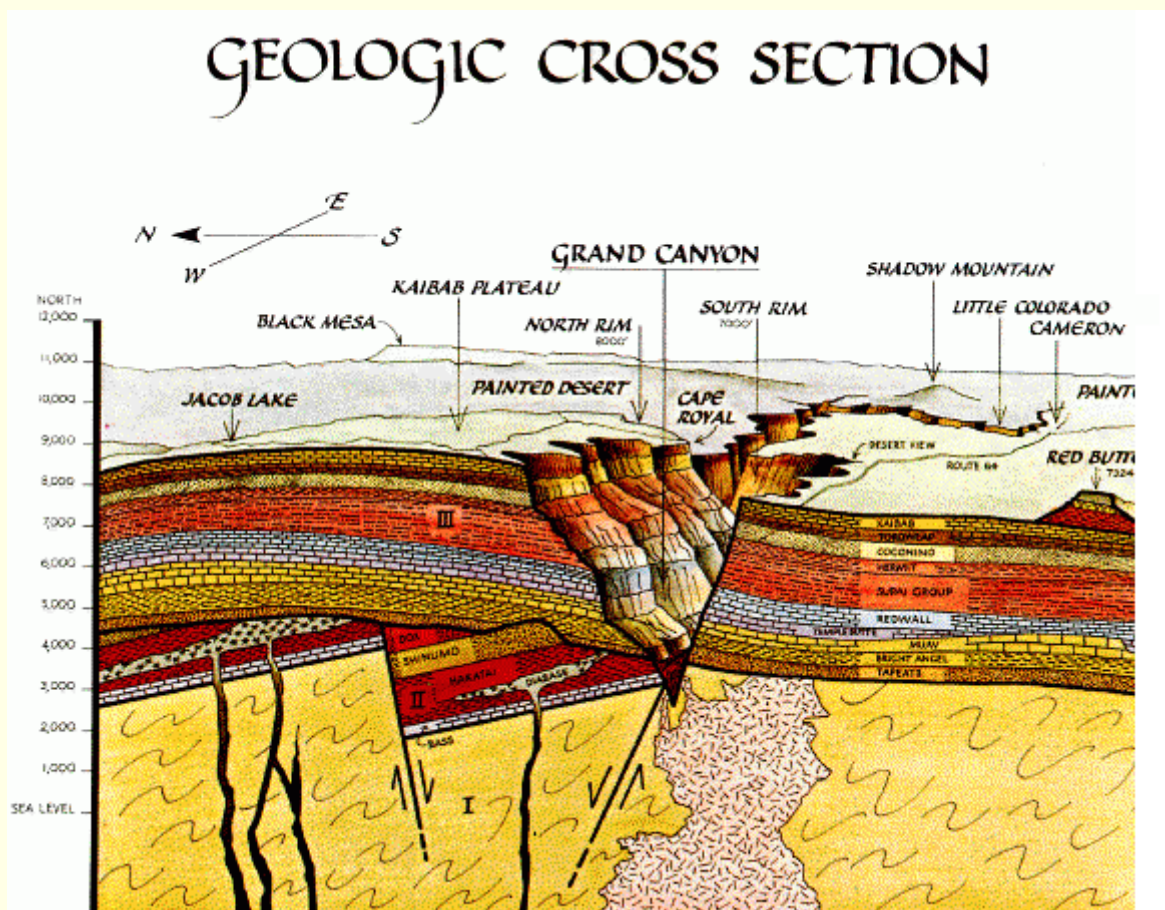


YOUNG EARTH V OLD EARTH



Roger Waite

YOUNG EARTH

V

OLD EARTH

Table of Contents

INTRODUCTION	3
Is the “Gap Theory” a Recent Viewpoint?	5
SECTION ONE: INTERNAL BIBLICAL EVIDENCE FOR THE EARTH’S AGE	8
An Original Creation or a Restoration?	10
How Does Satan’s Rebellion fit in with the Creation Account?.....	13
SECTION TWO: ASTRONOMICAL EVIDENCE	19
SECTION THREE: GEOLOGICAL EVIDENCE	25
The Fossil Record.....	35
The Great Mass Extinctions.....	40
The Pleistocene Mass Extinction – Did It Cause the Earth to Become Waste and Void?	43
Lucifer and His Fallen Angels and Life and Death in the Pre-Adamic World.....	48
Pre-Adamic Hominids	53

YOUNG EARTH v OLD EARTH

INTRODUCTION

Just how old is the earth and the universe around us? A clear answer on this question is essential if we are able to trust in God and the Bible. Why?

The genealogies of Genesis clearly place the creation of the first man, Adam, 6 000 years ago. Most professing Christians believe the earth and the universe were created out of nothing by God's power at the same time a mere 6 000 years ago?

If the Bible plainly says that the earth is only 6 000 years old and all the evidence of astronomy and geology definitively proves it is millions of years old does this not create a conflict? Does this not make it difficult for one new to the Bible to be able to trust God and the rest of the Bible if the Bible is so "wrong" about how old the earth and the universe really is?

We need to harmonise the Bible and science on this important subject. We have the interpretation of much of professing Christianity that the earth is only 6 000 years old while on the other hand we have the interpretation of science based on astronomy and geology that the earth is millions of years old?

Which one of these two interpretations of the truth is the real truth and which one is a false interpretation of the truth?

If we determine which of these is a false interpretation of the truth we should also find out why that false interpretation of the truth is mistaken. Why is something that appears to be the truth off the track and is in reality just a misunderstanding?

On the question of how old man is there is no wobble room for what the Bible's answer is on that subject. The genealogies of the line of Adam and Eve are clearly given in the book of Genesis (mostly in chapters 5 and 11) with exact ages for each of the patriarchs.

Jesus Christ quoted the Garden of Eden story in Matthew 19:4-5 when He spoke about marriage and two becoming one flesh. He acknowledged the real existence of Adam's first son, Abel, who was murdered (Matthew 23:35). Adam is included in the genealogy of Jesus Christ (Luke 3:38) and the apostle Paul spoke of Adam as a real person (1 Corinthians 15:45).

How can we believe Christ is our Saviour if He was lying about Adam and his son Abel being real people?

The detailed genealogical data in the Book of Genesis gives us no wobble room to believe that the Bible says man's age is any different to around 6 000 years.

The first thing that most young earth creationists need to keep in mind is that man's science and the Bible are actually in relatively close harmony on this point.

While the scientists say that the first man-like hominid is a million years old (and this creature is much more ape than man) they tell us that the oldest true homo sapiens is only 35 000 years old. Man's age according to evolutionary science is a MERE FRACTION of the age of the oldest fossils of living creatures. Even here the difference between the supposed age of true homo sapiens and the Bible's 6 000 years can be comfortably put down as an exaggeration caused by inexact dating methods.

Are the dating methods that tell us other fossils are millions of years old just exaggerated or completely useless beyond so many years as many young earth creationists argue?

In his classic book "Why We Believe in Creation Not Evolution" Fred Meldau tells us about what is common opinion amongst archaeologists and palaeontologists:

As we seek to consider the subject of the Age of Mankind objectively, we are struck with a fact of outstanding importance:

"(1) Man's 'written history' - when man began to write DID NOT BEGIN UNTIL ABOUT 5,000 years ago. That would be about 3,000 B.C. This remarkable fact - that 'written history' begins from 3000 to 3500 B.C. conforms closely to the Bible chronology of mankind!...

"(2) How can one explain the phenomenon of hundreds of highly developed languages, the world over, even among primitive tribes, IF language evolved slowly through the ages? The evidence is all tribes and races obtained the use of language SUDDENLY; and that fits in with the Bible record of Divine creation...

"(3) In addition to the evidence of 'writing' we have another corroborative fact: Archaeological evidence indicates that 'Food production probably began in the Near East somewhere between 6,000 and 5,000 B.C.' 'The earliest village-culture materials now known start about 5,000 B.C.' By 'food producing' economy, palaeontologists mean, 'men began producing their food, instead of simply collecting it'" (p.324).

While the scientists say that the earth is around 4 billion years old and that the oldest life on earth is 1 to 2 billion years old they tell us that man is a very recent newcomer. Just as the Bible says, mankind, according to science, has been here for only a mere fraction of that time.

This should tell us something about the age-old idea put forward by young earth creationists that God gave everything the appearance of vast age even though it is extremely young.

Despite the fact that it takes millions of years for light to travel from the stars that our modern telescopes can see young earth creationists are in almost universal agreement that the whole universe must be only 6 000 years old "because God created the sun, moon and stars on the fourth day". It should be noted when it says that "**he made** the stars also" in Genesis 1:16 that the words "he made" are in italics indicating that **they are not there in the original Hebrew**.

A question I pose to young earth creationists is can the Bible be interpreted correctly in such a way as to hold to believing in a young earth and an old universe at the same time?

Could God have created most of the universe billions of years ago and the stars God "made" on the fourth day were only just those local to our solar system?

This would certainly get around the problem that has vexed young earth creationists about how we could see stars millions of light years away if they are only 6 000 years old and there hasn't been enough time for light from them to travel to the earth.

While the vast majority of creationists believe that the earth and the universe are only 6 000 years old there are three other creationist views which are in the minority.

The first one is theistic evolution which believes in evolution as currently taught with all its flaws and that this is the process by which God has, in an uninvolved way, created life on the planet.

Sadly this is a view held by one of my favourite scholars, Immanuel Velikovsky. In his book "Earth in Upheaval", the geological companion to his controversial work, "Worlds in Collision" he gives his own "fix" to the evolution problem of the vast number of missing links between species and genera. He postulates extra cosmic radiation created by cosmic catastrophes produced the many genetic jumps between species and genera or macro-mutations. The problem with this "fix" is that the vast majority of mutations produce deformities and negative results not the positive jumps needed to make evolution work.

The second minority view is that of long-day creation. Those who hold this view say that the seven days of Genesis 1 were not literal 24-hour days but were long eons of time that parallel the geological eras.

It is true that the word "day" in the scriptures can be interpreted this way such as the Day of the Lord and the day of God's judgment as a general period of time. Even those who believe the earth was created 6 000 years ago would admit the word day in Genesis 2:4 where it says "in the day that the Lord God made the earth and the heavens" is a general period of time rather than one literal 24 hour day.

Having said that, this point of view can be easily be shown to be false just by noticing the recurring phrase "so the evening and morning were the [first or second or third] day", etc. The context clearly tells us that the word day for the seven days of Genesis 1 is to be taken literally and not symbolically as it can in other places. Another reason they are seven literal days is that seven eons called days would make a mockery of the symbolism of the sabbath where we are told God sanctified the seventh day of the week by resting from all His works (Genesis 2:3).

The last of the three minority points of view is what has been labelled by creationists who disagree with it as the "gap theory".

Those who believe in this view say that the original creation of the earth is described in Genesis 1:1 and that it was eons ago just as astronomers and geologists believe. They say that there is a massive gap of time between the first and second verse of Genesis 1.

In the second verse "the earth was (or it should be better translated "became") without form and void". The Hebrew for "without form and void" according to them is translated elsewhere as "waste and confusion" or "destruction and ruin".

Since God is not the author of confusion (1 Corinthians 14:33) something or someone else brought this destruction upon the face of the earth. Those of this view say that this destruction and ruin was caused by Satan and his demons during his great rebellion against God. They say that Satan is already a fallen angel when God restores the earth and creates Adam and Eve and places them in the Garden of Eden 6 000 years ago.

Is the "Gap Theory" a Recent Viewpoint?

Those who disagree with the "gap theory" claim that it is only a recent theory that is merely a reaction to the scientists' claims that the earth is very old. They say it is merely a recent compromise that is not supported by the Bible.

The truth of the matter on this point is that the “gap theory” has been around for a very long time and that it long pre-dates the modern challenges of science and geology.

Before moving on to the three major sections of this paper I'd like to give a few quotes that attest to the fact that this point of view has been around for a very long time. The following quotes are from chapter 1 of Arthur Custance's work “Without Form and Void” (<http://www.creationdays.dk/withoutformandvoid/Articles.php>). He writes:

D. F. Payne of the University of Sheffield, England, in a paper published recently by Tyndale Press entitled, *Genesis One Reconsidered*, makes this brief aside at the appropriate place: "The 'gap' theory itself, as a matter of exegesis, **antedated** (my emphasis) the scientific challenge, but the latter gave it an new impetus"...


According to the Revised Edition of Chambers's Encyclopedia published in 1860, under the heading "Genesis" the view which was then being popularized by Buckland and others to the effect that an interval of unknown duration was to be interposed between Gen. 1.1 and 1.2 was already to be found in the Midrash.

In his great work, *The Legends of the Jews*, Louis Ginsberg has put into continuous narrative a precis of their legends, as far as possible in the original phrases and terms. In Volume 1 which covers the period from the Creation to Jacob, he has this excerpt on Genesis 1:

"Nor is this world inhabited by man the first of things earthly created by God. He made several other worlds before ours, but He destroyed them all, because He was pleased with none until He created ours"...

Furthermore, in the Massoretic Text in which the Jewish scholars tried to incorporate enough 'indicators' to guide the reader as to correct punctuation there is one small mark which is technically known as *Rebhia*, which is classified as a "disjunctive aceent" intended to notify the reader that he should pause before proceeding to the next verse. In short, this mark indicates a "break" in the text. **Such a mark appears at the end of Genesis 1.1. This mark has been noted by several scholars including Luther. It is one indication among others, that the initial waw (ו) which introduces verse 2 should be rendered "but" rather than "and" a dis-junctive rather than a conjunctive.**

Akiba ben Joseph was an influential Jewish rabbi who was president of the School Bene Barek near Safa. He laid the basis for the Mishna. When Barcochebas rebelled against the Romans, Akiba joined him and was captured. He was executed in 135 A. D. The ancient work known as *The Book of Light*, or *Sefer Hazzohar*, sometimes simply *Zohar*, was traditionally ascribed to one of Akiba's disciples, a certain Simeon ben Jochai. In this work, which thus represents an opinion held towards the end of the first century and the early part of the second, there is a comment on Gen. 2.4-6 which, though difficult to follow, reads thus:

"These are the generations (ie., this is the history of....of heaven and earth....Now wherever there is written the word "these"  the previous words are put aside. And these are the generations of the destruction which is signified in verse 2 of chapter 1. The earth was Tohu and Bohu. These indeed are the worlds of which it is said that the blessed God created them *and destroyed them*, and, *on that account*, the earth was desolate and empty"...

