree. But we believe the Bible primarily for two main reasons: 1) its author is God, Who cannot lie (*see* 1 Samuel 15:29) and, 2) all the evidence supports it. For example, not a single verifiable historical fact in the Bible has ever been disproved. Countless archaeological discoveries have confirmed repeatedly the accuracy of both Old and New Testaments. And supremely, many prophecies relating to the Messiah in the Old Testament have been literally fulfilled in the Person of Jesus Christ in the New Testament. (It has been calculated that to fulfill just 8 of the 61 major Messianic prophecies in any one man is one chance in 100,000,000,000,000,000]) To think that scientists are impartial seekers after truth is a common mistake. In reality, like us all, they have their own biases, prejudices, and particular worldviews, which they bring to their scientific work. For example, a scientist who is a militant atheist (and many leading evolutionists are) can never accept that God either exists or made the world, whereas a Christian can never accept the opposite! So the crunch is, which worldview best fits the evidence? We believe that of the Christian does, based upon the Bible. And down the years many eminent scientists, scholars, historians, and archaeologists have written books saying just the same.

15. Does it matter whether Genesis is literally true or not?

Yes. The book of Genesis lays the foundation for the rest of the Bible. It records the creation and mankind's fall into sin. It also tells of the promise of salvation in Christ that the rest of the Bible is all about (*see* Genesis 3:15). Without Genesis, the Bible does not make sense. Romans 5:12, 18-19, and 1 Corinthians 15:21-22, state that the Lord Jesus came to restore what Adam lost. The Lord Jesus is actually called the "last Adam" in 1 Corinthians 15:45. If Adam never existed or never sinned, the Lord Jesus need never have come. No Adam, no Christ!

² A. Noam Chomsky (born 1928) – American linguist who revolutionized the study of language with his theory of generative grammar.

16. Did the Lord Jesus Christ believe in Adam and Eve and Noah's Flood?

Yes. The Lord Jesus Christ regarded the Old Testament Scriptures as completely true and trustworthy, quoting from them frequently. In particular, in Matthew 19:4-6, He refers to Adam and Eve as real people; and in Matthew 24:37-39, He speaks of Noah and the Flood as an example of God's judgment in history.

17. Do Genesis chapters one and two contradict each other?

No. The two chapters are complementary, not contradictory. The nar-rative is so arranged that chapter one gives the divine "overview" of the whole of the Creation Week. Only God Himself could provide such information. Chapter two is a more detailed account of the creation of the first man and woman and of the Garden of Eden. This record concentrates on the human beings. In the light of such an understanding of the relationship of these two chapters, any apparent discrepancies are easily harmonized. And just to confirm that this is true, the Lord Jesus Himself quoted from both chapters in the same breath. He did not pause to explain that they contradicted one another! (*See* Matthew 19:4-5).

18. Doesn't the Hebrew word for "day" in Genesis chapter one also mean a period of time longer than 24 hours?

Very frequently, critics of a literal interpretation of the creation account in Genesis chapter one point out that the Hebrew word for day, "yom," does not always mean a 24-hour period. Thus, they say, each "day" of creation could have been many millions of years long, allowing for some kind of evolution to take place during each "day." Alternatively, perhaps "day" is meant only to be symbolic, and the account is not to be taken literally. It is indeed true that "yom" does not always mean a literal day, but it all depends on the context. In Hebrew, "yom" may mean an ordinary 24-hour day, the daylight part of a day-night cycle, or an indefinite period of time. But when "yom" is used with a clear beginning and ending (such as "evening" and "morning" as in Genesis chapter one), or has an ordinal number to distinguish it from other days ("first" day, "second" day, etc., again as in Genesis chapter one), it always means an ordinary 24-hour day. The creation account in Genesis, of course, records each successive day in precisely this manner, identifying each as literal without any shadow of a doubt. The great Hebrew scholars (even unbelieving ones) all agree that this is what the author intended to convey. As to it being symbolic, the rule is that a word cannot be used symbolically until its literal meaning is first established. It is obvious, therefore, that "yom" in Genesis chapter one is literal because this is its first use in the Bible. Ultimate confirmation that "yom" is a 24-hour day comes from the Fourth Commandment in Exodus 20:8-11. Here God tells us that He made everything in six days and rested for one, and that we are to copy this pattern, which is the origin of the seven-day week. He could hardly command us to rest for one million years because He had worked for six million years! All the evidence unambiguously supports the "day" of Genesis chapter one as being 24 hours long.

19. What was the "firmament" of Genesis 1:6-8?

One modern translation calls it the "expanse." It seems to correspond to what we call the "sky." Originally, the newly created earth was covered with water. God divided the waters into those below (the seas) and those above. In between them God made the atmosphere or the sky. The Hebrew word means a "spread-out-thinness," and in this context, it appears to be a reference to the atmosphere. As to what the waters above the firmament were, it is possible that they were a vast transparent blanket of water vapour encircling the planet, beyond the atmosphere. Some creation scientists believe this water vapor acted as a protective canopy, guaranteeing a global subtropical climate conducive to a perfect environment on earth. It would appear that God later caused it to completely precipitate in the form of a deluge of rain during Noah's Flood when "the windows of heaven were opened" (Genesis 7:11).

20. Does a six-day creation make scientific sense?

Our God is all-knowing, all-powerful, and of infinite resources. In principle, there is nothing unreasonable or unscientific in such a Creator God making all things in six days or even six seconds (or less!). Bible-believing scientists, who practice their profession on the premise that the Genesis account is sober historical truth, see no clash between a six-day creation and scientific endeavor. Actually, the scientific facts overwhelmingly point to the truth of Genesis chapter one.

21. How could there be light on the first day of the Creation Week if the sun and stars were not created until the fourth day?

God created light on the first day of the Creation Week (*see* Genesis 1:3), but He delayed making any actual light source, such as the sun and stars, until the fourth day (*see* Genesis 1:14-18). Right from the beginning God provided light to illuminate the rotating earth and thus give the familiar alternation of day and night (*see* Genesis 1:4-5). God can create light energy out of nothing just as easily as He made matter out of nothing.

22. Didn't Copernicus³ and Galileo⁴ prove the Bible wrong by showing that the earth moved round the sun?

The Bible gives no explicit teaching on the physical form of the uni-verse. Nowhere does it instruct us that the earth is either flat and immobile or at the center of the cosmos. It does clearly state, however, that the universe and the earth were made in six days and that the earth is spherical (*see* Genesis 1 and Isaiah 40:22). The Church has consistently recognized that the earth is not flat and that God made it as the Biblical record states. Scientific opinion down the centuries has alternated between the earth-centered model of the ancient Greek philosopher Aristotle⁵ (who greatly influenced the Church's thinking); the sun-centered model of Copernicus and Galileo; and the relativistic model developed by Einstein.⁶ Creationism is an entirely separate issue that can co-exist just as happily with any of these models.

23. Wasn't there a "Big Bang," and if so, how does this tie in with the Bible?

The Big Bang theory is still just that, a theory. As a concept, it dominates astronomy. However, the theory has never been without its scientific critics. There are powerful philosophical and technical arguments against the Big Bang. Experts debate them, but laymen find them hard to follow. The theory is cleverly "modified" every time a technical flaw is detected. In effect, the "goal posts" are constantly moved to protect the Big Bang from criticism. As creationists, we hold that the Biblical account of creation is the true one. This describes an ordered, six-day creation of the entire uni-verse by God. The Big Bang theory, requiring an evolving cosmos, cannot be reconciled with the Biblical record. It should be noted that the Big Bang scenario is actually unscientific, in the sense that it defies the universally observed principle of cause and effect, i.e., that every effect requires an adequate cause. The Big Bang is supposed to have happened all by itself, literally out of nothing. Nothing comes of nothing! Furthermore, how can an explosion produce order in the universe? All explosions produce disorder and destruction. So the Big Bang theory flies in the face of science and common sense. Its big attraction to evolutionists, however, is that it purports to explain everything without God.