Origen, for example, who lived from 186 to about 254 A. D. and to whom the original languages of the Bible were very familiar, has this to say in his great work, *De Principiis*, at Gen. 1.1:

"It is certain that the present firmament is not spoken of in this verse, nor the present dry land, but rather that heaven and earth from which this present heaven and earth that we now see afterwards borrowed their names"...

Hugo St. Victor (1097 - 1141) was a Flemish scholar and a member of the Augustinian Monastery of St. Victor and later Prior of the monastery in Paris. He wrote:

"Perhaps enough has already been debated about these matters thus far, if we add only this, 'how long did the world remain in this disorder before the regular re-ordering (dispositio) of it was taken in hand? For the fact that the first substance of all things arose at the very beginning of time - or rather, with time itself - is settled by the statement that, 'In the beginning God created the heavens and the earth'. But how long it continued in this state of confusion, Scripture does not clearly show".

Two centuries later, Thomas Aquinas (1226 - 1274) reiterated this view when he wrote: "but it seems better to maintain (the view) that the creation was prior to any of the days (literally, before any day). "

St. Thomas evidently considered that the first day was not to be equated with the time of creation itself. This first day came later: he does not suggest how much later...

Dr. Thomas Chalmers of the Scottish Church engaged in lecturing at St. Andrews, a man keenly interested in the developing sciences of his day, particularly in connection with various earths of importance to the chemist. In 1804 he wrote:

"There is a prejudice against the speculations of the geologist, which I am anxious to remove. **It has been alleged that geology, by referring the origin of the globe to a higher antiquity than is assigned to it by the writings of Moses, undermines our faith in the inspiration of the Bible, and in all the animating prospects of the immortality which it unfolds. THIS IS A FALSE ALARM. The writings of Moses do not fix the antiquity of the globe"**...

In 1853 Professor J. H. Kurtz of the University of Dorpat wrote that:

".... between the first and second, and between the second and third verses of the biblical history of creation revelation leaves two great white pages on which human science may write what it will in order to fill up the blanks of natural history which revelation omitted to supply itself as not being its office"...

In his *History of the old Covenant*, published in 1859...he presents the view that "the state of the earth described in verse 2 was connected with the fall of the angels who kept not their first estate (Jude 6)". He continues:

"This view is very old, though not exactly known to the Fathers, who generally asserted that mankind were created to fill the gap left by the fall of the angels. Many of them thought that the race was to increase until the number of the redeemed should equal the number of the fallen angels."

As to his view of the events of the first creation, he wrote:

"The organisms of the primeval world are not the animals and plants of the Mosaic economy, neither are they those of historical times: while those of the biblical narrative are those which natural history at present makes us acquainted with. Thus the supposed contradiction is removed.

"The types buried in the rocks.... were not created for *man* and have not been his contemporaries on earth. *Long before* he appeared they had become extinct or were shut up in their rocky graves.... Beyond doubt, the *fossils of the rocks cannot represent those organisms whose creation the Bible relates*"(emphasis his).

This rest of this paper will cover three major areas. In the first section we will look at the internal evidence of the Bible in the languages it was written in to determine what the Bible really says about whether the earth is young or old.

In the second section we will look at the astronomical evidence for the age of the earth and the universe and in the third section we will look at the geological evidence of the age of the earth.

SECTION ONE: INTERNAL BIBLICAL EVIDENCE FOR THE EARTH'S AGE

The case for a 6 000 year old earth and universe is essentially built upon two verses. Creationists who believe in this view essentially use only two biblical passages to support their point of view and both these verses revolve around the interpretation of one word usually translated as made.

The main two verses young earth creationists use to support their case are Genesis 1:16 and Exodus 20:11. These two verses have a common word which we will examine carefully in determining if the earth is very young or old. Let's look at the first of these two passages:

Genesis 1:16-19 – “God **made** two great lights: the greater light to rule the day, and the lesser light to rule the night. *He made* the stars also. God set them in the firmament of the heavens to give light on the earth, and to rule over the day and over the night, and to divide the light from the darkness. And God saw that *it was* good. So the evening and the morning were the fourth day.”

The simplest way of interpreting these verses taking them at face value is that the original creation of the sun and moon, earth and heavens took place within that same week 6 000 years ago.

There is a problem with believing the sun was originally created on the fourth day, though, and that is how do you account for the fact that there was evening and morning on the first, second and third days?

The young earth creationists do have an answer for this problem. The answer is a little bit awkward but it is still a plausible and acceptable one.

The KJV Commentary offers the following possible answer to the dilemma:

“This light is not the sun, which was created on the fourth day according to verse 16, it must have been some fixed light source outside the earth [The one referred to by God's words “Let there be light.”] In reference to that light, the rotating earth passed through a day-night cycle.”

Let's now look at the second “proof text” of the young earth point of view:

Exodus 20:11 – “For *in* six days the LORD **made** the heavens and the earth, the sea, and all that *is* in them, and rested the seventh day. Therefore the LORD blessed the Sabbath day and hallowed it.”

Again we run across this same word “made” translated from the same Hebrew word “asah” so it is vital that we understand the meaning of this word in these verses if we are to properly understand these verses.

Those who support the so-called “gap theory” contend that the sun had long been originally created when we get to the creation week in Genesis 1 and that the Hebrew word “asah” translated “made” is to be understood differently to the original creation signified by the Hebrew word “bara” translated “created” in Genesis 1:1 where we read “In the beginning God created the heavens and the earth”.

The real crux of this argument is whether the Hebrew word translated “made” used in both of these young earth “proof texts” is to be understood as the original creation or not.

The following is how those of the “gap theory” viewpoint explain this passage. This is from the WCG booklet “In the Beginning – Answers to Questions from Genesis”:

QUESTION: Could you explain how there could be light on the first day of creation when the sun, moon, and stars were not created until the fourth day?

ANSWER: As explained in the last few answers, great destruction had occurred to the earth, as pictured in Genesis 1:2. When God looked at the chaotic state before Him, He saw an atmosphere filled with thick clouds. If there had been a human being on the earth's surface, he would have seen nothing because no light penetrated the saturated atmosphere.

God's first act in recreating the earth's surface, was to thin the clouds enough to let light from the sun filter to earth. Then, on the fourth day of creation, God cleared the clouds away so that the sun, moon and stars could be clearly viewed. Verse 16 tells us that God "made" the sun and moon.

The Hebrew word for "made" is *asah*. It could be translated as "made," "had made," or "will have made." Any of these renderings could be correct. But the exact one would have to be determined from the context.

By looking at the context, it is evident that God already "had made" the sun, moon and stars long before and set them in the sky.

Note what one well-known Old Testament introduction says on the subject: "In explaining this phenomenon it must first be noted that the standpoint of the first chapter of Genesis is an ideal geocentric one, as though the writer were actually upon the earth at that time and in a position to record the developing phases of created life as he experienced them. From such a standpoint the heavenly bodies would only become visible when the dense cloud-covering of the earth had dispersed to a large extent" (R. K. Harrison, Introduction to the Old Testament, p. 554).

Therefore, the sun, moon and stars were created long before the fourth day of creation. They were made visible again on the fourth day of the week of recreation of the earth's surface.

Translating “asah” in this verse to read “God had made [past tense] two great lights” is a plausible way to interpret this, though slightly awkward. That being said, it is no less awkward than the young earth interpretation of how there was evening and morning on the first day without the sun.

While “made” is one of the many possible words Strong's Concordance tells us it is translated into, it doesn't give “create” as one of the many it can be translated into in its list. Some other

synonyms that it can be translated into according to Strong's include "bring forth", "fashion", "furnish" and "prepare".

If I say that I have "made my bed" does it mean that I have built it from scratch? We can "fashion" or "prepare" our house for a guest arriving but that does not mean we have just created or built it from scratch. Our English word "made" doesn't always mean create just as "asah" doesn't always mean create from scratch either.

The New King James translates the Hebrew "shameh" into the plural "heavens" while the King James Version translates it into the singular "heaven". According to Strong's the primary meaning of the Hebrew word "shameh" is sky though it can also mean outer space beyond the earth's atmosphere.

It is well known that the Bible refers to three different heavens – the atmosphere where the birds fly, outer space where the stars and planets are and the place where God the Father resides called the "third heaven" by Paul in 2 Corinthians 12:2.

If we paraphrase Exodus 20:11 with what we have learned about the Hebrew words it can just as easily be translated the following way which is perfectly compatible with the "gap theory":

"For in six days the LORD prepared (or fashioned) the sky and the earth, the sea and all things in it."

BOTH the old earth and young earth points of view have an equally strong case if we just look at these two passages ALONE.

My contention in this section of the paper is that both sides have an equally strong case based on these two passages alone and that we need look at the rest of the internal evidence of the Bible to "break the deadlock" and understand which of the two points of view God intended when He constructed the Genesis account.

An Original Creation or a Restoration

So, are the seven days of creation that occurred 6 000 years ago the original creation of the earth and the heavens or a restoration?

Before we look further into the Genesis account I'd like to go to a verse in the New Testament that will shed some light on our question. It is Hebrews 11:3 which reads:

"By faith we understand that the worlds were **framed** by the word of God".

The word translated here as "framed" is an interesting one. It is the Greek word "katartidzo". Let's look at two other places where it is used in the New Testament. In Galatians 6:1 we read:

"Brethren, if a man is overtaken in any trespass, you who *are* spiritual **restore** [Greek: katartidzo] at such a one in a spirit of gentleness, considering yourself lest you also be tempted."

The Greek “katartidzo” here is translated as “restore”. Another place where it is used is Matthew 4:21 where we read:

“Going on from there, He saw two other brothers, James *the son* of Zebedee, and John his brother, in the boat with Zebedee their father, **mending** [Greek: katartidzo] their nets.”

The Greek word here is translated as mending in this verse. Now if we paraphrase Hebrews 11:3 with these other possible translations it would read as follows:

“By faith we understand that the worlds were **restored / mended** by the word of God”.

Along similar lines to Hebrews 11:3 we read the following in Psalm 104:30:

“You send forth Your Spirit, they are created; and You **renew** the face of the earth.”

The Hebrew word used for “renew” is “chadash” which means “rebuild, renew, repair” according to Strong’s Concordance.

Now let’s go back to Genesis. Arthur Custance in his book “Without Form and Void” has this to say about what occurs in the Massoretic text of the Hebrew scriptures:

In the Massoretic Text in which the Jewish scholars tried to incorporate enough 'indicators' to guide the reader as to correct punctuation there is one small mark which is technically known as *Rebhia*, which is classified as a "disjunctive accent" intended to notify the reader that he should pause before proceeding to the next verse. In short, this mark indicates a "break" in the text.

Such a mark appears at the end of Genesis 1.1. This mark has been noted by several scholars including Luther. It is one indication among others, that the initial waw (ו) which introduces verse 2 should be rendered "BUT" rather than "and", a dis-junctive rather than a con-junctive.

According to Custance verse two should read “But the earth was [or became] without form and void”. If “but” is the way it should begin then clearly something happened in opposition to God’s original design in verse one.

The next controversy surrounding the proper translation of verse two is whether the word “was” should be translated as “was” or “became”. If it should read “the earth was without form and void” neither case for a young earth or old earth is affected.

If, however, it should be translated “the earth became without form and void” this greatly hurts the case for a young earth. In the WCG booklet “In the Beginning – Answers to Questions from Genesis” we read the following:

An added point of evidence is verse 2 of Genesis 1. Here the English word translated “was” is from the Hebrew word *hayah*. This word is translated “became” in Genesis 2:7 [and man **became** a living soul] , 9:15 [the waters shall never **become** a flood to destroy all flesh] and 19:26 [she **became** a pillar of salt].

In the first three chapters of the Bible, and many other places where you find the Hebrew word *hayah*, it denotes a condition that was different from a former condition. In other words, the earth "became" chaotic.

This same word "*hayah*" is also used in God's famous reply to Moses as to what His name is when He said "I AM [Heb: *hayah*] that I AM [Heb: *hayah*]".

The third point those of the "gap theory" point of view point out regarding the proper translation of verse two is the way that the Hebrew words "*tohu*" and "*bohu*" should be translated.

In the KJV and NKJV they are translated as "without form and void". How should the words "*tohu*" and "*bohu*" be translated? Strong's Concordance gives the following definitions:

8414 *tohuw*, *to'-hoo*; from an unused root mean. **to lie waste; a desolation** (of surface), i.e. *desert*; fig. a *worthless* thing; adv. in *vain*:— **confusion**, empty place, **without form**, nothing, (thing of) nought, vain, vanity, waste, wilderness.

922 *bohuw*, *bo'-hoo*; from an unused root (mean. **to be empty**); a *vacuity*, i.e. (superficially) an undistinguishable **ruin**:— emptiness, void.

Based on those definitions it could be translated as "waste and empty", "laid waste and in ruin", "in confusion and empty" or "desolate and empty".

The WCG booklet "In the Beginning – Answers to Questions from Genesis" makes these comments about "*tohu*" and "*bohu*":

The Hebrew words for "without form and void" (Genesis 1:2) are *tohu* and *bohu*. Translated into English they mean chaotic, in confusion, waste, empty. Why would God create the earth in disorder and then have to straighten it out? That wouldn't make sense! The Hebrew word for "created" used in Genesis 1:1 implies that the creation was a perfected work. It implies order and system, not chaos or confusion!

In 1 Corinthians 14:33 we read that "God is not the author of confusion." God is the author of peace. He is the author of law and order. God told Job that the angels shouted for joy when the earth was created (Job 38:7). This is further indication that when God created the earth, He created it useful and beautiful. Conclusive proof is found in Isaiah 45:18. Notice: "For thus saith the Eternal that created the heavens; God himself that formed the earth and made it; he hath established it, he created it not in vain..."

"In vain" is an inappropriate translation. The original Hebrew word is *tohu*. This is the same identical Hebrew word used in Genesis 1:2 meaning "confusion" or "emptiness" or "waste" - a result of disorder, a result of violation of law. Thus, this verse is a plain statement that when God created the earth it was not *tohu* - in a state of confusion and disorder. It became that way long before the seven day "creation week," which actually begins in verse 3.

One other passage in the Genesis account is used to add support for the case for the "gap theory" and that is Genesis 2:4-5 where we read:

"These *are* the **generations** [plural] of the heavens and of the earth when they were created, in the day that the LORD God made the earth and the heavens, and every plant of the field before it was in the earth, and every herb of the field before it grew: for the LORD God had not caused it to rain upon the earth, and *there was* not a man to till the ground."

The use of the plural "generations" indicates, in the opinion of Simeon ben Jochai in the ancient work known as "The Book of Light", that there have been multiple ages in which life has been created and destroyed on earth.

According to scholars Genesis 2:4 begins another version of the creation story just as we have four gospels which tell the story of Christ from different angles. It is believed that the written history of Genesis was handed down the generations of the patriarchs as a series of tablets which kept the records that Moses combined into the book of Genesis.

The first of the two Creation accounts ends with Genesis 2:3 after the sabbath is created and this would have been the right place to put a chapter break before it moves on to the alternate account which focuses more on the story of Adam. There are key words that indicate where each of the series of tablet accounts begin. The places in Genesis where we see these breaks beginning new accounts include:

Genesis 1:1 – "In the beginning God created the heavens and the earth..." (Written by God Himself?)

Genesis 2:4 – "These are the generations of the heavens and the earth..." (Written by Adam?)

Genesis 5:1 – "This is the book of the genealogy of Adam..." (Written by Noah?)

Genesis 6:9 – "This is the book of the genealogy of Noah..."

Genesis 10:1 – "Now this is the genealogy of the sons of Noah..."

Genesis 11:10 – "The is the genealogy of Shem..."

Genesis 11:27 – "This is the genealogy of Terah..."

Genesis 25:12 – "Now these are the generations of Ishmael..."

Genesis 36:1 – "Now these are the generations of Esau, who is Edom..."

Genesis 37:2 – "These are the generations of Jacob..."

How Does Satan's Rebellion fit in with the Creation Account?

What is quite obvious from the Genesis account is that the rebellion of Satan must have occurred before he tempted Eve 6 000 years ago. Satan is already an evil being when he comes to tempt Adam and Eve.

If the earth is young (6 000 years old) then the rebellion of Satan **MUST** have occurred before the temptation of Eve and likely before Creation Week.

John 8:44 says "He (Satan the Devil) was a murderer from the beginning". This beginning appears to be no later than Creation week. Genesis 1:31 says that God pronounced everything very good after His week of creation so the rebellion appears to have **NOT** occurred **DURING** Creation week either.

Do we have any indications in the Bible where Satan was when he rebelled? For the young earth view to be true then it has to be somewhere other than the earth since the earth wasn't created at the time of his rebellion.

If the Bible shows that Satan was on the earth at the time that he rebelled against God then the earth had to be in existence **BEFORE** the creation or re-creation week of 6 000 years ago.

We've all heard of the Devil but where did he come from? Did God create him and, if so, was he evil when God created him? In Ezekiel 28:12-15 we read:

"Son of man, take up a lamentation for the king of Tyre, and say to him, 'Thus says the Lord God: 'You *were* the seal of perfection, full of wisdom and perfect in beauty. You were in Eden, the garden of God; every precious stone *was* your covering: the sardius, topaz, and diamond, beryl, onyx, and jasper, sapphire, turquoise, and emerald with gold. The workmanship of your timbrels and pipes was prepared for you on the day you were created. You *were* the anointed cherub who covers; I established you; You were on the holy mountain of God; You walked back and forth in the midst of fiery stones. You *were* perfect in your ways from the day you were created, till iniquity was found in you.'"

This anointed cherub was created by God perfect, full of wisdom and having great beauty. This obviously is not referring to any human being. He was a covering cherub based at the throne of God in heaven. Later he walked in the garden of God in Eden. Obviously this anointed cherub is one and the same as Satan the Devil since he was in the Garden of Eden. The question we're asking here is was he still based in heaven when he sinned or on the earth?

He was perfect in all his ways until iniquity or sin was found in him. God created this anointed cherub perfect and he was until he chose to disobey God and sin since God gives all free moral agency. He doesn't force us to obey Him. He wants individuals who will freely choose to obey Him not who are forced by God's programming to only follow Him.

A parallel account to this rebellion of Satan is found in Isaiah 14. Verses 12 to 14 are almost universally agreed to be referring to Satan. There are some, though, who disagree with this identification because it goes on to say after it in verses 15 and 16:

"Yet you shall be brought down to Sheol, to the lowest depths of the Pit. Those who see you will gaze at you, *and* consider you, *saying*: 'Is this the **man** who made the earth tremble, who shook kingdoms'"

The use of the word "man" here is used to say that verses 12 to 14 refer to the King of Babylon who the whole proverb is ascribed to (verse 4).

There are three possibilities for who the first half of this chapter is referring to. It could solely refer to the human king of Babylon, it could refer solely to Satan who is the spirit king influencing the king to do what he does or it could be a mix of the two as per the pattern of Ezekiel 28. Ezekiel 28 starts with a proverb against the Prince of Tyre (a human leader) and then starts a new proverb against the King of Tyre (the spirit power behind this kingdom).

There is no such division between a proverb against the prince and then against the king in Isaiah 14, just one proverb against the King of Babylon. However, the internal evidence of verses 12 to 14 strongly indicate that, at least those verses refer to Satan and we will look at that in just a moment.

For now, how do we explain the use of the word "man" in verse 16 if it refers to Satan? There are several places where angels are described as men in the scriptures. The angels who took a hold of Lot's family were described as men (Genesis 19:12) as were those who appeared after Jesus ascended to heaven (Acts 1:10). Gabriel is described as a man in Daniel 9:21 as is the angel Ezekiel sees in Ezekiel 40:3. They were described as men in that, at that moment of time, they appeared to look like men, not that they were human beings.

Having explained that, let's read what Isaiah writes in Isaiah 14:12-14:

"How you are fallen from heaven, O Lucifer, son of the morning! *How* you are cut down to the ground, You who weakened the nations! For you have said in your heart: 'I will ascend into heaven, I will exalt my throne above the stars of God; I will also sit on the mount of the congregation on the farthest sides of the north; I will ascend above the heights of the clouds, I will be like the Most High'".

The first point to notice is it says "How you are fallen from heaven". Since no man has ascended to heaven (John 3:13) this strongly indicates we are not dealing with the human king of Babylon. In Luke 10:18 Jesus said: "I saw Satan fall like lightning from heaven." Jesus' statement here gives further support to the view we are dealing with Satan here in Isaiah 14.

Secondly, he is described as Lucifer, son of the morning? How could this be a reference to the human king of Babylon? Lucifer is a Latin word which has become the English translation. The original Hebrew word is "Heylel". It means "Day Star". Stars are a symbol for angels (Revelation 1:20).

He was very intelligent and powerful and this power and intelligence went to his head. He became full of pride and vanity. He thought he could run the universe better than God and tried to take over God's throne and rule the universe. His rebellion failed and he was cast back down to earth with a third of the angels who rebelled with him (Revelation 12:3-4). The angels on earth he was over in authority became known as the fallen angels or demons (Matthew 9:32-33). Lucifer became Satan the Devil, the great adversary of God and inspiration for Darth Vader, only a whole lot nastier.

So where was he based when he rebelled against God?

Notice that he said "I will exalt my throne". God had given him a throne and authority and where did God give him that authority?

Notice that he also said "I will ascend ABOVE THE CLOUDS". So logically we can deduce from that he was below the clouds if he wanted to ascend above the clouds to dethrone God.

Clouds are only found on physical planets such as the earth. It certainly appears as if God had transferred him from heaven and given him a throne or rulership on this earth.

If he was on earth when he rebelled against God then this seriously shakes the case for the earth only being in existence for 6 000 years.

It makes little sense he was given this throne at the time of Creation week since the same dominion over earth was given to Adam (Genesis 1:26). Not only that, Adam and Eve's Creator, was on earth mentoring them prior to their sin in the Garden so what would be the point of giving Satan a throne here on earth after the start of Creation week?

There is virtually no time in the young earth viewpoint for Satan to manipulate and turn a whole third of the angels against God and rebel with him. It has to be remembered that angels have far greater minds and intelligence than humans.

It also has to be remembered that since there is over 100 million good angels (Revelation 5:11) Satan swayed not just a couple hundred angels but OVER 50 MILLION angels to join him in his rebellion. This would have taken a great deal of time to do.

It is more logical to believe that God gave him his throne and authority on earth in the time before Creation Week and that it was Satan's rebellion and destruction that caused the earth to become "without form (or waste) and void".

An earth age of undefined length prior to the "re-creation week" would also reconcile with the laws of physics that tell us we shouldn't even be seeing the light of galaxies millions of light years away if the earth and universe was only 6000 years old.

Satan tried to unseat God "on the mount of the congregation on the **farthest sides of the north**".

As an aside, this location of God's throne is echoed in many pagan religions which have borrowed this concept. Pagan gods such as Ra, Shamash, Kronos and Saturn were also said to dwell there (The Tree at the Navel of the Earth, E.A.S. Butterworth & Paradise Found, William F. Warren).

This is also why Santa supposedly comes from the North Pole as many Christmas customs originate from the Roman festival, Saturnalia.

The responsibilities that Lucifer and the angels under him may have had over the pre-Adamic world would have been for the purpose of helping them develop God's character within them and test them to see whether they would follow God's way or not.

The WCG booklet "In the Beginning – Answers to Questions from Genesis" describes what may have happened this way:

Even as man thinks, and designs and plans before making - so did God conceive the plan and design to create angels-immortal spirit beings, composed wholly of spirit. God created angels before creating the earth. We know they had been created prior to the earth because they sang together and shouted for joy at earth's creation (Job 38:4-7).

Angels were the first thinking, reasoning, separate entities created by God. They were created with minds-ability to know, reason, make choices. But their creation could not be a finished creation until CHARACTER - either good or evil - was developed in them. God initially INSTRUCTED them in HIS WAY - that of righteous character. It was THE WAY of God's spiritual law - the basis of God's GOVERNMENT.

Apparently God placed a third of the angels He had created on earth. They were given opportunity to share in God's creating activities by FINISHING the earth - working in and with its many elements, improving, beautifying, completing it. Instead of improving, beautifying and completing the earth, however, the angels rebelled and brought it to desolation and ruin (Genesis 1:2).

Genesis 1:1 shows the creation of a perfect earth. Genesis 1:2 appears to show the result of the sin and destruction of the angels. "And the earth became without form and void".

"What had long been a beautiful planet had been turned into a cosmic wreck because Lucifer rebelled against his maker. The atmosphere was filled with smoke and poison gases so thick that nothing could live in it...Little or no physical life could survive through that terrible time...For a time our world stayed buried in a deep blanket of gases, smoke

and water. Oceans covered the whole Earth. There was no longer any dry land. The atmosphere was so clogged with clouds of tiny bits of matter that no light could reach the seas" (The Bible Story, Volume 1, p.5-6).

It's possible this global catastrophe may have been around the time that Lucifer tried to overthrow God's throne in heaven (Isaiah 14:12-14). Maybe he lashed out and destroyed what was on the earth at this time because he knew that God was about to begin the next phase of his great plan. Jealousy may have burned in his heart knowing that the "puny" mortal beings God was about to create in His own image would one day inherit all things and rule over everything that He wanted to control.

In the next six days before He rested and created the Sabbath (Genesis 2:1-3) He renewed the surface of the earth (Psalm 104:30) climaxing in the creation of mankind.

DAY ONE – LIGHT (Genesis 1:3-5). On the first day He separated the light from the darkness and cleared much of the smoke and gases that filled the earth's atmosphere so He could begin His work of renewing the surface of the earth.

DAY TWO – THE SKY AND THE OCEANS (Genesis 1:6-8). On the second day He created a vast layer of fresh air and separated the waters above and below the land (called the firmament).

DAY THREE – DRY LAND AND PLANT LIFE (Genesis 1:9-13). On the third day He raised up dry land out of the water and planted vegetation all over the earth.

DAY FOUR – THE SUN AND MOON NOW VISIBLE (Genesis 1:14-19). On the fourth day He finished clearing the smoke and gases which he began on the first day. Once the atmosphere was finally cleaned up the sun and the moon could be clearly seen from the surface of the planet.

DAY FIVE – SEA LIFE AND BIRD LIFE (Genesis 1:20-23). On the fifth day He created the animals of the sea and the birds of the air.

DAY SIX – LAND ANIMALS AND MAN (Genesis 1:24-31). On the sixth day He created the land animals and then His crowning achievement – MAN! Through man He would begin the process of reproducing Himself (Genesis 1:26).

Notice how the first three days poetically mirror the second three days.

God partially cleared the atmosphere on day one and finished the process on day four.

On day two He prepared the sky and the oceans and then on day five He fills the sky and the oceans with animals.

On day three He raised up dry land and put vegetation on it and then on day six He creates the animals to roam over the land.

From a young earth point of view Satan must have rebelled somewhere else in the universe before the earth was created and then he gatecrashed the Garden of Eden and God then allowed him to stay here on earth.

From an old earth point of view Satan rebelled on the pre-Adamic earth before God restored it 6 000 years ago and then God allowed him to stay on the earth.

Regardless of whether we believe in an old earth or young earth we are left with another heavy question. Why was Satan allowed to remain on earth and sway mankind?

God could have judged Satan and removed him before he created Adam. Christ was in greater authority in the universe than Lucifer. There was no need for him to “qualify” to take over the rulership of the earth at that time. He was his boss to begin with and could have assumed control of the earth and removed Satan.

Why didn't God remove him before he created Adam? In his book “The Incredible Human Potential” Herbert W. Armstrong says the following:

“God ordained that 6 000 years of sinning human existence **PROVE FOR ALL TIME** that Satan's way can result only in evils, suffering, frustration, hopelessness, and death. God is allowing Satan to deceive and sway mankind for 6 000 years to PROVE this truth, not only to the human race, but [also] to...the angels” (p.93).

As painful as it would be for mankind, God's decision to allow Satan to stay and tempt mankind for 6 000 years would deepen the contrast between God's way of life and the way of sin. It would allow the worst of humanity to display itself and build up the **FULL** range of sin and wrong experience to prove for the rest of eternity that **sin hurts**. A period of 6 000 years is nothing compared to the rest of eternity.