24. Isn't the speed of light constant at 186,000 miles per second?

The speed of light is regarded as one of the fundamental constants of the universe. However, the scientific literature does include papers discussing what is, in effect, the possibility of a decrease over time in the speed of light. In creation circles in 1983, a scientist published his analysis of measurements of the speed of light spanning three centuries. He concluded that there has indeed been a decrease in the speed of light. The implications for the physical sciences are enormous and lend support to certain aspects of the creationist view, particularly in the areas of the age of the universe and radiometric dating. However, this conclusion remains controversial.

25. Some stars are billions of light years away, so doesn't that prove the universe is really old?

No, it does not. Evolutionists agree that the universe must be extremely old because many stars are so far away that, in some cases, their light must take billions of years to reach us. Admittedly, this is problematical for the creationist model of origins, but not beyond solving. Continuing research and discovery may well uncover information that could revolutionize how we understand the universe. For instance, a creationist physicist has suggested that if Einstein's Theory of Relativity is approached with a creationist instead of an evolutionary bias, a quite different set of conclusions emerge from Einstein's formulas, which allow for an immense cosmos and a young earth. This is, however, both complex and controversial, and only the test of time will tell if it is sound. Several other solutions have been suggested which permit a young universe and allow for vast distances. (We should remember, however, that it is conceivable the great distances accepted by astronomers may not be correct, based as they are on some unprovable assumptions.) Theories put forward have included 1) the creation of a "mature" cosmos with light from the stars created "on its way"; 2) the possibility that space is "curved"—so called Riemannian⁷ space—which would mean that light could take a "short cut" and reach the earth from an infinite distance in only 15.71 years; 3) a decrease in the speed of light over time, meaning that it was much faster in the past and so newly created starlight reached the earth almost instantaneously; and 4) so-called "speeded-up stars," involving the temporary speeding up of physical processes in order to bring starlight to earth immediately. The very large distances that appear to be between the earth and the stars do not prove that the universe is old. Much scientific evidence points to a young universe. Our bottom line is the Biblical statement that a "mature," fully functioning universe was made in its entirety during the six days of the Creation Week.

26. Can we calculate from the Bible when Adam was created?

Using the information in certain parts of the Bible (such as Genesis chapters 5 and 11), it is possible to work out a probable time-scale from the moment of creation until today. Debate about how exactly to interpret some of these passages (and certain

³ Nicolaus Copernicus (1473-1543) – Polish astronomer who advanced the theory that the earth and other planets revolve around the sun.

⁴ Galileo Galilei (1564-1642) – Italian astronomer and physicist, who was the first to use a telescope to study the stars (1610). He demonstrated that different weights descend at the same rate; and he was an outspoken advocate of Copernicus's theory that the sun forms the center of the universe, which led to his persecution and imprisonment by the Inquisition (1633).

⁵ Aristotle (384-322 BC) – Greek philosopher, pupil of Plato, the tutor of Alexander the Great, and the author of works on logic, metaphysics, ethics, natural sciences, politics, and poetics.

⁶ Albert Einstein (1879-1955) – German-born American physicist whose special and general theories of relativity revolutionized modern thought on the nature of space and time.

⁷ Riemannian – named for Georg Friedrich Bernhard Riemann (1826-1866), a German mathematician, who developed a system of geometry that aided the development of modern theoretical physics.

other considerations) does prevent unanimous agreement on a precise date for creation. However, what is clear from the Bible is that the creation of the universe, the earth, and Adam was only a few thousand years ago. Some would say about 6,000 years, others a bit more. In no way does the Bible allow for all the millions and billions of years of evolutionary theory. No fact, as opposed to theory, of science exists to disprove this Biblical time-scale. Actually, quite the contrary—there is much scientific evidence for a "young" earth.

27. Was there death before the Fall of Adam and Eve?

No...God made a world that He declared "very good" (Genesis 1:31), not the world of disease, suffering and death we see today. Both people and animals were originally vegetarian (*see* Genesis 1:29-30). Meat eating developed later because of the Fall. It should be noted also that Biblically speaking plants are not "living"; that is, they do not possess a "living soul" as humans and animals do, (*see* Genesis 1:20-21, 24). Death was the divine punishment inflicted because of the Fall (*see* Genesis 2:17; 3:19), a death and a curse that tragically extended to the whole of creation (*see* Genesis 3:14-19; Romans 5:12). What is more, the New Testament is clear that death is our enemy (*see* 1 Corinthians 15:26), which the Lord Jesus came to destroy by His own death and resurrection (*see* 1 Corinthians 15:51-57 and Revelation 21:4).

28. Many animals are naturally meat eating, so surely there must have been death and suffering before the Fall of Adam?

Offensive and defensive organs and structures (e.g., sharp teeth, claws, poisonous fangs) had no place in the perfect world God originally created. Mankind and the animals were made to be vegetarian (*see* Genesis 1:29-30). Death and suffering just did not exist in the beginning. These only entered the world when Adam sinned and fell (*see* Romans 5:12). So in some way not completely clear to us, certain animals changed genetically because of the Fall and became meat-eaters. This was all part of God's "curse" on a fallen world (*see* Genesis 3:17-19). There are two possible scenarios to explain this. Before the Fall, there may have been organs and structures that had an entirely harmless function, which after the Fall, under God's divine influence, altered their use and became what we recognize as offensive and defensive features. Alternatively or in addition, God may have "modified" what are now carnivorous animals (and plants) in a similar manner to how He "modified" the serpent, Eve, and plant life (*see* Genesis 3:14 and 16-19).

29. Where is the Garden of Eden now?

Adam and Eve were exiled from the Garden of Eden because of their sin, and entrance to it was prevented by an angelic guard (*see* Genesis 3:23-24). Today the Garden does not exist. The global catastrophe of Noah's Flood was such that the geographical and geological structure of the earth's crust was completely reworked and refigured. The original land mass or masses and seas were entirely changed, destroying the world of that time (*see* 2 Peter 3:6). The world that emerged from the Flood was essentially the world we know today. Thus, the Garden of Eden was obliterated forever.

30. Where did Cain get his wife?

Adam and Eve were commanded by God to increase in number and fill the earth with offspring (*see* Genesis 1:28). Moreover, the Bible explicitly states that Eve was "the mother of all living" (Genesis 3:20). Adam lived to be 930 years old and had many children (*see* Genesis 5:3-5). Now it seems that Cain was Adam's first son (*see* Genesis 4:1). The obvious conclusion is that Cain eventually married either a sister or a niece. Such a marriage was not forbidden at this epoch in our history because the race was still young and vigorous and not yet burdened by genetically induced disability and disease. Thus, there was no danger of producing "inbred" offspring by marrying a close relative.

31. Did Lot's wife really get buried in a pillar of salt?

Geologically the Dead Sea area is fascinating. It displays unmistakable evidence of volcanic activity and earthquakes and contains great deposits of combustible materials such as oil, asphalt, natural gas, and sulfur. Salt is also abundant, often occurring in "pillars," some of which have been nicknamed "Lot's wife" by local Arabs. There is no geological or archaeological reason why the Biblical account of the sudden destruction of Sodom and Gomorrah in Genesis 19 should not be accepted as historical fact. As to Lot's wife, it would seem from a careful reading of the Hebrew that she deliberately hung back behind her fleeing family in disobedience to God and was either completely buried by great quantities of salt thrown up into the air by massive explosions down on the plain of Sodom, or engulfed by volcanic ash and later petrified in the same manner as the victims of Pompeii in A.D. 79.

32. Do you really believe the Patriarchs lived hundreds of years?

Yes. Originally, human beings were designed to live forever! Science is still baffled by the ageing process: it is a mystery why it happens at all. Prior to Noah's Flood, lifespans were much greater, according to Genesis chapter 5. After the Flood, lifespans gradually began to reduce, as witnessed by Genesis 11:10-32 and the subsequent [lives] of men such as Abraham, Isaac, Jacob, Moses, and David. Ageing and death were the divine penalty inflicted on Adam and his posterity in the wake of Adam's sin (*see* Genesis 2:17; 3:19; 5:5). The main reasons for longer lifespans before the Flood are probably twofold: first, the race was physiologically far healthier, without the burden of accumulated harmful mutations that we have to put up with today. Second, the climate and general living conditions were vastly better, as indicated by the geological and fossil evidence of a global sub-tropical environment prior to Noah's Flood.

33. Where do cave men and Neanderthal Man fit into the Bible?

Rather than being primitive ancestors of modern Man, these groups of people were fully human. Early discoveries of their remains were fitted into a theoretical evolutionary sequence from "ape to Man." But today, even leading evolutionists admit they were racial varieties of modern humans. In addition, it seems that disease and environmental pressures may have had significant effects on their appearance. Biblically speaking, we would place them relatively shortly after Noah's Flood. The descendants of Noah had to start from scratch, so to speak. Genesis 11:1-9 records their scattering across the earth, an earth where the pre-Flood civilization and global sub-tropical climate had been destroyed. Cave dwelling became a practical necessity for some in this new, harsher environment.

34. Where do the Ice Ages fit into the Bible?

Geologists disagree on how many Ice Ages there were, but do concur that the end of the last one was around 10,000 years ago. Creationists maintain that this time-scale is too long, and instead suggest that there was only one Ice Age, which occurred as a direct result of Noah's Flood. Briefly, recent research by creationist meteorologists has demonstrated that huge polar ice caps could have developed within 500 years of the Flood. This would have happened due to a great reduction in sunlight caused by the volcanic ash and blanketing cloud that remained in the atmosphere after the Flood. Surprisingly, it is not sheer cold that triggers an ice age but cool summers. Because of reduced sunlight, cool summers would have meant that winter snow did not melt, but continued to accumulate year by year. This process would have been greatly accelerated by the fact that the presence of volcanic particles in the atmosphere is known to increase precipitation. The ultimate result would have been extensive polar ice caps and huge glaciers—in fact, the Ice Age. The ice would then have finally retreated some considerable time after the Flood as the atmosphere slowly cleared and sunlight was able to penetrate more effectively.

35. What is the Gap Theory?

This was a 19th century attempt to harmonize science and Scripture at a time when many Christians mistakenly believed that science had proved the earth was far older than the Bible chronology could accommodate. It was suggested that a long, indeterminate time existed between Genesis chapter one, verse one and verse two. All the millions of years of geological time could be relegated to this "gap." The theory went on to propose that an ancient world existed in this gap that was eventually destroyed by God, resulting in the geological and fossil record contained in the earth's crust. Then in verse two God made the world as we know it today in a literal six-day re-creation. This theory, however, gravely distorts Scripture and is unnecessary to explain the geological and fossil evidence. Noah's Flood more than adequately accounts for the scientific facts of a worldwide, watery catastrophe. Furthermore, to have an ancient world full of death and struggle before Adam's fall into sin empties the Gospel of its true meaning—the Lord Jesus Christ came to die because death entered the world through Adam's sin.

36. Was Noah's Flood global or local in extent?

The Bible is clear that Noah's Flood was global in extent, i.e., the entire surface of the planet was covered with floodwaters. Some people, Christians amongst them, have tried to suggest that the Flood was local in extent. But this flies in the face of plain Biblical statements to the effect that God had decided to use a worldwide flood to destroy all mankind (except eight people) and most of the animal life with them because of sin. (See for example Genesis 6:5-8, 11-17; 7:4, 12, 17-24.) The whole tenor of the account is that the entire world was drowned and only Noah and his family survived. Much Biblical evidence can be brought forward to prove this. For instance, the Bible says the floodwaters covered the highest mountains to a sufficient depth for the Ark to float above them; the Flood prevailed for five months, taking an additional seven months to abate; the Ark was built with a capacity of something like 1.400,000 cubic feet, a ludicrously large vessel merely to escape a local flood. And why embark all those wild animals if the Flood was local? Other animals, migrating in afterwards, could have quickly re-populated the area. Standing firmly on this Scriptural foundation, we can then look to see if there is any evidence of a global flood in the world's rocks. Not surprisingly, there is massive evidence, which when properly understood is much better interpreted within the global flood framework than anything else. This evidence consists of the obviously catastrophic origin of so much of the earth's crust. Only colossally destructive floodwaters can adequately explain many geological features. The great thicknesses of sedimentary rocks across the entire world (almost all laid down in water originally) contain perhaps the most poignant testimony to Noah's Flood. They hold literally billions upon billions of fossil animals and plants. No continent or land mass is without this silent testimony to God's power to judge mankind.

37. Did it rain before Noah's Flood?

No, according to Genesis 2:4-6. Prior to the Flood, rain as we understand it was apparently unknown. Underground sources, possibly some kind of mist or streams, watered or irrigated the earth. It is conceivable that these subterranean water sources had something to do with the "fountains of the great deep" that burst forth to flood the earth in Genesis 7:11. The implication of Genesis chapters 6 to 9 would appear to be that mankind had never experienced rain before and consequently regarded the threat of a global flood as nonsense. In Genesis 7:11-12, the "windows of heaven were opened. And the rain was upon the earth…" And in Genesis 9:13-16, the rainbow is seen for the first time, a special reminder for us that God will never flood the whole earth again. The water cycle of the present world (evaporation from large bodies of water and its subsequent precipitation from clouds as rain, snow, etc.) is a product of post-Flood climatic conditions.

38. How could any boat possibly survive an overwhelming flood?

Noah's Ark was not "any boat"! In fact, "boat" is probably a misnomer. It was a box-shaped vessel, so "barge" might be a better term. However, it was never designed to propel itself, but merely to float. The instructions given by God for the Ark's construction in Genesis chapter 6 are very precise and include a direction to waterproof the Ark "within and without" by covering it with pitch (verse 14). Modern laboratory research has demonstrated that the shape and dimensions of the Ark gave the vessel maximum stability in the most turbulent of waters: a ratio of 6:1 (*see* verse 15). Experiments have also shown that such a vessel would always right itself even if tossed to a full 80-degree roll. The Ark was obviously designed by God to survive an overwhelming flood.

39. Where did all the floodwater go?

According to Genesis 7:11, a colossal quantity of water was released upon the earth during Noah's Flood. This came from both subterranean reservoirs (the "fountains of the great deep") and from what was probably a vast water vapor canopy enveloping the earth ("the windows of heaven"). The yearlong crustal upheavals associated with the Flood left the earth with a completely different geography and topography. During this period creationists postulate that immense ocean basins were formed, or existing ones were deepened, which collected the "run-off" from the continents. The Atlantic and Pacific Oceans would be two of these great basins. So all the floodwater was contained in newly formed or deepened ocean basins. Possibly Psalm 104:5-9 is a poetic record of the Flood and subsequent drainage of the waters into the oceans (*see* especially verse 8).

40. If the mountains of Ararat were the highest mountains in Noah's time, how do you explain the Himalayas being twice as high?

The Bible does not say that the Ararat range were the highest mountains in Noah's day, it merely states that the Ark grounded on them (*see* Genesis 8:4), probably on Ararat itself. Genesis 7:19-20 also records that the Flood covered the highest mountains of the day. It is possible that both the Ararat and Himalayan ranges were formed by tremendous upheavals in the earth's crust during the Flood. In which case, either the Himalayas have continued to be uplifted since that time, or Ararat was the only range in the vicinity of the Ark. (Genesis 8:5 is a reference to the Ararat range, not the mountains of the entire world.)

41. How did God get the animals onto Noah's Ark?

The Bible does not tell us how God brought the animals to the Ark, but only that He did (*see* Genesis 7:8-9, 14-16). We know that animals, especially birds, do have the ability to migrate and find their way over great distances. Possibly God utilized this same instinct to bring them to the Ark. Nevertheless, this event must be seen as one of marvelous divine power. Incidentally, these individual animals probably represented the most suitable from a genetic viewpoint to repopulate the earth when the Flood finally subsided.