A similar example of this principle at work is the slavery of Israel in Egypt. God knew it would happen in advance as he told Abraham it would happen (Genesis 15:13). Why didn't God stop it or intervene quicker? In hindsight we can now see the profound lessons and symbolism that the whole experience produced. The whole experience and the exodus that occurred to free them became the great types and symbols of what spiritual salvation is all about. The deeper the pain, the deeper the impression and lessons that can be taught and this can be used by God for a greater good.

After seeing that Genesis 1:16 and Exodus 20:11 can be comfortably interpreted either way to support both cases for a young earth or an old earth we have looked at what the rest of the Bible has to say about the subject.

Based on the rest of the Bible apart from those verses the balance of evidence is my opinion clearly leans in favour of the case for an old earth and that the creation week of 6 000 years ago was a restoration of the earth's surface (Psalm 104:30, Hebrews 11:3).

Genesis 1:1 says: “In the beginning God created the heavens and the earth.”

The next verse, Genesis 1:2, appears to be best translated as “But the earth became a ruin and empty.”

What caused the earth to become a ruin and a wasteland totally covered with water and darkness (itself a symbol of evil and destruction) appears to have been the rebellion of Satan and the fallen angels under him who were originally put over the earth to develop and finish its creation – a process which would test their character and show whether they could be further used in God's great plan for the universe.

There is no need to go to all the extraordinary efforts and re-interpretations that young earth creationists have to constantly go through to re-interpret the evidence of astronomy and geology that we will look at in the next sections that at face value overwhelmingly point us to an old earth.

The apparent conflict between the Bible saying the earth is young and astronomy and geology saying that the earth is very old is no conflict at all.

The Bible really does agree with astronomy and geology after all that it is old and it doesn't require us **(and this should be a relief to all christians)** to re-interpret the vast majority of what astronomy and geology tell us about the world around us.

SECTION TWO: ASTRONOMICAL EVIDENCE

My earliest recollection of hearing the views of a young earth creationist who believed not just the earth but the whole universe was only 6 000 years old was in high school during our fortnightly religious instruction class.

Upon hearing this view in class a thought immediately crossed my mind since I've always been very keen on astronomy. The universe has to be so much older because we wouldn't be able to see stars that are millions of light years that our modern telescopes can see because it takes millions of years for their light to travel to the earth.

When I voiced my objection to his view based on this simple point of astronomy his comeback was that there is possible evidence that light travelled much faster in the past to account for this anomaly. At the time it sounded like a real stretch.

If it were true then that light in order to have travelled millions of light years in only 6000 years needs to have been MILLIONS of times faster than it's current phenomenal speed! That really is a great stretch to believe that.

Another view is that God has miraculously transported to us the light of all these far off galaxies. This view is based on one of at least a couple of possible interpretations of Psalm 104:2 where it says that God "stretches out the heavens like a curtain." The idea is that the universe was once very compressed and the light we see is from that time but after that He stretched space and the universe like a curtain.

If we follow this idea to its natural conclusion if the light we see is from the time the universe was compressed when the light source was close enough to reach us then it follows our measurements should reflect this since astronomers use that light to measure the distance of how far away those stars are.

The measurements show them to be very distant NOT close from an early time when the universe was compressed.

The other main objection to this idea is that God somehow has miraculously transported the light from stars too far for light to have travelled in 6 000 years is that we are seeing events happening in "real time" with very distant stars. One example is the many nova and supernova explosions that have been observed in "real time".

The Crab Nebula was created as a result of a supernova witnessed and recorded by Chinese astronomers in the 1300's. The Crab Nebula has been accurately measured by astronomers to be 6 500 light years away. To this figure we have to add 700 since the supernova happened that many years ago.

This means that the supernova occurred 7 200 years ago. Another recent supernova witnessed as it happened is that of 1987A which went supernova in 1987. This one is far more distant. It has been measured at 185 000 light years away.

How do we know that the most distant stars are millions of light years away to begin with? How do astronomers measure such distances and are they reliable?

One of the major methods of measuring the distance of heavenly objects is trigonometric parallax. Trigonometric parallax is based on a phenomena one can observe by placing one object at a distance and another in front of it at a much closer distance. When you alternate between looking at the objects with just your right eye and then just your left eye you will notice the closer object will move relative to the further object.

Trigonometric parallax is based on measuring two angles and the included side of a triangle formed by 1) the star, 2) the Earth on one side of its orbit, and 3) the Earth six months later on the other side of its orbit. Since we know the distance of the diameter of the earth's orbit as one side of the triangle and we can measure the angles of the shift of the star against the background of other stars its distance can be measured very accurately by simple geometry.

This principle only works with close stars. To measure much distant stars at least a couple of dozen other methods are used. Some of them are extensions of the parallax method while the others are based a number of other different principles. Most of these are described at the following website - <http://www.astro.ucla.edu/~wright/distance.htm>

It is true that for the methods used for distant stars they are measured by indirect methods which are inexact so let's consider a few other points that show the vast size of our universe.

According to the Newton BBS run out of the University of Chicago astronomers have counted and catalogued around one million individual stars and several hundred thousand galaxies. (<http://www.newton.dep.anl.gov/askasci/ast99/ast99320.htm>). They estimate there are still a phenomenal number that haven't been counted on top of the ones that already have been.

We can absolutely rely on the accuracy of the measurements of local stars measured by trigonometric parallax. We know therefore the density of stars in the local volume of space they are contained in. If that density were even hundreds of times greater, all the individually counted stars would still not fit in the volume of space within 6 000 light years of the earth let alone fit in the hundreds of thousands of whole galaxies so far counted.

Einstein theorised that time is relative and can move faster for some objects compared to others if they are travelling at different speeds.

The time dilation theory put forth by some young earth creationists is that time for the rest of the universe is travelling much faster than on earth so that, though they were created at the same time, only 6 000 years has passed on earth while millions of years have elapsed beyond earth's local area in space.

The idea that the local space near the earth on one arm of the Milky Way galaxy is experiencing time at a incredibly slower pace than the rest of the Milky Way galaxy and the rest of the universe to me sounds illogical and it would be much easier to believe that just the local stars to earth were created 6 000 years ago and the rest of the universe is far older.

I'd like to quote an article by Tommy Huxley called "Is the Speed of Light Slowing Down?" found at <http://www.skepticfriends.org/forum/showquestion.asp?faq=4&fldAuto=52>:

Was the speed of light once many orders of magnitude faster than it is now, decaying with the introduction of evil to the universe?

For those young-Earth creationists who insist that our universe is only 6,000 years old (according to their stubborn misinterpretation of the Bible) **[I find it interesting here that this evolutionist doesn't say that the Bible is wrong but says these creationists are misinterpreting the Bible]**, the strongest evidence against them is the fact that we can see the light from stars and galaxies that lie billions of light years away.

Since light travels at a finite speed through space, the distance to stellar objects are often measured by how long it took the light from those stars to reach us...When we look anywhere at the night sky, we are, in fact, looking into the past.

But if our universe is only 6,000 years old, that means 99 percent of the entire visible universe should be invisible. And that not only includes visible light, but the stars' emissions across the entire electromagnetic spectrum from ultraviolet, x-ray, infrared, to radio waves.

Young-Earth creationists have proposed two explanations to resolve the conflict between what they see, and what they think the Bible "says" about what they see.

Their first rationale is that God created the universe with "apparent" age. Although stellar objects could be as far away as astronomers maintain, God created its starlight in transit from a point in space no more than 6,000 light years distant.

This theory's biggest advantage is that it can withstand any scientific rebuttal. If God created the universe with the appearance of age, then all historical evidences are moot. You could just as easily claim that God created the universe yesterday and implanted our memories by design.

How could you refute that premise? Can anyone disprove the miraculous? Aren't miracles exempt from natural laws? When I asked one creationist about this online two years ago, he responded, "So what? The appearance of age hypothesis is scientifically valid because astronomers concoct stranger theories than that!"

Actually, I love this theory because it exposes young-Earth creationists for the notorious hypocrites that they are. For example, many creationists doggedly insist that evolution is a religious dogma sold to a gullible public by conniving hucksters without a single shred of scientific evidence. Phillip Johnson, a creationist lawyer, persistently makes that allegation.

But when creationists then have to turn around and argue that God invented the universe with the illusion of a history that never happened, it puts them in an awkward, uncomfortable position to point fingers at their opponents and shout "Religion!"

Probably for this reason (and others, such as where and when in time and space did supernovas explode?), young-Earth creationists invented a new apologetic — that the speed of light has gradually slowed down during its long transit through space.

According to creationists, the speed of light used to be instantaneous. But after Adam and Eve ate from the Tree of Knowledge of Good and Evil in Genesis chapter three, God cursed his entire creation, causing the speed of light to "decay" with the rest of the cosmos. And if the speed of light slowed down during its long transit through space, creationists can breathe a sigh of relief. Their new Biblical defense puts the age of the universe comfortably back into the 6,000-year-old range where they don't have to mentally juggle conflicting rationalizations.

This is sometimes referred to as the "tired light" theory. And the scientific justification for this hypothesis is built upon a contrived hoax.

If you go to this page at Walter Brown's Center for Scientific Creation web site, Doc Brown says:

“During the last 300 years, at least 164 separate measurements of the speed of light have been published. Sixteen different measurement techniques were used. Astronomer Barry Setterfield of Australia has studied these measurements, especially their precision and experimental errors. His results show that the speed of light has apparently decreased so rapidly **that experimental error cannot explain it!** In the seven instances where the same scientists measured the speed of light with the same equipment years later, a decrease was always reported.”

The CSC is one of the worst creation science organizations for perpetuating obsolete hoaxes. In the above example, Doc Brown breathlessly tells us that his fellow young-Earth creationist, Barry Setterfield, discovered 164 separate measurements that showed the speed of light slowing down over the past 300 years.

Before accepting that claim outright, I’m surprised most creationists don’t pause for a little cautious forethought. Common sense suggests that 17th-century physicists didn’t have modern equipment to measure such phenomena. Instead, these early scientists relied upon hopelessly out-of-date methods and apparatuses.

But worse, Setterfield’s figures are also dead wrong! He says that Roemer in 1675 and Bradley in 1728 measured the speed of light at 301,300 and 301,000 kilometers per second, respectively.

Yet the real historical figures were, in fact, Roemer at 214,300 kilometers per second and Bradley at 295,000 kilometers per second.

Had Setterfield reported these accurate figures, originally, he could have demonstrated that the speed of light increased over the past 300 years, instead! Did Setterfield deliberately misrepresent his data, or did he make an honest mistake? We’ll never know because young-Earth creationists seldom, if ever, print retractions. Instead, they often repeat dead, discredited myths indefinitely. Why? Doesn’t the Bible encourage honesty among Christians?

Setterfield also graphed a curve that extrapolated his bogus figures back to infinity (an absurd, unscientific tactic) so that the speed of light’s infinite velocity started decaying at 4,040 BC, plus or minus 20 years, during the period Setterfield refers to as “Creation and The Fall.”

It’s true that scientists reported inconsistent rates throughout history, but between 1927 and 1960, the fastest and slowest rates were off by only one part in ten thousand.

The figures showed a slight decrease in speed between 1927 to 1935, remained roughly constant between 1935 to 1950, and then slightly increased between 1950 and 1960.

Does that mean the speed of light alternately sped up and slowed down over three decades? Or, as is more likely, did the experimental processes improve over time?

And today, the speed of light has remained unchanged since 1960. Is Barry Setterfield trying to tell us that the speed of light steadily deteriorated from “The Fall” until 1927, wavered up and down for thirty-three years, and then progressed at a fixed, constant rate from 1960 until today? Is Setterfield promoting weird science or magical apologetics?

Doc Brown says other peculiar things about starlight on his web site. For example:

“Starlight from distant stars and galaxies is red-shifted — meaning that the light is redder than it should be. (Most astronomers have interpreted the red-shifted light to be a wave effect, similar to the pitch of a train’s whistle that is lower when the train is going away

from an observer. The greater the redshift, the faster stars and galaxies are supposedly moving away from us.)

“Since 1976, William Tifft, a University of Arizona astronomer, has found that the redshifts of distant stars and galaxies typically differ from each other by fixed amounts. This is very strange if stars are moving away from us. It would be as if galaxies could travel only at specific speeds, jumping abruptly from one speed to another, without passing through intermediate speeds. If stars are not moving away from us at high speeds, the big bang theory is incorrect, along with most other beliefs in the field of cosmology. Many other astronomers, not believing Tifft’s results, have done similar work, only to reach the same conclusions as Tifft.”

It’s hard to find Doc Brown’s point in all this gobbledygook, but I suppose it means that he can’t understand why different redshifts don’t show greater variations of recessional speeds.

Indeed, that’s an interesting physics question. But... so what? Is Doc Brown suggesting that because recessional speeds don’t show a wider variation, that phenomenon, in turn, depicts a universe that is considerably younger than ten billion years? How would that affect the age of the universe? That’s like saying natural selection is impossible because you’ve discovered that different bacteria acquire antibiotic resistance at different rates. Naturally, the argument is irrelevant to the subject you’re trying to refute.

Likewise, some remote galaxies (like Andromeda) are blueshifted, which means that they’re coming toward us. And all these blueshifted galaxies show a narrow range of looming velocities, too. But again... so what? Does that prove our universe is only 6,000 years old?

Here’s another example of Doc Brown’s weird science:

“Atoms behave in a similar way. That is, they give off tiny bundles of energy (called quanta) of fixed amounts — and nothing in between. So Setterfield believes that the ‘quantization of redshifts,’ as many refer to the phenomenon, is an atomic effect, not a strange recessional velocity effect. If a property of space is slowly removing energy from all emitted light, it would do so in fixed increments. This would also redshift starlight, with the furthest star’s light being red-shifted the most. Furthermore, it would also slow the velocity of light and the vibrational frequency of the atom, all of which is observed. Setterfield is currently working on a theory to tie all of this together.”

The above is yet another example of the “tired light” hypothesis. According to Doc Brown, starlight is redshifted because it is “losing energy” instead of showing a Doppler effect. But astronomers have measured identical redshifts across many different frequencies. If starlight were losing energy, the spectral lines of hydrogen would show an identical blurring across all the redshifts. Yet they don’t.