42. Did the animals enter the Ark two by two or seven by seven?

Both! A careful reading of the narrative in Genesis 7:2-3 and 8-9 shows that the animals were divided into two classes, the "clean" and the "not clean." Of clean animals, there were seven or possibly seven pairs; of unclean animals, there were two, i.e., one pair. The pairs were to be a male and a female. Obviously, the clean/unclean distinction existed at that time and may have corresponded to the later explicit teaching of Leviticus chapter 11. Generally speaking, clean animals were suitable for sacrifice to God and for consumption by Man, and unclean for neither purpose. More pairs of clean animals would be required after the Flood to build up stocks. Noah actually made a sacrifice of clean animals and birds immediately after the Flood in thanksgiving to God (*see* Genesis 8:20).

43. How could there be room enough for all the animals on the Ark?

It has been calculated that the Ark could have held 432 double-decker buses or 125,280 sheep! Not only was the Ark enormous with three separate deck levels (*see* Genesis 6:15-16), but nothing bigger was built until Brunel's⁸ "Great Eastern" of 1854, which was made of iron. In the well-known book *The Genesis Flood*, Drs. Whitcomb and Morris worked out that the average size of all animals on earth is that of a sheep, and that the Ark could have contained 125,280 sheep. Now the Ark only needed to hold airbreathing land animals, since those that lived in water could survive outside. Using the expert estimate of 17,600 different kinds of air-breathing land animals on the earth today, and doubling it for male and female, we get 35,200. If we double it again to account for extinct animals, the total is still only 70,400. Remember, on average these animals take up the room of 70,400 sheep. As the Ark could have carried 125,280 sheep, it is clear that there would have been plenty of room. No doubt, very large animals were represented by their smaller young. Regarding the so-called clean animals of Genesis 7:2-3 that entered the Ark by sevens, they were probably very much in the minority and used for domestic and sacrificial purposes. Even finding space for a million or so species of insect (the equivalent of another 5000 sheep) and food for everything (*see* Genesis 6:21), the Ark remains more than adequate for its task.

⁸ Isambard Kingdom Brunel (1806-1859) – British civil and mechanical engineer, who designed the "Great Eastern," a steamship considered the prototype of the modern ocean liner. The Great Eastern was the largest ship in the world at its launching (1858), measuring 692 feet (211 meters). The first ship to use a double iron hull, it was unsurpassed in size for 40 years.

44. Were dinosaurs on the Ark?

It is clear from Genesis 6:19-20 that God commanded Noah to take representatives of all living land creatures on board the Ark. Creationists believe that the dinosaur fossils found all over the world were very largely formed during Noah's Flood. The logical inference is therefore that there were indeed land dwelling dinosaurs on the Ark. To the modern mind educated in evolutionary concepts from childhood, such a conclusion is difficult to accept. Nevertheless, the Biblical data seems to demand such a conclusion, as amazing as that may be to us today. Probably younger, smaller specimens were chosen for inclusion on the Ark.

45. Did dinosaurs survive the Flood?

Those dinosaur representatives taken aboard the Ark obviously did emerge into the post-Flood world. The fact that dinosaurs have not overrun the world suggests that the environment after the Flood was not suitable for them to efficiently reproduce and spread. Creationists have conjectured that the loss of the global sub-tropical climate prior to the Flood greatly contributed to the ultimate demise of the dinosaurs. No doubt, other environmental factors were involved as well. But having said all that, there is good evidence that dinosaur-like creatures did indeed survive into modern times. Throughout the ages, mankind has always told stories about dragons, sea serpents, and various monsters. On close examination, these animals often bear a remarkable resemblance to reconstructed fossils of dinosaurs in our museums, even in fine details such as scales, spikes, horns, and wings. Some of these stories are pure legend, but others appear to be accurate eyewitness accounts since incorporated into an exciting tale. Interestingly, the book of Job, chapters 40 and 41, describes two great creatures—Behemoth and Leviathan—in terms more applicable to dinosaurs than any animal known today.

46. Is there any evidence that dinosaurs still exist today?

Persistent rumors continue to circulate about a mysterious dinosaur-like creature in remote areas of the Congo swamps. There have even been expeditions to find it. Of course, there is always the Loch Ness Monster in Scotland—not actually a dinosaur because, as far as anyone can tell, it is wholly aquatic, and dinosaurs all lived on land. Nevertheless, it is most intriguing; maybe it is there, maybe not! Reports of other so-called "lake monsters" come from Canada, Japan and Sweden. As to the famed "Great Sea Serpent," the legendary terror of sailors of old, could this possibly have been a plesiosaur—a marine reptile contemporary with the dinosaurs, according to the fossil record?

47. How could plant life survive a worldwide flood?

Plant life is incredibly resilient. It has all kinds of amazing "strategies" for survival and propagation. During the yearlong Flood, many kinds may have survived as floating mats or rafts of vegetation. Others may have been buried near the surface of the ground and sprung to life as soon as the waters subsided. Masses of seeds in various forms could easily have floated and then geminated all over the world when the conditions allowed. Some people have objected that the salt content of the oceans would have destroyed any plant life. However, this is to assume the seas before the Flood were as salty as now. Saltiness may well be a result of the Flood. Or the colossal amounts of water released during the Flood (*see* Genesis 7:11-12) may well have temporarily diluted the saltiness of the seas, enabling plant life to survive that much more easily. The olive leaf of Genesis 8:11 was obviously plucked off a living specimen. Prior to this God had begun the process of reducing the floodwaters (*see* Genesis 8:1-5). In that time, a young olive could have taken root from a floating branch and produced leaves, much like a "cutting" does today. The olive tree is virtually indestructible and quickly responds to favorable conditions even after years of neglect in the poorest of soils.

48. Doesn't the anteater prove the story of Noah's Ark to be nonsense? As it only eats ants, it could have survived only by gobbling up all the ants, and then there would be none!

This is a good question. No doubt, it could be asked about a number of other creatures that feed on a very limited diet. Creationists do not pretend to know all the answers; some questions may never be satisfactorily answered. Research is always going on; and as new biological insights become available, previously difficult questions find a solution. Ask an expert on the anteater, and he will have to admit that the fossils do not demonstrate anteater evolution. So it is conceivable that the ancestors of the modern anteaters that came off the Ark were in fact less specialized animals. Exclusive ant eating may have developed in subsequent generations. The gene pools of these creatures may have "thinned out," as the scientists say, resulting in a loss of genetic information as they became increasingly specialized. This is more like degeneration than evolution, of course. A parallel example would be breeding specialized pedigree dogs from what was originally a less specialized kind of dog. The creation account in Genesis chapter one clearly talks of created "kinds" or groups of related animals. From these all other animals subsequently descended, as the originally created genetic information in the "kinds" was channeled into more and different, but still related, types of creature. Today's anteater may be the result of such a process, and possibly a degenerative result at that.

49. Why do we find kangaroo fossils in Australia, and then some-how they go back to the very same place after the Flood?

The same question could be asked about many other uniquely Australian marsupials. But no one can prove that kangaroos and other marsupials were always confined to Australia in the past, or that the Australian fossils of them result from Noah's Flood. The world was utterly changed by the Flood, and the continent of Australia may well have been one of the results. Before the Flood, marsupials could have inhabited the whole globe. Indeed their fossils have been found in Europe, and living marsupials (the opos-

sums) are abundant in the Americas. When the animals left the Ark, they began to multiply and migrate (*see* Genesis 8:15-17). The ancestors of Australia's marsupials were probably out-competed by other mammals and were forced to keep moving. They left no fossil remains on their route because fossils form only under rare and special conditions (such as a flood!). Generation by generation growing populations would move further and further to avoid competition and find food and shelter. Finally, they reached Australia, presumably over a land bridge from Asia, which was later covered by the sea before the other mammals managed to reach Australia as well. Isolated on their island continent, these marsupials were left in peace to develop into the unique array of animals we see today. The fossils we now find of them in Australia could easily have been formed after the Flood during localized catastrophes on the Australian continent.