What’s more, creationists never bother to think their speculations all the way through. If they insist that redshifting is due to starlight losing energy, then blueshifting must mean that starlight is spontaneously gaining energy, as well. Young-Earth creationists must be consistent. They can’t switch to a different apologetic in mid-stride.

And if starlight speeding through space is gaining energy, than creationists are violating the Second Law of Thermodynamics (!) because they’re suggesting that starlight is gaining energy from nothing! How would starlight obtain an energy boost from a vacuum?...

But if you want to see an example of Doc Brown’s Really! Weird! Science!, read the following:

“How can we test whether the speed of light has decreased a million-fold? If it has, we should observe events in outer space in extreme slow motion. Here is why.

“Consider a time in the distant past when the speed of light was a million times faster than it is today. On a hypothetical planet, billions of light-years from Earth, a light started flashing toward Earth every second. Each flash then began a very long trip to Earth. Since the speed of light was a million times greater than it is today, those initial flashes were spaced a million times further apart in distance than they would have been at today's slower speed of light.

“Thousands of years have now passed. Throughout the universe, the speed of light has slowed to today's speed, and the first of those flashes — strung out like beads sliding down a long string — are approaching Earth. The distances separating adjacent flashes have remained constant during these thousands of years, because the moving flashes slowed in unison. Since the first flashes to strike Earth are spaced so far apart, they will strike Earth every million seconds. In other words, we are seeing past events on that planet — in slow motion. If the speed of light has been decreasing since the creation, then the further out in space we look, the more extreme this slow motion becomes.

“As one example, galaxies would be seen in slow motion. Galaxies that appear to spin at a rate of once every 200 million years would be spinning much faster. This might explain the partial twist seen in all spiral galaxies. If the speed of light has not decreased, and there is no slow-motion effect, then why do billion-year-old spiral galaxies, at all distances, show about the same twist?”

The above story is pure science fiction that's easily refuted. The fact is, astronomers regularly observe pulsars and Cepheid variable stars whose cycles do not change with distance at all!

And where is Doc Brown's evidence that the speed of light was once “a million times greater than it is today?” A million times? Where did he pluck that extraordinary figure? Did he just make it up?

Conclusion

To summarize, young-Earth creationists from Doc Brown's Center for Scientific Creation have not explained how the universe could be only 6,000 years old when we can still see the light of stellar objects more than 6,000 light years away. In addition:

1. The empirical evidence still suggests that starlight has always traveled at a steady, finite speed through space.
2. When we look at galaxies outside of our own Milky Way, we're still seeing what they looked like in the past before the Biblical creation date 6,000 years ago.
3. The “appearance of age” rationale is scientifically bankrupt. The explanation would falsify all historical evidences because it's pleading to supernatural intervention.
4. Setterfield never recorded a historical decrease in the speed of light. Some of his data is dead wrong. If he'd recorded it correctly the first time, his figures would've suggested that the speed of light increased over the past 300 years instead, making the universe even older than current astronomical predictions!
5. A narrow range of redshift velocities, although interesting, doesn't offer aid and comfort to those who believe that the universe is only 6,000 years old. Doc Brown is making an irrelevant correlation between recessional speeds and the universe's age.
6. Redshifts are not caused by starlight losing energy. Otherwise, how would you explain the existence of blueshifts? A consistent creationist explanation would be that blueshifts are caused by starlight gaining energy from nothing. And, of course, that violates the Second Law of Thermodynamics.
7. All galaxies don't show the same level of maturity. The Hubble Deep Field, among other deep space photographs, shows diverse stages of galaxy formation. And the situation will get worse for young-Earth creationists when NASA launches its Next

Generation Space Telescope in 2007. I feel sorry for Christians who must anticipate each new astronomical discovery with looming dread and frenzied spin doctoring.

8. Stars and galaxies don't move in slow motion relative to their distance. And the speed of light was never, never, "a million times greater than it is today." Both are crackpot claims without a single thread of scientific support.

God is not monkeying with the laws that He has created and He is not supernaturally transporting their light to us faster than what is natural.

While I don't doubt God could have done it that way if He chose to, doesn't it seem a little unbalanced that God would spend five of the six days fashioning our speck of a planet and then only spend one day creating a vastly bigger universe and all that's in it?

The astronomical evidence all points towards a vast universe of vast age in the order of at least hundreds of millions and quite probably billions of years old.

God truly has stretched out the universe. The prophet Isaiah was inspired to write: "To whom then will you liken God?...*It is* He who sits above the circle of the earth, and its inhabitants *are* like grasshoppers, who S-T-R-E-T-C-H-E-S out the heavens like a curtain and S-P-R-E-A-D-S them out like a tent to dwell in" (Isaiah 40:18-22).

The unbelievably vast age of the universe (along with the game of cricket) helps us to get some idea of the incredible eternal nature of God "who inhabits eternity" (Isaiah 57:15).

SECTION THREE: GEOLOGICAL EVIDENCE

Now it is time to look at the evidence presented by geology and paleontology regarding the question of the earth's true age.

Richard Burky who has worked extensively in the field of geology wrote an Ambassador College paper entitled "Creative Development – A Better Explanation Than Organic Evolution" (http://www.friendsofsabbath.org/~surfer/Preadamic%20World/Creative%20Development%20Thesis_Burky.pdf). Before showing the evidence presented by the geological record he has the following introductory comments:

As we look at the earth's geology and the fossil record of life they may force us to alter our previously held understandings and beliefs. They should not shake our confidence in the Creator, the God of truth. Instead, they should inspire awe, respect and give greater understanding of that Creator!

We would never deduce the nature and size of the universe from merely reading the Bible. This is self-evident. In a similar manner we would not understand the vast history of the earth without looking into the geologic record. As we do not expect to understand the structure and mechanics of the universe from the Bible, neither should we expect to understand the extensive history of the earth from the Bible alone. To reject a right and thorough understanding of the physical geologic record is to commit oneself to error.

If the physical record overwhelmingly indicates that the earth is much older than 6 000 years, would we do God a favor by claiming it is not? Would we not rather break the ninth commandment? Should we be false witnesses for God's sake? This would be the supreme contradiction in the worship of the God of truth.

We evaluate the geologic record in light of the biblical record to understand the origin and cause of what we find. Should we not also examine the biblical record in the light of the geologic record to enhance and clarify our understanding of its meaning? Is God not the author of both the biblical and geologic records? Does one contradict the other? Do we accept one and reject the other? Do we not rather have two independent and true records that complement and explain one another? We need to use them both to unveil an accurate picture of the past (p.13-14).

Young earth creationists go to great lengths to try and prove that every great strata of sediment was deposited by the Flood of Noah's day. While some of the fossil deposits (such as marine fossils high up on Mt Everest) and many sediment layers can be attributed to Noah's flood many others can be seen to be vastly more older.

On his Quest for Atlantis website (<http://www.atlantisquest.com/Paleontology.html>) R. Cedric Leonard makes the following comments that relate to this situation:

Geologists and Paleontologists have an innate distaste for catastrophism, and that's understandable. Catastrophists, who in the beginning were identifying every strata of sediment with a worldwide flood, layer upon layer, almost totally discredited the field of geology - and uniformitarianism pulled the science out of the fire.

But now, scientists in both fields are gradually realizing that both catastrophism and uniformitarianism (or gradualism) are at work in nature, and that everything can't be explained using one or the other alone (Gould, 1975).

Geologists divide the earth's history up into many different eras and time periods. The following table gives an overview of how they reckon the earth's history. It's worth spending a few moments getting familiar with the names for the periods and the estimated time frames given by geologists. While the time periods may potentially be greatly expanded than they really were the relative size of each period compared to each other period may well be correct.

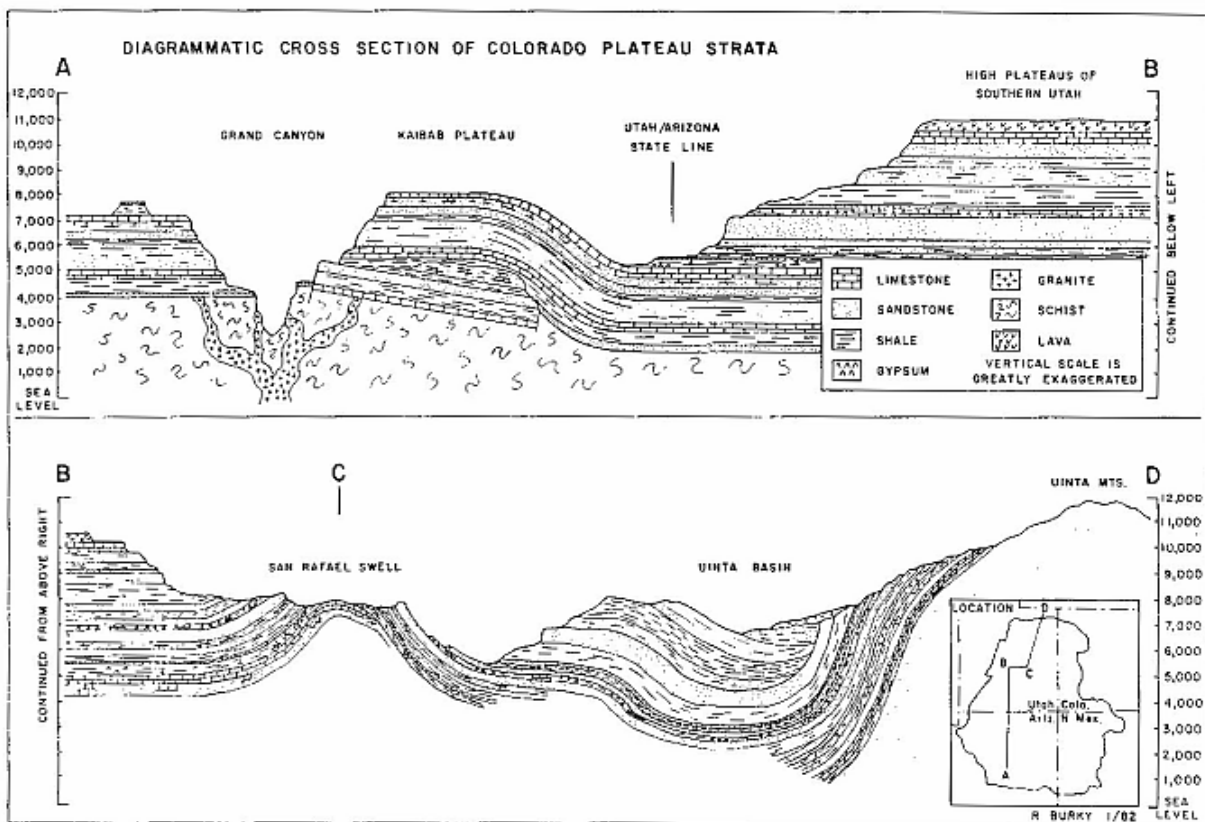
ERA	PERIOD	EPOCH	AGE
Cenozoic	Quaternary	Recent	0 – 11 000
		Pleistocene	11 000 – 1 000 000
		Pliocene	1 – 13 000 000
	Tertiary	Miocene	13 – 25 000 000
		Oligocene	25 – 36 000 000
		Eocene	36 – 58 000 000
		Paleocene	58 – 63 000 000
Mesozoic	Cretaceous		63 – 135 000 000
(Age of the Dinosaurs)	Jurassic		135 – 181 000 000
	Triassic		181 – 230 000 000
Paleozoic	Permian		230 – 280 000 000
	Pennsylvanian		280 – 310 000 000
	Mississippian		310 – 345 000 000
	Devonian		345 – 405 000 000
	Silurian		405 – 425 000 000
	Ordovician		425 – 500 000 000
	Cambrian		500 – 600 000 000
Pre-Cambrian			> 600 000 000

Hardened rock cracks easily when it is folded and many folded layers would only have been folded when wet such as a great flood. This is a solid point on the side of young earth creationists for many geological features.

Richard Burky in his paper "Creative Development – A Better Explanation Than Organic Evolution" in the following extract answers the following key question: "Do the sediments in the strata indicate rapid deposition or do they indicate slow moving geologic processes working over a long period of time?" He gives seven major time indicators that clearly show it is the latter:

Perhaps one of the best places in the world to examine the nature of the geologic record is in the western United States in an area known to geographers and geologists as the Colorado Plateau. This area and its adjoining geographic provinces contain absolute text book examples of the geologic features and geologic time periods. The Colorado Plateau itself covers an area of approximately 140,000 sq. mi. It includes parts of four states: Arizona, New Mexico, Utah, and, as you would expect, Colorado...

Within the boundaries of the plateau the strata are generally lying horizontally or only moderately tilted and faulted. The structure is usually so simple that a layman can clearly discern the sequence of major geologic events. Another benefit of the area is that it is semi-desert. Vegetation does not usually conceal the structure of the strata.



The Colorado plateau and its bordering areas have a remarkably thick stratigraphic record for each of the four major divisions of geologic time: Precambrian, Paleozoic, Mesozoic and Cenozoic. There are literally miles of thicknesses of strata for every one of these major time periods.

The strata are lying in superposition; one on top of the other like the layers of a giant layer cake...The order of deposition is absolutely and clearly demonstrated by mere observation. They are literally, physically stacked one on top of the other.

#1 Time Evidence: Limestone Structures Formed In Situ By Living Algae

Certain algae precipitate lime (calcium carbonate) as they grow in lakes or in the ocean. These algae can build up sizeable limestone structures over a long time period. In the tropical oceans what we commonly think of as "coral reefs" (technically called bioherms) are often made up of a large proportion of lime deposited by algae.

The structures algae form are uniquely characteristic. They consist of thinly laminated, concentric layers of lime, usually with undulating, domed, or rounded surfaces. These are common in many parts of the geologic record.

Their significance to us is to show that the sediment in which they are found was not deposited rapidly. The algae were living and depositing their thin laminae of lime layer by layer for a long time. In some strata in the area we are discussing, these lime deposits are in layers up to 15 or 20 feet thick. In addition, there are many thinner layers above and below the thicker ones. The layers are sometimes scattered through several hundreds of feet of strata. These hundreds of feet of strata are thus shown to have been deposited over an extended time period.

[The diagram on the following page] indicates several different formations which contain substantial algal deposits. In most of these, the algal limestone layers also occur at many different levels within the formation.

#2 Time Evidence: Other "Living Surfaces"

These are surfaces within the strata that show evidence of being on-going living "floors" during the time when the strata was being deposited. Perhaps the most obvious of these are surfaces on which there are petrified tree trunks standing in their growth position.

Their roots reach into the underlying, previously deposited strata. Their trunks are covered by strata that were deposited later.

The time the surface existed as a "living surface" was at least as long as it took the tree or trees to grow. Though they are not necessarily common, standing petrified tree trunks occur in many different locations around the world. Some are 13 feet or more in diameter.

Another obvious indicator are fossil oyster beds. These are commonly six to eight feet thick. Some are scattered through beds of 20 feet or more thickness. In some areas, the shells are so pure and plentiful they are scooped up and used for maintaining roadways in place of gravel!

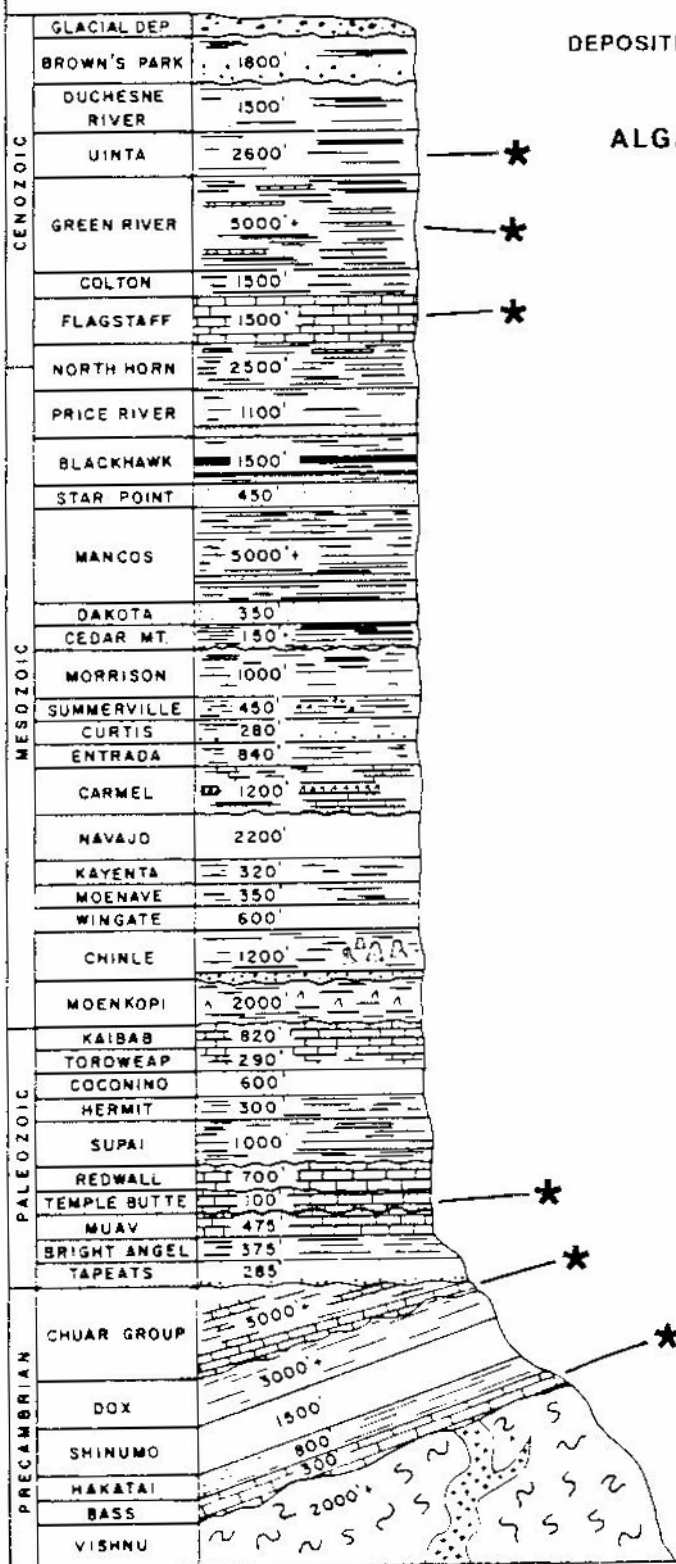
These beds of shells are not mixed with foreign sediments or abraded by extensive transport. They are buried on the surfaces where they lived and died. Dinosaur, four-footed animal and bird footprints occur in many formations, and at different levels within those formations, throughout the strata sequence.

Had the strata been deposited by a worldwide flood, which would have to be at least several hundred feet deep, **animals would not have been walking around and making tracks!**

#3 Time Evidence: Wind Blown Sand Deposits (Fossil Deserts)

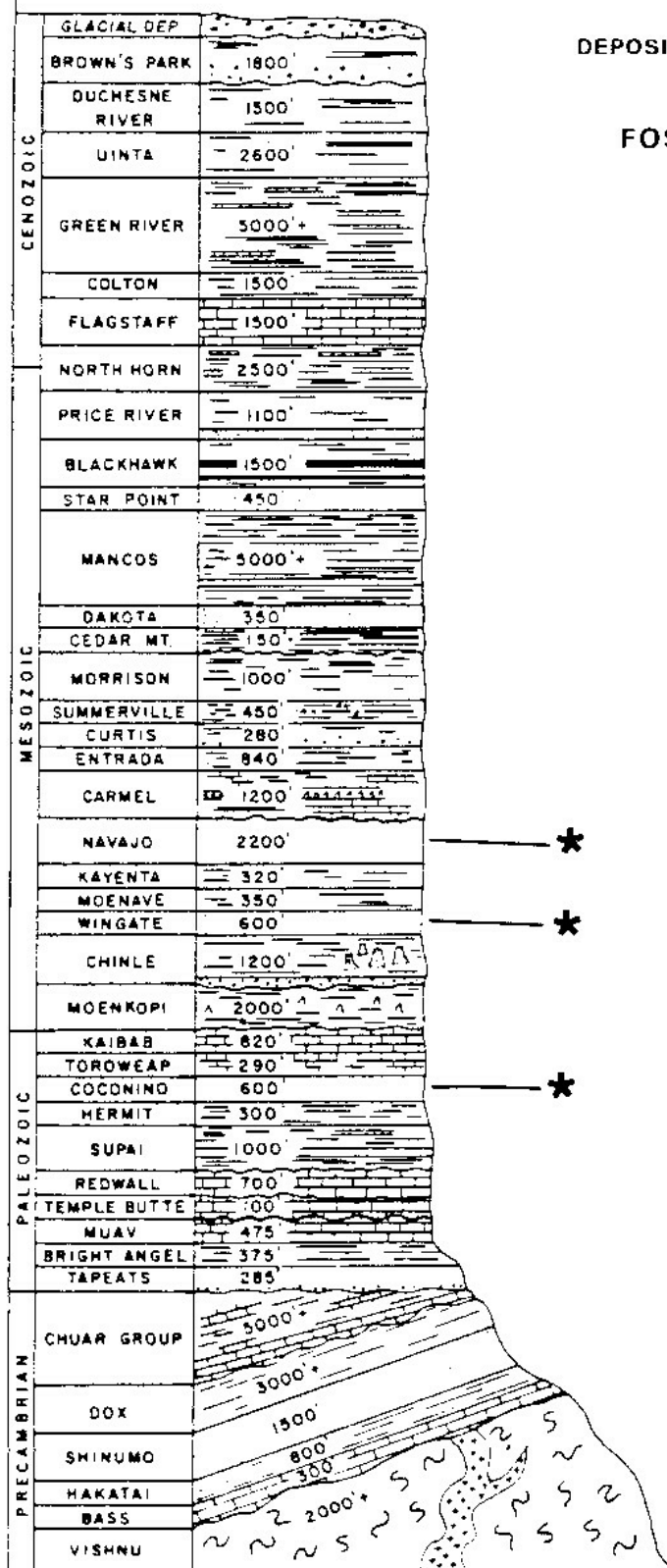
Three of the formations listed are interpreted to be fossil deserts. The materials that comprise the strata of these formations were deposited by the wind. The sand grains are of relatively uniform size.

GEOLOGIC COLUMN OF THE WESTERN COLORADO PLATEAU



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GEOLOGIC COLUMN OF THE WESTERN COLORADO PLATEAU

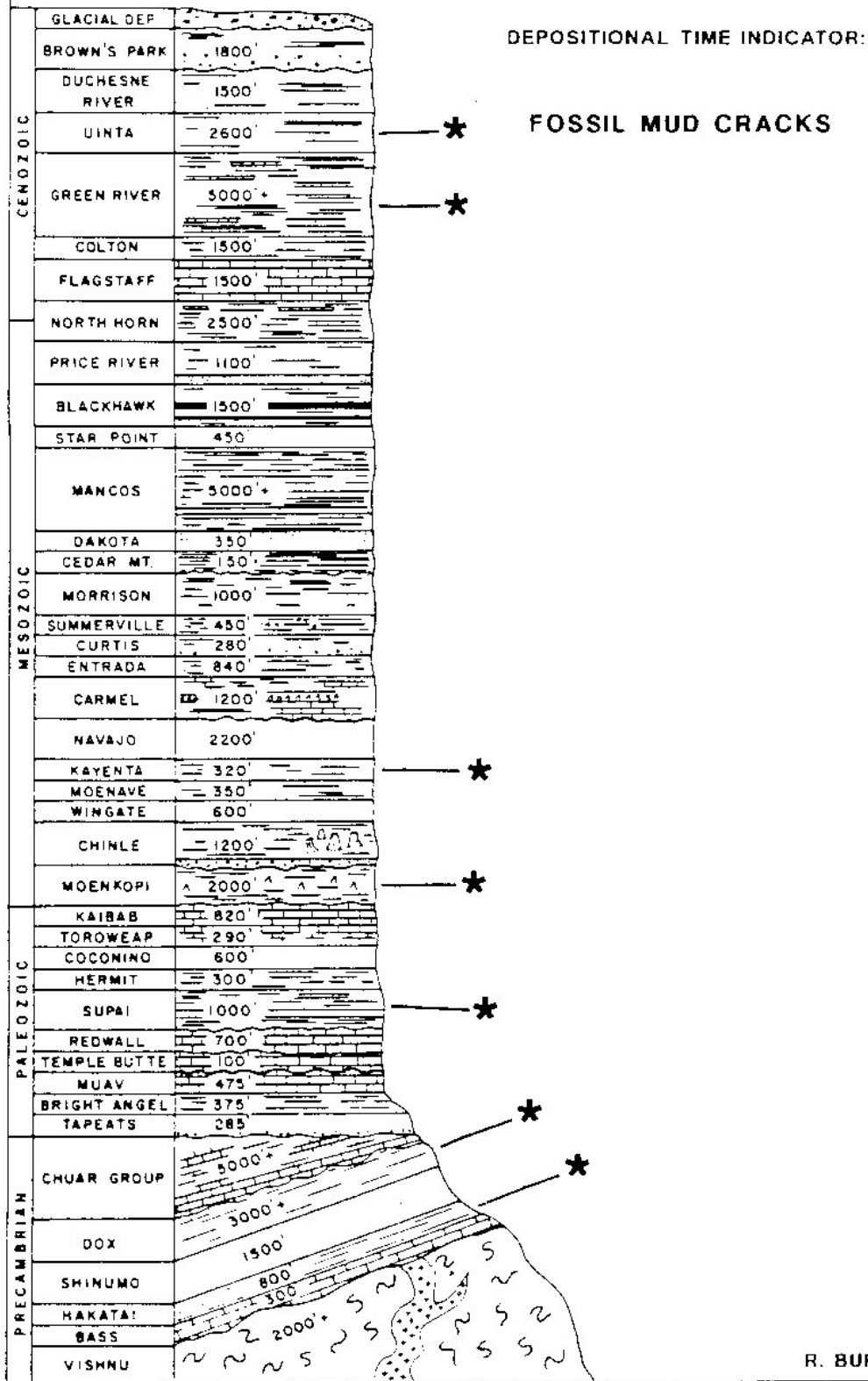


DEPOSITIONAL TIME INDICATOR:

FOSSIL DESERTS

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The finer material has been winnowed out and blown away. The coarser material could not be picked up and moved by the wind currents. The grains are often well rounded and pitted in a way common to windblown sand. Virtually the only record of life is the footprints preserved on some of the bedding surfaces. The bedding pattern of the sand is characteristic of that laid by the wind. Typical sedimentation structures and characteristics observed in strata deposited in water are missing. However, in some of these fossil desert areas there were apparently temporary lakes. In these areas the bedding of the sand is markedly different, even though the composition of the sediments remains the same. This illustrates the point that one can often easily tell the difference between wind and water as a depositional medium.

The conclusion should be obvious. One would not expect to find wind deposited sediments in the middle of those deposited during a catastrophic flood.

#4 Time Evidence: Evaporation Deposits

Within many strata are found thick beds of water soluble minerals. The most common of these are salt (NaCl) and gypsum (CaSO₄). If the sediments in which they occur were deposited under worldwide flood conditions, the water soluble minerals would not have been deposited. They would rather have been dispersed widely by the excessive amounts of water. The only reasonable explanation for the concentration and deposition of these minerals is the evaporation of large quantities of water. This could only have occurred during the depositional time period because the evaporate deposits are covered by thousands of feet of overlying sediment...

#5 Time Evidence: Weathering and Erosion Surfaces

If the geologic strata were indeed caused by a worldwide catastrophic flood, one would not find weathering surfaces and certain erosional features between the strata. In some formations boulders are found that were formed from the erosion of lower (older) solidified formations. This shows that the older formation was deposited, lithified (sediments cemented together), later eroded, and then worn into rounded boulders prior to the deposition of the overlying formation...

#6 Time Evidence: Separation of Depositional Environments

Different strata contain evidence showing they were deposited in different environments. The nature of this evidence can be structural, compositional, chemical and/or biologic. Terrestrial deposits, those formed on the land as opposed to those formed in the ocean, often contain plant fossils, land animal fossils, footprints, and a total absence of marine fossils and depositional features. As an extreme example, one does not find fossil coral reefs in the middle of terrestrial sediments!

If the strata were the result of catastrophic floods one would expect elements of all these different environments to be mixed thoroughly and buried together. Such a jumbled mix is not what you find in the geologic record. Different environments are clearly deposited separately.