50. Don't the many layers of sedimentary rocks prove that rock formation took millions of years?

No. Almost all sedimentary rocks have formed under water. Traditionally, evolutionary geologists have regarded such rock formation as a slow and gradual process, occupying in total many millions of years. However, in reality these rocks show unmistakable evidence of rapid formation in violently disturbed conditions. Creationists have always regarded this fact as clear confirmation of Noah's Flood—the colossal floodwaters laid down sediments all over the world, which later hardened into solid layers of rock. Increasingly today, evolutionary geologists are beginning to recognize that catastrophic processes may have been responsible for at least some geological formations. For example, the Grand Canyon is now seen as possibly the result of the breaching of a natural dam in the remote past. Certain geologists are even speaking of rapid episodes of sedimentary rock formation interspersed by long periods of time—thus the ancient age for the earth is in the invisible and unprovable "time gaps" between rock layers! The creationist sees all this as a futile attempt to ignore the obvious—the world's sedimentary rocks are largely the result of the Flood described in Genesis chapters 6 to 8. Perhaps the clearest proof that these rocks were laid down very quickly are the many billions of fossils they contain. A fossil cannot form unless the creature is immediately buried. The creationist scenario of a worldwide flood burying countless animals in layers of sediment, which then hardened into rock, fits the facts far better. We believe that sedimentary rock layers are not evidence of an ancient earth, but the result of a relatively recent global watery catastrophe.

51. Doesn't the fossil record show that first there were simple life forms, then fish, then amphibians, then reptiles, then mammals, and finally Man?

No. The fossil record shows a sequence of animal and plant life that evolutionists interpret as one of simple to more complex. However, the fossil record also shows that even the so-called simple organisms are highly complex and appear fully formed with no ancestors. Moreover, no intermediate forms bridging different types of life exist. We would expect to find countless partially evolved creatures in the fossil record if evolution were true. Evolution is supposed to proceed by innumerable small changes accumulating very slowly, so there should be literally millions of "missing links" in our museums. Of course, there are none. In fact, the fossil record is the very worst witness to evolution. A far better explanation for the fossils is the worldwide catastrophic flood of Genesis chapters 6 to 8. This would have suddenly buried vast numbers of animals—ideal conditions for fossilization. The resulting rock strata would then contain the record of a living world buried according to ecological habitats, i.e., first sea bottom creatures, then fish, then land animals, etc. The evolutionist has wrongly interpreted rock and fossil formation as taking millions of years, and as revealing the slow evolution of life from simple to complex. In reality, it is the record of a drowned world.

52. Isn't it true that radiometric dating methods give ancient dates for rocks?

Radiometric dating is a highly technical method that purports to date rocks. It is applicable only to igneous rocks. These have emerged from the hot interior of the earth in a molten state and cooled (e.g., granite). Often they contain radioactive elements in very small amounts. In essence, those who claim great ages for these rocks are simply measuring the quantity of radioactive element within the rocks as it gradually loses its radioactivity and changes to a non-radioactive element (e.g., uranium to lead, and potassium to argon). The ages obtained range from millions to billions of years old. However, scientists who happily accept these ages must first make a series of highly debatable assumptions without which the method cannot be used. They assume 1) that none of the non-radioactive element was already present; 2) that there has been no loss of the radioactive element by, for instance, leakage or weathering; and 3) that radioactive decay rates have always been the same. Published measurements show gross inconsistencies. For example, lava flows from off Hawaii in 1800 have rendered dates ranging from 160 million to 2,960 million years old! Such methods are obviously unacceptably unreliable and would have been dropped long ago had it not been for evolutionary dogma.

53. What is carbon 14 dating?

Carbon 14, or radiocarbon, dating is a method of radioactively dating, not rocks, but dead organic tissue, both plant and animal, deemed to be less than 50,000 years old. Carbon 14 is a radioactive substance occurring naturally in both the atmosphere and all living and dead organisms. It decays radioactively at a presumed known rate; thus, theoretically, it can be used to date when a creature died. Put very simply, the less carbon 14 in a sample, so the theory runs, the older it must be. However, this method makes six very large and unprovable assumptions, which scientific evidence suggests may be wrong. Furthermore, these must all be valid if the method is to be accurate. These assumptions all relate to establishing the past levels of carbon 14 in both the atmosphere and in the organisms before and after death. They lean heavily on the further underlying evolutionary assumption that the earth is mil-

lions of years old. If the earth is only thousands of years old, as indicated by the Bible, then this dating method is effectively invalidated, and its dates are far too old. Newly dead animals have been dated at several thousand years old by this method, highlighting the possible inaccuracies involved in dating a long dead sample. Amazingly, the only dates obtained that can be genuinely verified by correlation with other archaeological dating methods, go back no further than 5,000 years. This fits in remarkably well with the Biblical time-scale for history.

54. What is the geological column?

The earth's surface is extensively covered to a great depth by many layers of sedimentary rock one on top of the other. Since the early 1800s, these layers have been studied, correlated, and mapped, both by creationist and by evolutionary geologists. The result is the "geological column." Based on the fossils in these different layers of rock, the evolutionist interprets the column as evidence for the evolution of life from simple to more complex over some 600 million years or so because the more simple seem to be in the lower layers. Although the evolutionist regards the fossils in the lower layers as simple compared to those in the higher layers, in fact there is nothing at all "simple" about these creatures! They are merely designed for marine environments. The trilobite, for example, a sea bottom animal, had an extremely complex compound eye. The creationist, however, sees the column as very largely the result of Noah's Flood (see Genesis chapters 6 to 8). Significantly for the creationist, the world's sedimentary rocks have nearly all been laid down in water, in exceedingly violent conditions, i.e., in what looks suspiciously like a global flood. Moreover, the billions of fossils contained in these rocks show clear evidence of the sudden and simultaneous death and burial in situ⁹ of countless living creatures by flood-borne deposits, while still in their respective ecological habitats; flood deposits that later hardened into many layers of sedimentary rock of various kinds. Thus, there is no progression in the rocks from simple to more complex over time. This is just an evolutionary "interpretation." The fossils can be better explained as the result of rapid burial in a matter of weeks and months during Noah's Flood—buried where these creatures had lived their lives, one layer of fossils on top of the other, from the sea bottom dwellers up through the various marine environments and on to the land dwellers. To the creationist the geological column represents the remains of a drowned world, a world deluged and destroyed by the Biblical Flood, just as God has said in Genesis 6:17.

55. Surely mountains and hills must have been formed many mil-lions of years ago?

This is an assumption of modern evolutionary geologists. They date the earth at 4.6 billion years old and have traditionally regarded all its features as the result of slow, steady processes operating over vast periods of time. Creationist geologists, on the other hand, using Biblical and scientific evidence, typically date the world at between 6,000 and 10,000 years old (some a few thousand years older). They understand much of its geological appearance (including many of its mountains) as produced by the global catastrophe of Noah's Flood, described in Genesis chapters 6 to 8. Such a flood would have involved the disrupting of the earth's crust, huge volcanic disturbances and, probably, the break-up of the original land mass (or masses) into the drifting continents we see today. Mountains and hills could have thus been formed. In support of this catastrophe theory, creationists point to events such as the eruption of Mount St. Helens (USA) in 1980 and 1982: it produced ancient-looking geological features that developed in a matter of weeks and months, including a "mini Grand Canyon." Similarly, Surtsey Island, off Iceland, was formed in a matter of months in 1963 as the direct result of volcanic activity under the Atlantic Ocean. It is now an established island looking as if it has been there for millions of years with high cliffs, sandy beaches, surf-rounded boulders, soil, and plant and animal life. All that developed in just 30 years!