A specific example of a formation deposited under marine conditions might help emphasize the point. In central Utah the lower 300 feet of the Mancos formation is made up of very uniform, fine grained sediment that is almost black in color. Through cut this section of the formation microscopic marine organisms called foraminifera are extremely abundant. Each gram of the sediment averages between 1,000 and 5,000 fossils of these organisms. (There is about 28 grams in an ounce.) Fossils of terrestrial organisms are totally absent. With such a concentration of purely marine organisms it is difficult to consider any other environment or mode of deposition than that of a sea bottom receiving sediments over a long period of time.

#7 Time Evidence: Fossil Mud Cracks

The implication of this depositional feature should be obvious. Mud does not dry out and shrink while it is under water! It has to be exposed to the surface and drying conditions for a while before it even begins to crack. If the earth were covered with water, mudcracks would not be forming while the strata were being deposited. The geologic record clearly indicates that the earth has been in existence for a long, long time and that slow geologic processes have been at work throughout that time. The major strata have been deposited in a relatively slow manner under a variety of different environmental conditions. They are not the result of one or more cataclysmic floods of worldwide proportions...The geologic time periods are not hypothetical constructions based merely upon theoretical concepts and ideas. They are instead based upon the observed reality of the physical record (p.15-33).

Look carefully at the illustrations showing the multiple strata where major algal limestone and fossil deserts are. Notice carefully how deep they are. They are not merely a few dozen feet. They are hundreds and even thousands of feet deep. There is so much in geology that can't be accounted for as a result of Noah's flood and can only be accounted for great stretches of time. Todd Standberg in an article entitled "This Old Planet" (<http://www.raptureready.com/rr-planet.html>) offers some more geological evidence for a very old earth:

Mega Meteor Impacts - Researchers have found dozens of meteor-impact craters that are so large they would have profoundly affected the earth's climate. One crater in Northern Canada is around 60 miles wide.

A giant meteor that struck the Mexican Yucatan Peninsula is blamed for causing one of the largest mass extinctions of dinosaurs. It's inconceivable that the biblical writers could have missed reporting an event that would have blanketed the globe with a choking blanket of ash.

Super Volcanoes - Several of the earth's volcanoes periodically have erupted with a force so massive in scale, they would dwarf any eruption that modern man has ever witnessed. The Toba Caldera on the island of Sumatra once exploded with a force that released a volume of ash 3,000 times greater than the amount produced by the 1980 Mount St. Helen's eruption. Core samples taken 2,000 miles away from Toba have measured ash layers as deep as 36 inches...

The Earth's Magnetic Field - Over the past 150 years, there has been a measured decrease in the earth's magnetic field. The decrease is hailed as positive proof that the planet was created around 6,000 years ago. The argument is made that if we went back in time a million years, the earth's magnetic field would be too strong for life to exist. It's baffling that some folks can assume the decline in the magnetic field has been a continuous event. It is common knowledge that our planet's magnetic field has frequently shifted between the North Pole and the South Pole. When volcanic lava erupts onto the surface and cools, the iron molecules embedded in the rock retain a record of the earth's magnetic field. A detailed examination of core drillings retrieved from the ocean floor has found the magnetic polarity of the poles has changed several times.

As to their ages, dating methods clearly are not an exact science. Only upon Christ's return will we be able to find out just how accurate the length of the major geological ages ascribed by geologists really are. They may well be exaggerated by a number of times. They may be half of how long they really were or maybe ten times. We'll just have to wait to find out how close to the mark geologists of our age have got it.

FOSSIL ORGANISMS FOUND IN COLORADO PLATEAU STRATA

GEOLOGIC FORMATIONS		FOSSILS
CENOZOIC	GLACIAL DEP	BISON
	BROWN'S PARK	NO FOSSILS
	DUCHESNE RIVER	EARLY MAMMALS (CARNIVORES, HERBIVORES, RODENTS AND INSECTIVORES), FISH, TURTLES, CROCODILES, LIZARDS
	UINTA	
	GREEN RIVER	EARLY MAMMALS, FRESH WATER SNAILS AND CLAMS, MANY FISH, ALGAL LIMESTONE STRUCTURES, ABUNDANT FLY LARVA, INSECTS (MOSQUITOES, BEETLES, ANTS, FLIES, BEES), LIZARDS, TURTLES, CROCODILES, OSTRACODES, LEAVES
	COLTON	EARLY MAMMALS AND "HORSES" (PHENOCODUS, CORYPHODON, "EOHIPPIUS")
	FLAGSTAFF	FRESH WATER SNAILS AND CLAMS
	NORTH HORN	UPPER STRATA - EARLY MAMMALS LOWER STRATA - LAST OF THE DINOSAURS
	PRICE RIVER	
	BLACKHAWK	DINOSAUR TRACKS, COAL BEDS, LEAVES (FIG, WILLOW, SEQUOIA)
MESOZOIC	STAR POINT	
	MANCOS	SNAILS, CLAMS, OYSTERS, SHARK TEETH, FISH SCALES, CEPHALOPODS, FORAMINIFERA, OSTRACODES, COAL BEDS
	DAKOTA	500+ SPECIES OF PLANTS, INCLUDING FIG, OAK, WILLOW, PALM, SASSAFRAS, POPLAR PETRIFIED WOOD
	CEDAR MT.	
	MORRISON	FIRST MAMMALS, MANY DINOSAURS, CROCODILES, TURTLES, SNAILS, FRESH WATER CLAMS
	SUMMERVILLE	
	CURTIS	CORAL, SQUID-LIKE ANIMALS
	ENTRADA	
	CARMEL	OYSTERS, CLAMS, SNAILS, CRINOIDS
	NAVAJO	DINOSAUR TRACKS
PALEOZOIC	KAYENTA	CLAMS, DINOSAUR TRACKS (RARE)
	MOENAVE	EARLY CROCODILES
	WINGATE	
	CHINLE	FIRST DINOSAURS, EXTINCT LARGE AMPHIBIANS AND REPTILES, EARLY BONY FISH, SNAILS, CLAMS, INSECTS, MANY PLANTS AND LARGE TREES
	MOENKOPI	EXTINCT AMPHIBIANS, COELACANTHS, SNAILS, CLAMS, SEA URCHINS, CEPHALOPODS, OSTRACODES
	KATIBAB	EARLY SHARKS, SNAILS, CLAMS, SPONGES, CORALS, SEA URCHINS, TRILOBITES, CRINOIDS, BRYOZOANS, BRACHIOPODS, CEPHALOPODS, FORAMINIFERS, OSTRACODES
	TOROWEAP	
	COCONINO	ANIMAL TRACKS (20 VARIETIES), INSECT TRAILS — NO ACTUAL FOSSILS FOUND
	HERMIT	PLANTS (SEED FERNS), ANIMAL TRACKS, INSECTS
	SUPAI	BARREN OF FOSSILS IN THE GRAND CANYON AREA
PRECAMBRIAN	REDWALL	SNAILS, CLAMS, EARLY SHARKS, CORAL, SEA CUCUMBERS, TRILOBITES, ALGAE, BRYOZOANS, BRACHIOPODS, CRINOIDS, BLASTOIDS, SPONGES, CEPHALOPODS, FORAMINIFERS, OSTRACODES
	TEMPLE BUTTE	PRIMITIVE ARMORED FISH, ALGAL LIMESTONE STRUCTURES
	MUAV	TRILOBITES, SNAILS, SPONGES, BRACHIOPODS (MARINE SHELLFISH, MOSTLY EXTINCT), EARLY CRUSTACEANS, CYSTOIDS
	BRIGHT ANGEL	
	TAPEATS	
	CHUAR GROUP	ALGAL LIMESTONE STRUCTURES, SOME FOSSILS OF UNCERTAIN IDENTITY
	DOX	
	SHINUMO	
	HAKATAI	
	BASS	ALGAL LIMESTONE STRUCTURES
	VISHNU	NO FOSSILS

R. BURKY 3/82

The Fossil Record

Now we turn our attention to the fossil records. Some strata have a great mix of different fossils that can be due to major floods but other deeper strata clearly show orderly succession of more and more complex life forms the younger they are. Floods would not do that.

Look carefully at the fossils found in the various strata on the Colorado Plateau as shown on the previous page. I have noted the strata that have only marine fossils in them. Strata with only terrestrial fossils are found in between them. How can one worldwide flood account for such a pattern?

It is clear that the area at various times in geological history was submerged under water as part of the ocean at some times and as a lake at other times. This kind of alternation of strata with predominantly terrestrial then marine fossils is found in many places around the world.

Burlingame Canyon near Walla Walla, Washington, was *observed* to form in less than six days. It measures 450 m (1,500 ft) long, up to 35 m (120 ft) deep, and again as wide, winding through a hillside. Young earth creationists have used this as a test case to say that the Grand Canyon could have been formed quite rapidly. Having seen the photos, what layers are there are very similar in appearance which differs dramatically with the Grand Canyon.

Also the deposition of different fossils at different layers with alternating terrestrial and marine fossils is impossible to produce with such a quick phenomena of nature that created Burlingame Canyon.

At the end of a number of the geological ages there were massive extinctions of animals in the fossil record, sometimes wiping out more than half of the species on the planet. After these major extinctions great numbers of new species suddenly came into existence. The suddenness of so many new species is a powerful testimony of God (and, quite possibly, His angelic agents) creating many new species to replace older ones.

One of the very best summaries of the fossil record that answers the question of whether the fossil record was built up over millions of years or only the last 6 000 years is by William Dankenbring in his excellent book "The First Genesis: The Saga of Creation vs Evolution". The following is an extract from chapter 13 entitled "The Fossil Record - Fact or Fiction?"

How old is the earth and life upon it? Was life really created just 6,000 years ago as most creationists believe?

Did God He create fossils in the earth's strata merely to confuse, disturb, and annoy men - as a cosmic joke upon evolutionists?

Special creationists, by and large, interpret the biblical account of creation as stating the stars, the earth, and all life were created suddenly just six millenia ago. They reject almost all the scientific explanations of the geological column and hold that the entire column is primarily the result of Noah's flood.

Since they believe that all life on earth has only existed for about 6,000 years, and that the trilobites, brachiopods, dinosaurs and man were all created within a six-day span, or "creation week," creationists must conclude that all the paleontologic evidence in the earth has accumulated over a total span of 6,000 years. Most of the strata, they likewise tell us, was laid down violently, in the cataclysm known as "The Deluge"...

One popular book in conservative theological circles maintains that virtually all of the geologic column is the result of the Noachian deluge and associated catastrophism. Authors Morris and Whitcomb declare in *The Genesis Flood*:

"Any deposits formed before the Flood would almost certainly have been profoundly altered by the great complex of hydrodynamic and tectonic forces unleashed during the Deluge period. The fundamental principle of historical geology, that of uniformitarianism, however valid it may be for the study of deposits formed since the Deluge, can therefore not legitimately be applied before that time"...

Must the believer in the Bible choose between geological science and his faith in the Scriptures? Is there an insurmountable contradiction between the revelation of Genesis and the record beneath our feet? First, let's take a look at precisely what the rocks tell us, and then examine what the Scriptures assert...

If the record buried in the earth's rocks revealed that simple fossils were always underneath and complex fossils on top, and if the fossils were always found in the same order, then one might be justified in assuming the simple came first. Surprising as it may seem, this is what is found.

Around the world, in vast deposits, simpler organisms such as trilobites are always found in the lowest fossil-bearing strata and are never found in association with dinosaurs, or strata containing fossils of mammals.

Consider the extent of the geologic column:

If a pile were to be made by using the greatest thickness of sedimentary beds of each geologic age, it would be at least 100 miles high. It is, of course, impossible to have even a considerable fraction of this at one place. The Grand Canyon of the Colorado, for example, is only one mile deep.

This column has been arduously pieced together on the basis of similarity of fossils and strata on a worldwide basis. William Smith (1769-1839), called "the Father of Stratigraphy," was the first to observe that different rock layers could be identified by the fossils they contained. Thus he was able to predict the location and properties of rocks below the surface on the basis of the fossils he found exposed in canals and quarries. For the first time it became possible to correlate deposits on a global scale.

Now that a massive geological column has been pieced together, what does it show? Could the entire column be the result of one flood during the time of man? If so, then consider: That global flood had to account for sediment 100 miles deep! Could one deluge, lasting just one year, do the trick?

The Grand Canyon is a classic study in stratigraphy and the geologic column. Almost two miles of sedimentary rocks are found in the Arizona-Utah area, ranging all the way from the Precambrian at the bottom of the Grand Canyon to the Eocenic Wasatch deposit at Bryce Canyon in Utah. From the bottom of the Grand Canyon we can trace the geologic column upward, and as we go northward into Utah, the column continues through the Mesozoic, ending with the Eocene. All but two of the geologic periods are represented.

Robert Macdonald and Dick Burky, both of them experienced in practical geology, have examined these strata, one upon another, and found that the fossils do follow the sequence they are supposed to according to the principle of faunal succession. According to this principle, the fossils always occur in a certain definite order and no other. Their studies showed that there is a natural sequence of fossils. Mr. Burky relates:

"Local sequences such as the one in the Grand Canyon can be correlated worldwide. To a great extent, it is possible to make this correlation by physical criteria only. Where this fails, fossils are used. The use of fossils only is justified

in such circumstances because where both kinds of evidence are available, there is never any contradiction between them”...

The order of the fossils is a matter of direct observation around the globe, and the fossils are used as an index to determine the rock strata only where other physical means cannot be used.

Examination of the Grand Canyon supports this fact. Starting at the bottom of the Canyon, in the upper Precambrian, we find fossil algae. In the Cambrian formations, trilobites and brachiopods are the first animal remains that are found. The first vertebrates appear in the Devonian Temple Butte Limestone in the form of fossil fish. The 550-foot-thick Redwall Limestone of Mississippian age contains the shells of marine animals such as brachiopods, mollusks and sea lilies.

Creationists have suggested that the Coconino formation in the Paleozoic was water deposited and resulted from the Noachian deluge. Militating against this conclusion are several factors. The Coconino formation is a cross-bedded sandstone, and the cross bedding of this formation in the Grand Canyon is of the wind-deposited type. Wind-deposited sand has a characteristic frosted surface, and the grains in the Coconino sandstone show the frosting effect.