56. Haven't the continents gradually drifted apart over time?

Very probably they have. The shape of the continents does seem to be such that their continental shelves fit together in a kind of "jig-saw" remarkably well. In addition, the rock formations of each continent seem to match up. Doubt does continue in the minds of some scientists, however, over the whole theory, with statements being made by them that the continents do not fit so neatly together as claimed, and that apparent evidence for drift has been misinterpreted. From a creationist viewpoint, it could be argued that there was originally only one great land mass (*see* Genesis 1:9). This could have broken up into the present continents as the result of, or in the aftermath of, Noah's Flood, remembering that the Flood was a devastating global catastrophe that permanently changed the face of the earth. The earth is still recovering from the effects of the Flood and continental drift may well be one of those after effects.

57. Surely, it takes much longer than a few thousand years for mud to solidify into rock?

Lithification, as it is technically called, does not necessary take a very long time to occur. It is a highly complex process involving the interaction of organic matter and various chemicals together with cementing agents. In the unique and catastrophic conditions attending Noah's Flood, lithification would have undoubtedly been greatly aided and accelerated. Genesis chapters 6 to 8 describe a global upheaval that would have released and activated in vast quantities all the required chemicals and agents to facilitate rock formation. The crustal disturbances, which lifted up the huge waterborne deposits into continents and mountains that later became rock, would have enabled the water to drain away under the influence of gravity. Genesis 8:1 refers to a wind that God sent to cause the flood waters to recede, and verses 13 and 14 of the same chapter emphasize that the earth had completely dried out in mere months—an important indication to us that lithification was perhaps occurring very rapidly at that time. In short,

⁹ **in situ** – in the natural or original place.

there is nothing to say that lithification did not proceed at a much faster rate during and after Noah's Flood, owing to the highly unusual and abnormal attendant conditions.

58. Wasn't coal formed in swampy peat bogs millions of years ago?

According to evolutionary theory, the world's great coal measures were largely laid down in the Carboniferous Age, about 300 million years ago. Coal is, the scientists tell us, the remains of vast swampy forests that once flourished in a global sub-tropical climate. Theory says these forests gradually decayed and converted into coal over great periods of time under the influence of heat and pressure. In fact, it is said that one inch of coal takes a thousand years to form. Creationists maintain, on the other hand, that the huge coal reserves of the world were formed rapidly as a direct consequence of Noah's Flood. The catastrophically destructive floodwaters would have torn up and carried away entire forests, depositing them in successive layers with water-borne sediments in between. Coal seams interspersed with rock strata would result. We believe this is a more credible scenario than the evolutionary one. Coal has now been made in the laboratory in a matter of minutes. In addition, the first stages of coal formation are already happening at this moment at the bottom of Spirit Lake, Mount St. Helens, USA, because of the volcanic eruption there in 1980 that swept a huge forest into the lake. And we must not forget that upright fossil tree trunks have been found extending through two or more coal seams supposedly tens of thousands of years apart.

59. How does a fossil form?

It is a cause of constant wonder that the crust of our planet is literally packed with billions of fossils of extinct creatures. These fossils sometimes occur in great "graveyards" of jumbled bones representing many different kinds of animal. Huge shoals of fish lie entombed in rock where they were obviously buried in situ in some catastrophe of the past. There are even whole rock formations that seem to consist almost entirely of single types of shellfish. The colossal chalk, coal and oil deposits of the world are, of course, the remains of once living organisms (oil and coal are termed "fossil fuels"). How did all these fossils ever form? The evolutionary answer has always been-gradually, by natural processes working over the past 600 million years or so. The technicalities of fossilization are well understood, involving as they do the mineralization of bones, teeth, shell, etc. Various kinds of fossil have been preserved, such as whole skeletons, soft parts such as skin and hair, footprints, and even raindrops. But the overriding requirement for a fossil to form is that a dead animal is quickly buried by sediment. Otherwise, it rapidly decomposes or scavengers leave nothing to fossilize. Today fossil formation is a rare thing. Nothing remotely comparable to what must have happened in the past is going on. So if "the present is the key to the past" as evolutionary geologists maintain, why do fossils not form in quantity today? And how did such a mind-bogglingly vast array of fossils ever come to fill both our museums and the rocks about us? Surely, it is extremely inadequate to suggest that all these fossils formed merely by the chance death over the ages of individual animals where they could be buried accidentally straight away. There are far more fossils in existence than could possibly form so haphazardly. In our opinion, the only historical event that both provides the necessary conditions for fossilization and explains the global extent of fossilization, is Noah's Flood as recorded in Genesis chapters 6 to 8. In that worldwide watery cataclysm, living creatures perished by their billions and were almost immediately buried by the water-borne sediments that now constitute much of the earth's crust-ideal conditions for massive and universal fossil formation. This does not mean, of course, that no fossils have ever formed since Noah's flood.

60. What is a "living fossil"?

A "living fossil" is a creature, known from fossils, that has turned up alive and well today, but which evolutionists maintain had become extinct millions of years ago. There are several examples. The most famous of all must be the coelacanth, a fish supposed to have died out at least 70 million years ago. It was hauled up off South Africa in 1938 to the astonishment of the scientific world. What is more, its fossils had been regarded as providing evidence for the way this fish was in the process of evolving into an amphibian. That knocked that theory on the head! No fossils of coelacanth have been found in any rocks less than 70 million years old, according to the evolutionists' time-scale. This is very odd if it has been swimming about for all that time. Broadening the definition somewhat, we find that many of today's plants and animals are completely unchanged since their identical ancestors were fossilized (it is assumed) millions of years ago. Sea-lilies and cockroaches, ginkgo trees and horseshoe crabs, ants and dragon-flies, shellfish and turtles, plane trees and bats, to name but a few, all survive virtually unaltered from their fossils dated at many millions of years old. The question needs to be asked, how is it that these all remained the same while evolution proceeded apace around them for countless ages? The logical inference is that those millions of years never existed and no evolution has ever taken place on our planet.

61. Couldn't life have started by a bolt of lightning striking a warm pond?

No. It would more likely electrocute it! Experiments have been set up to test this idea, such as the famous Stanley Miller¹⁰ "gas and spark" experiment in 1952. However, the results are always negative. In addition, the primeval atmosphere is a big problem. If it contained oxygen, any amino acids (the building blocks of proteins and thus of living creatures) produced by lightning would

¹⁰ Stanley Lloyd Miller (1930-2007) – American biochemist known for experiments in the origin of life. The "gas and spark" experiment, conducted with Harold C. Urey at the University of Chicago (also known as the Miller-Urey experiment), introduced an electric spark (a substitute for lightning) into a mixture of gases that reacted to form amino acids, the basic building blocks of proteins. Although secular textbooks continue to state that Miller was successful in creating amino acids necessary for life, they fail to mention that Miller actually produced a mixture of left and right-handed amino acids, which is detrimental to life.

have been immediately "oxidized" and destroyed. If it did not contain oxygen, no ozone layer would have existed to protect any organic molecules formed from lethal ultra-violet radiation from the sun. What is more, the simplest proteins require other proteins in order to form. And DNA, the genetic molecule essential to life, is needed to make proteins, and proteins are needed to make DNA. In other words, everything needs to be brought together at the same time by a Creator God. Genesis chapter one shows us just that. (Actually, the biggest unsolved mystery of evolution is how non-life became life.)

62. What is a Biblical "kind"?

A Biblical "kind" is a basic type of creature originally created by God in the beginning. All the different animals and plants in the world developed from these basic "kinds." So, for instance, all the species of dog in the world (domestic breeds, wolf, jackal, coyote, fox, dingoes, etc.) descended from the original dog "kind" created by God in Genesis chapter one (*see* verses 11-12, 21, 24-25). This is not evolution. Evolution requires that new genetic information somehow crops up in an organism enabling it to evolve into something more complex. Thus, single-celled organisms eventually made it to men! A created "kind," however, was endowed right from the beginning by the Creator with a vast pool of genetic information, enabling it to multiply into many different varieties or species. Someone has suggested that the Greek word *entelechy*, or *unfolding*, best describes this process, whereby all the genetic potential in the created "kinds" gradually emerged as they multiplied and filled the earth. Thus, change within the "kinds" is to be expected, but the change is limited to the "kind"—dogs remain dogs, they do not become cats. This scriptural truth in no way allows for the theory of amphibians evolving into reptiles and reptiles into birds, or mammals evolving into apes and apes into human beings. Other examples of Biblical "kinds" would be cattle kind, horse kind, chicken kind, rose kind, pea kind, and grass kind.

63. Isn't evolution still happening today?

It all depends what you mean by "evolution." Certainly, God's creation is complete and finished (*see* Genesis 2:1-2). And just as certainly, evolution in the commonly accepted sense never occurred—that is, simple living organisms have not developed by natural processes from non-living matter and gradually become more complex, culminating in mankind. Therefore, evolution is not happening today. However, variations within the God-created "kinds" of Genesis chapter one (e.g., dog kind, rose kind) have occurred and can still occur under the pressure of natural or artificial selection. This was always part of God's original plan. Each created "kind" has enormous genetic potential to produce related yet distinct "varieties," but always remaining the same basic type of creature, e.g., the cat kind—lion, tiger, leopard, etc (*see* Genesis 1:11, 12, 21, 24-25).

64. Do Darwin's finches prove evolution?

Before he formulated his theory of evolution, Charles Darwin had visited the Galapagos Islands off the coast of South America. His observations of finches on these islands laid the basis for much of his later theory. He noted that there were several varieties of finch. They had features that suggested that they once had common ancestors. However, other features (e.g., beak shape) suggested that they were significantly different from one another. Darwin finally concluded that these birds had originated from a common stock and had developed or "evolved" into different species under the pressure of natural selection. Thus, the theory of evolution by natural selection or "the survival of the fittest" was born. In modern times, other researchers have confirmed Darwin's findings, recording how finch populations rise and fall due to environmental factors, and even crossbreed in times of drought. Creationists do not disagree with these findings. But the point is that this is not evolution in action. This is merely normal variation within the divinely created "kinds" of Genesis chapter one. (Such "kinds" constitute the basic types of creatures that God created in the beginning to "fan out" into many different varieties or species, e.g., cat kind, rose kind, etc). In fact, it is precisely what creationists would expect to happen according to Scripture. But this in no way supports evolution from single-celled organism to amphibian, to reptile, to bird. Finches remain finches!

65. Doesn't Archaeopteryx prove that reptiles evolved into birds?

Two years after the publication of Charles Darwin's book *The Origin of Species*, the fossil remains of Archaeopteryx were discovered in Germany. Immediately it was dubbed a "missing link" because it seemed to possess reptile-like and bird-like features namely it had claws on its wings, teeth in its beak, and a bony tail (reptile-like) and fully formed feathers (bird-like). It really did seem to be a transitional creature between reptiles and birds, thus confirming Darwin's theory of evolution. It has been in the evolution textbooks ever since, perhaps the prime candidate for a missing link to date. However, the truth is rather different. The modern-day ostrich and juvenile hoatzin (a South American bird) both have claws on their wings. In addition, the hoatzin possesses the same unusual bones as Archaeopteryx. We possess fossils of true birds that have teeth, whereas it is known that some types of dinosaur (which are reptiles) did not have teeth. The feathers of Archaeopteryx are obviously identical to those of modern birds and were designed for flight. Today even leading evolutionists admit that "Old Archy" may not be the famed missing link after all.

66. Surely, the evolution of the horse has been documented beyond all reasonable doubt?

Going by the number of textbooks featuring the supposed evolution of the horse, you would think so. But oddly enough, the experts cannot agree on horse ancestry and have to admit that the fossils just do not tell the story of horse evolution. A typical chart of the evolution of the horse places the original ancestor, Eohippus or Hyracotherium, at 50 million years ago. It had four toes on each foot. A sequence is then constructed apparently demonstrating the progressive loss of toes until we reach the modern horse,

Equus, with only one toe plus hoof. It all looks very persuasive until we realize that nowhere does this theoretical succession actually occur in one location in the rocks. These fossils have been collected from many different parts of the world and put in order according to the assumed evolutionary development. Then this is used as evidence for evolution! In addition, Eohippus is very probably related to the modern hyrax and not to the horse at all. At a stroke, this knocks out the foundation of the series. The fossils do not progress smoothly—the number of ribs and lumbar vertebrae in successive fossils vary up and down in an unpredictable manner. What is more, in places the sequence in the actual rocks is in the "wrong order," Eohippus occurring in so-called recent strata. To top it all off, presumed "ancestor" and "descendant" have been found in the same rocks proving that they lived together! Overall, those textbook charts bear no relation to the truth.

67. Doesn't the case of the peppered moth demonstrate evolution in action?

The case of the peppered moth (*Biston betularia*) is found in most school evolution textbooks. It is generally regarded as an irrefutable example of evolution in action. The truth is entirely different, however. To put it as simply as possible, this moth has always existed in two forms, one light and the other darker. It is maintained that the level of pollution in Britain following the Industrial Revolution has had a direct effect on the relative abundance of the light and dark forms of the moth. The lighter form, so the theory goes, originally thrived in the mid-19th century in areas like Manchester before the days of pollution because its light color enabled it to be camouflaged against lichen which grew on tree bark. After the soot darkened the trees and killed the lichen, however, the dark forms were at an advantage and correspondingly increased in number at the expense of the light and dark moths of the same species, and at the end of the day we still have exactly the same moths, even if their relative abundance to one another has altered. No evolution has in fact occurred. (It has since emerged that the original research was somewhat "doctored"!)

68. Don't vestigial organs in human beings prove that we have evolved from animals that once had a use for such organs?

"Vestigial organs" is the term used by evolutionists for apparently redundant or unused parts of the anatomy, e.g., the appendix. Evolution has moved on, they say, leaving these useless parts far behind. Once upon a time, there was a great long list of these "out-evolved" organs, some 180 of them. As medical science has advanced, however, this list has been reduced to vanishing point, and it is now a brave person who will still say anything is vestigial. Candidates for vestigial status have included the appendix (now known to be important in the immune system's production of antibodies); the coccyx (once regarded as a vestigial tail-bone from our supposed ape ancestry, but in reality necessary for anchorage of muscles involved in reproduction, childbirth and bladder control); the pituitary gland (our "master" gland); the thyroid gland; and the thymus gland (vital for our immune system in early life). As we learn more, we discover just how important, indeed *essential*, so-called vestigial organs are. Actually, if evolution were true there would be what are sometimes called "nascent organs," i.e., organs in the process of evolution, but not yet fully developed and working. Needless to say, such organs are totally absent.

69. What is embryonic recapitulation?

This rather daunting mouthful also goes under the even more tongue-twisting phrase of "ontogeny recapitulates phylogeny." This theory maintains that the human embryo goes through a fish stage, with gill slits, and a monkey stage, with a tail. In other words, our supposed evolutionary past is replayed in the developing embryo. At one time, this theory was trumpeted as incontrovertible proof of evolution. Charles Darwin firmly believed it, as did the 19th century scientist and admirer of Darwin, Ernst Haeckel.¹¹ He produced a set of drawings "proving" that in their early stages of development the embryos of animals were almost identical. This seemed to establish that they all had a common origin. However, Haeckel's drawings were a total fraud: he had "cooked" them to produce the features the theory demanded. His scientific peers brought him to book and forced him to admit his fraud. In reality, the human embryo never possesses gill slits—this feature is creases in the neck area that later become the ear and jaw areas. No tailbone exists either; instead, this feature is the coccyx, a bone at the base of the spine essential to the anchorage of several muscles. To their credit, prominent evolutionists long ago denounced embryonic recapitulation as harmful to true science. Yet reference books and textbooks used in schools persist in presenting this discredited notion as sound evidence for evolution, even reproducing Haeckel's fraudulent drawings as fact. All this, of course, wrongly indoctrinates people with non-existent evidence for an unscientific and untrue theory.

70. How does Mendel's theory of inheritance challenge evolution?

Gregor Mendel¹² was a 19th century monk and scientist who lived in Austria. He did pioneering work in the study of inheritance. He used pea plants to discover that a relationship existed between the characteristics of parents and those of offspring. This directly challenged Darwin's then new theory of evolution. Mendel proved that no characteristic could be inherited that did not already exist in the genes of the parents. At a stroke, this removed the proposed mechanism that was supposed to cause evolution. If all offspring resulted from random mixing of pre-existent genetic features in the parents, how could entirely new features arise to generate evolutionary change? Very conveniently, Mendel's published results were "overlooked" for years by the evolutionary

¹¹ Ernst Heinrich Philipp August Haeckel (1834-1919) – German zoologist.

¹² Gregor (Johann) Mendel (1822-1884) – Austrian botanist, teacher, and monk.

establishment. Only when evolutionists started to claim that chance genetic mutations were the cause of evolutionary development (which, of course, they are not) was it safe to "rediscover" these once awkward results. Ironically, today his work is always presented as supporting evolution.

71. Doesn't genetic research confirm evolution?

No. Genetic similarities between creatures are evidence that God used a basic "blueprint," not that they evolved from one another. The genetic information is stored in the DNA molecule, a fantastically complex "code." Such a code cannot arise by chance but needs an intelligent designer, just as a computer program needs a programmer. DNA has by far the highest information storage capacity known. Research has revealed, in addition, that our genes seem able to express different information when "read" differently. This is an amazing discovery! Evolution theory is a pathetically inadequate explanation for such wonderful complexity, which could never arise by chance natural processes. Evolutionists claim that DNA errors, called "mutations," are the raw material of evolution. In reality, mutations are rare and ultimately never truly beneficial because they usually result in a loss of genetic information. For evolution to be true, mutations would have to produce brand new genetic information to "code" for new structures, organs, and instincts, which they never do, as all scientific observation conclusively shows.

72. Isn't sickle cell anemia an example of a beneficial mutation?

Modern evolutionary theory relies on the chance occurrence of so-called "beneficial mutations" to produce the brand new genetic information that any organism would need to evolve. Given enough of these, the theory states, one species will eventually evolve into another. But the fact is, any kind of mutation is rare, and usually represents a loss in genetic information. This, of course, is ultimately harmful and can even be lethal. However, the condition known as sickle cell anemia is often cited as an example of a beneficial mutation. Here the red blood cells have been genetically mutated, being sickle shaped instead of disc shaped. In those regions with a high incidence of malaria, such deformed cells are less susceptible to the disease. This is not because the mutant cell is better, but because the life span of these less efficient blood cells is shorter than the incubation period of the malaria. Thus, the mutant gene tends to build up in a human population. Yet this apparent "advantage" is more than offset by the overall effect of sickle cell anemia. Sufferers who inherit the mutant gene from both parents usually die prematurely due to the poor oxygen absorption by these misshapen and malfunctioning cells. So the malarial resistance is merely the accidental side effect of an often-fatal condition.

73. Are you saying that Darwin was wrong?

Although friends of Charles Darwin were keen to promote his new theory, a careful reading of his The Origin of Species (published in 1859) will reveal a number of doubts regarding the essential weaknesses of his ideas. "Missing links" were a problem. Darwin wrote, "Why do we not find innumerable transitional forms embedded in countless numbers in the crust of the earth? Geology assuredly does not reveal any such finely graduated chain; and this, perhaps, is the most serious objection which can be urged against my theory." Millions of fossil finds later, those missing links are still missing! Darwin also stated something that is just as valid today as when he wrote it, "...when we descend to details, we cannot prove that even one species has changed." The amazing complexity of some organs also baffled Darwin. He described the human eye as "...a beautiful crystalline lens formed in the embryo by an accumulation of epidermis cells, lying in a sack-like fold of the skin," and then in an incredible understatement admitted simply that to explain this from an evolutionary point of view was a "difficulty." Darwin's research into the distribution of different kinds of finches on the Galapagos Islands is still hailed by many as proving evolution in action. But all he really demonstrated was the original capacity for variation in each type or "kind" that God had programmed, so to speak, through their DNA codes. Different varieties of finches prospered under different conditions, but they all descended from the original pair or population of created finches. His observations were thorough; his explanation was wrong. Darwin, like all other evolutionists before or since, could not explain how evolution occurred. He did suggest selection of the "fittest" individuals as a mechanism, but he could not explain how any species could gain genetic information and so develop into something new. Darwin's theory, even in its sophisticated modern form, is now under widespread scientific attack, even by some evolutionists themselves, although this re-ceives little publicity. For example, the evolutionist Soren Lovtrup¹³ has bluntly stated, "I believe that one day the Darwinian myth will be ranked the greatest deceit in the history of science." So we are saying that Darwin was wrong, terribly wrong. We are also saying that all forms of evolution theory are terribly wrong. Much of science took a disastrously wrong turning after 1859 from which it has still to recover. Evolution theory has totally distorted our worldview.

74. If you are a Christian anyway, does it matter whether you believe in evolution or creation?

It most certainly does! Evolution is a theory that requires death, suffering, and waste on a vast scale over immense stretches of time, fuelled by genetic mistakes and dependent on mere chance. Could the perfect God of love depicted in the Bible ever use such a haphazard, imperfect and cruel process? The Biblical account of creation, on the other hand, is in total conformity with the good and loving character of God as revealed in Scripture and in the person of our Lord Jesus Christ. The present disorder and suffering in the world are the result of mankind's fall into sin, not the continuing effects of evolutionary struggle (*see* Deuteronomy 32:3-4).

¹³ Soren Lovtrup – Swedish embryologist who does not believe that evolution is driven by natural selection; author of *Darwinism: The Refutation of a Myth* (1987).

75. Why bother to write this?

In the Gospel of John, John the Apostle records that he wrote his Gospel in order that "ye might believe that Jesus is the Christ, the Son of God; and that believing ye might have life through his name" (John 20:31). It is our sincere desire that in reading through this material you may not merely see that there are scientific and rational reasons for believing in creation as the Bible describes it, but that also you may realize that there is a Creator God, the Lord Jesus Christ, whom God the Father "hath appointed heir of all things, by whom also he made the worlds" (Hebrews 1:2). This Creator is also the Redeemer. He came as a man to be crucified on a cross 2,000 years ago to pay the penalty for the sins of all those who will turn to Him for salvation. He is now the resurrected and glorified Lord of Creation. The Apostle Paul appeals to us in these words, "We pray you in Christ's stead: be ye reconciled to God. For he hath made him [Jesus Christ] to be sin for us, who knew no sin; that we might be made the righteousness of God in him" (2 Corinthians 5:20-21). We urge you, whoever you are, to turn to Christ and seek His forgiveness for your own sins. For this same Christ will one day return in blazing fire on the Day of Judgment to judge the living and the dead (*see 2* Thessalonians 1:7-10).

As the Apostle Peter wrote, "Knowing this first, that there shall come in the last days scoffers, walking after their own lusts, And saying, Where is the promise of his coming? for since the fathers fell asleep, all things continue as they were from the beginning of the creation. For this they willingly are ignorant of, that by the word of God the heavens were of old, and the earth standing out of the water and in the water: Whereby the world that then was, being overflowed with water, perished: But the heavens and the earth, which are now, by the same word are kept in store, reserved unto fire against the day of judgment and perdition of ungodly men...The Lord...is longsuffering to us-ward, not willing that any should perish, but that all should come to repentance" (2 Peter 3:3-9).

BOOK LIST

Most can be obtained from the Creation Societies listed at the beginning.

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