Further, the Coconino sandstone has tracks of land animals in it. Tracks would not have been preserved under water in the detail in which they have been found, nor would one expect to find land animals under water. Tracks of this kind are made in sand wet by rain and then covered by more sand.

Overlaying the Coconino in the Grand Canyon, is the Toroweap Formation. Here the fossils are water dwelling brachiopods and gastropods (snails) which are totally missing from the Coconino.

Was the Coconino formation rapidly deposited by water as neo-creationists assume for a Noachian deluge? The surface upon which the Coconino was deposited was a mud surface, and contact line is very sharp. With rapid water deposition, turbulence there would have generated a broad, mixed boundary. Thus there is no evidence the Coconino water-deposited.

Declares Robert Macdonald:

“The rest of the formations to the rim of the Canyon are all classified as Permian, the period closing the Paleozoic era. In the Supai Formation we find the fossil remains of the first land plants and animals. Similar fossils are preserved in the next formation, the Hermit Shale, which includes ferns and cone-bearing plants, insect wings and the tracks of salamander-like animals. The Coconino sandstone, which we discussed earlier, has within its layers of consolidated windblown sand the tracks of reptiles and amphibians. The Kaibab Limestone which rims the top of the Canyon has more marine fossils including brachiopods, coral, sea lilies, sponges and shark teeth.”

As we travel northward into Utah, we pass through a series of Mesozoic and Cenozoic formations more than a mile in thickness. Each one overlies the preceding formation. The Triassic Moenkopi Formation contains the trails of land animals in some places, and sea shells in other places. The Shinarump and Chinle formations contain the petrified wood of conifers. The petrified wood of the famous petrified forests of northern Arizona, preserved in the Chinle formation, includes tree trunks standing in the place they grew. Standing tree trunks are hardly the result one would expect if all the Grand Canyon formations were laid down by the Noachian deluge as neo-creationists assume.

After pointing out the evidence of faunal succession in this region, Macdonald asks:

“Can we account for this worldwide sequence by a universal flood? If during a flood one group of organisms were brought in from one area and deposited, then

another assemblage from another area were deposited on top of that, and so on, we would have a local sequence. But the chances would be against the deposition of fossils in the same order in a local sequence in another area. What would be the chance that the same order would occur in all sequences worldwide? It would be nil!"

A catastrophic flood, such as creationists envision, would tend to mix up sediments and fossils in a more random way than is actually found. Declares Macdonald:

"But instead, we find, for instance, the perfect separation of trilobites and dinosaurs. There is never any mixing of their remains as one might expect if they both died in the same cataclysm."

The only explanation is that each geological horizon does indeed represent a definite time in the past during which the same assemblage of fossils was being deposited in many parts of the world. Slow deposition is therefore necessary to give time for the worldwide faunal changes from one stratum to another.

Faunal succession as evidenced in the geologic column does not prove evolution. It merely shows that life forms have varied from one time to another through geologic history...

Zones are the smallest recognized units within a geologic system such as the Cambrian, Ordovician, Silurian, etc. There is definite sequence of zones within each system, even as there is a definite sequence of systems.

[Zones are a division of time within an epoch. The most recent epochs of geology are known as the Recent, Pleistocene and Pliocene epochs. These three are part of the Quaternary period. The Quaternary period and the Tertiary period form the Cenozoic era which stretches from the time of the dinosaurs extinction to now. Prior to the Cenozoic era we have the Mesozoic, Paleozoic and Precambrian eras.]

The fossil record contains hundreds of zones, each characterized by its own unique faunal assemblage. How could such worldwide sequences have been created, each in agreement with sequences in other areas, based on the sorting activity of water in a Noachian Deluge?

The only logical way to account for faunal succession in the geologic column is time, not catastrophism. The matter is summed up best by Curt Teichert who says:

"It would be easy to repeat this investigation for almost every critical zone fossil or fauna throughout the geologic column for hundreds, perhaps thousands of test cases. The conclusions would be the same. In the words of Jeletzky we would have to 'invoke a miracle,' if for example, we were to assume anything but worldwide contemporaneous deposition for each of the 55 ammonite zones of the Jurassic. Not all of them occur everywhere, but wherever two or more are found in superposition they occur in the same order."

Evidence for the passage of long periods of time is also provided by the studies of paleoecology, the study of ancient environments as indicated by fossil assemblages. Geologists can discern continuous changes in the environment with respect to time by means of such studies. A single catastrophe would not produce an orderly ecological succession of fossils, as the record reveals.

Coal deposits, for example, are commonly found in a sequence of beds, called a cyclothem. A cyclothem indicates a cycle of sedimentation and commonly has a sequence of up to ten beds, often including limestone. The coal beds of Kansas, Oklahoma, Illinois, Indiana, Kentucky, West Virginia and Pennsylvania were formed in the vast coastal swamps that existed during the Pennsylvanian period. Studies of coal

beds reveal changes in the life forms and ecology from the bottom of the beds to the top, with intermittent burials followed by changing environment, and new kinds of vegetation.

Where, then, does this lead us? The evidence for faunal succession and long periods of time in which life existed on earth is overwhelming. How are these facts to be understood in the light of the Biblical record? Do they contradict it? Not at all!

We cannot dogmatically proclaim that "the original creation" took place at a given hour, day, and year in the past. The Bible simply states, "In the beginning..."

The concept of progressive change, growth, and maturation, is distinctly Biblical...The precise processes of creation are not revealed in the pages of Scripture. However, God has given us minds with which to think, ponder, and contemplate life, and its beginnings. He has given us the tools with which to explore the remote time of creation"...

If the radiometric evidence is wrong, and the duration of the geological and paleontological eras is grossly distorted, [Theodosius Dobzhansky, professor of genetics at the University of California] concluded, the Creator must have seen fit to play deceitful tricks on geologists and biologists.

If fossils were placed by the Creator where we find them now, deliberately giving the appearance of great antiquity, then God must be absurdly deceitful. Said Dobzhansky, "This is as revolting as it is uncalled for."

Does it make sense that God created the universe to appear much older than it really is? The idea that God created the universe and the earth with "apparent age" is a common belief among creationists...

Would God go to the trouble of making the universe appear older than it really is? Why would He do this? Is such a "universal joke" in keeping with the character of a God "that cannot lie"?

God is not a great deceiver, or a cosmological practical joker. God had no reason to create a world which appears old, but in reality is only 6,000 years old. The great age of the earth, and life upon it, does not conflict with the Scriptures in any way.

When we take both the Biblical record, and the data amassed by scientists, and let the facts speak for themselves, then we must conclude that God indeed created the world, and life upon it. But much time passed in the process.

The geologic record indicates that God created new forms of life at various stages of His Divine plan. Thus in the earliest strata of the earth containing abundant fossil remains, we find trilobites and brachiopods and other creatures of the sea predominate. At a much later era, we find that dinosaurs - huge reptilian creatures that cause us to stand in awe, today - suddenly appear. At a later time, deciduous trees, mammals, and finally man, take their place in the creation (p.153-169).

Consider the development of technology such as the development of automobiles. Automobiles did not evolve but were created by men all over the globe. Many automobiles are quite different such as four wheel drives, sports cars and buses. Sports cars are much similar to each other but there are many different types and looks of sports cars.

A car graveyard such as a wrecking yard would provide automotive "fossils" for someone in the future to examine. By looking at the sophistication of each car "fossil" he could get a good idea of the order in time of when they were built as new and better features are added to each "species" of car by its creators (since they don't evolve on their own). Similarly we see such development in the fossil record.

The Great Mass Extinctions

Everyone has heard about the extinction of the dinosaurs which occurred at the end of the Cretaceous period according to paleontologists. The Cretaceous was the last period of the Mesozoic era which was the age of the dinosaurs. The Mesozoic era included the Triassic, Jurassic and Cretaceous periods.

The mass extinction at the end of the Cretaceous was but one of several great mass extinctions of life on the planet according to geologists.

The most recent was at the end of the Pleistocene epoch which happened at the end of the last ice age around 11 000 years ago according to geologists. This great extinction period, which is relatively very recent, is of particular interest to us. A little later we will look at the possibility that this great extinction is one and the same as the great flood and destruction spoken of in Genesis 1:2 where the earth became waste and a ruin.

Prior to the Pleistocene extinction geologists and paleontologists recognize at least five mass extinctions. The two biggest extinctions were at the end of the Permian Period, about 250 million years ago, and at the end of the Cretaceous, some 65 million years ago. The Permian extinction saw the loss of 80 to 96 percent of all marine species. In the Cretaceous event, perhaps 60 to 75 percent of marine species disappeared.

There have been many severe mass extinctions, five of which are commonly listed as having been the most intense. Here they are, with suggested causes:

- 1] End Ordovician (c. 445 million years ago)
Killed off 12% of families & 65% species
Cause - large glaciation/sea level fall?
- 2] Late Devonian (c. 365 million years ago)
Killed off 14% of families & 72% species
Cause - impact (Siljan Crater)?
- 3] End Permian (c. 250 million years ago)
Killed off 52 % families & >90% species
Cause - impact (Bedout Crater)?; flood basalts (Siberia); one continent; global warming?
- 4] End Triassic (c. 210 million years ago)
Killed off 12% families & 65% species
Cause impact (Manicouagan Crater); flood basalts (Central Atlantic)?
5. End Cretaceous (c. 65 million years ago)
Killed off 11% families & 62% species
Cause impact (Chicxulub Crater); flood basalts (Deccan, India)?
(Source - http://ethomas.web.wesleyan.edu/ees123/mass_extinctions.htm)

In his book "The First Genesis: The Saga of Creation vs Evolution" William Dankenbring writes the following about these great mass extinctions:

Says Norman D. Newell of the American Museum of Natural History: "Yet the fossil record of past life is not a simple chronology of uniformly evolving organisms. The record is prevailingly one of erratic, often abrupt changes in environment...Mass extinction, rapid migration and consequent disruption of biological equilibrium on both a local and worldwide scale have accompanied continual environmental changes."

The trilobites, according to geologists, finally perished during the Permian period, "one of the most violent in earth history." This period "was one of the most inhospitable periods for life ever known, and the strain on many organisms was severe...Many failed to survive."

But why? Why did vast numbers, entire species and genera, both plant and animal, suddenly become extinct? Uniformitarian principles do not provide a reasonable answer.

The extinction of the trilobites and other animals was associated with great upheavals in nature.

The Permian, which closed the Paleozoic, was a time of great terrestrial and climatic change. At that time the Appalachian mountain chain along eastern North America uplifted. In South America, India, South Africa, Australia, and New Zealand there was extensive glaciation during the Permian period, apparently longer and more severe than the Pleistocene glaciation.

Many ancient plants and marine animals perished. Tree ferns and their giant relatives all but disappeared. The last of the trilobites also died.

Remember that under normal conditions comparatively few fossils are preserved. Here and there, remains of organisms now inhabiting the earth are being preserved as fossils. But some geologic formations contain uncounted millions of fossils!

Writing for the Journal of Paleontology, N.D. Newell Points out that: "Robert Broom, the South African paleontologist, estimated that there are eight hundred thousand million skeletons of vertebrate animals in the Darroo formation".

What could have suddenly buried so many multiple billions of animals? Such fossil graveyards are found around the world. In California, it has been estimated that remains of "more than a billion fish, averaging 6 to 8 inches in length, died on 4 square miles of bay bottom" in ancient times.

In Alberta, Canada, a rich bed of fossil dinosaurs has been found. innumerable bones and many fine skeletons of dinosaurs and other reptiles have been quarried from a fifteen-mile stretch of a local river to the east of Steepleville. This region is a veritable "dinosaurian graveyard." Dinosaurs have also been found buried together in a coal-mine at Bernissart, Belgium. Bone diggers in the rich Morrison Formation in Wyoming found a tremendous source of dinosaur remains:

In the Bone-Cabin Quarry...we came across a veritable Noah's-ark deposit, a perfect museum of all the animals of the period.

Here are the largest of the giant dinosaurs closely mingled with the remains of the smaller but powerful carnivorous dinosaurs which preyed upon them, also those of the slow and heavy moving armored dinosaurs of the period, as well as the lightest and most bird-like of the dinosaurs.

Finely rounded, complete limbs from eight to ten feet in length are found, especially those of the carnivorous dinosaurs, perfect even to the sharply pointed and recurved tips of their toes.

For such perfect preservation, immediate burial was necessary. For so many to have been buried "closely mingled" together would have required extremely unusual circumstances.

The mystery of the ultimate extinction of dinosaurs has puzzled millions. The most dramatic and most puzzling event in the history of life on the earth is the change from the Mesozoic Age of reptiles, to the Age of Mammals.

Writes Carl Dunbar: "It is as if the curtain were rung down suddenly on the stage where all the leading roles were taken by reptiles, especially dinosaurs, in great numbers and bewildering variety, and rose again immediately to reveal the same setting but an entirely new cast, a cast in which the dinosaurs do not appear at all, Other reptiles are mere supernumeraries and the leading parts are all played by mammals..."

Great dinosaurs ruled the land; the pterosaurs and other flying reptiles ruled the sky. In the sea ichthyosaurs and mosasaurs reigned supreme.

Then, with bewildering suddenness, they all vanished. They all disappeared without a single survivor. They perished on all continents! Dinosaur graveyards are found around the world, in California, Colorado, Nebraska, Canada, Belgium, India, South Africa...

Have such gigantic, earth-shaking catastrophes occurred before the time of man? If they did, they pose an awesome problem for the theory of evolution. How could life have "evolved" through gradual accumulations of mutations and natural selection under such inauspicious circumstances?

Contrary to the expectations of evolutionists, violent environmental changes lead to extinction of life forms, but many new life forms appear in the geologic record at such times. Does life suddenly and rapidly evolve into new forms at such times of upheaval? Natural selection is not the sort of process which should be aided by catastrophe - such upheavals in nature should slow down evolutionary processes...

Yet, there were a number of startling changes near the end of the Mesozoic Era. Almost all fossiliferous areas indicate that large groups were being exterminated on the land and in the oceans. Dinosaurs and pterodactyls disappeared from the land. In the ocean the last plesiosaurs, mosasaurs, and ichthyosaurs vanished. Also, the ammonite cephalopods, the belemnites, the large rudistid pelecypods, and certain ancient lineages of oyster-like pelecypods became extinct.

Some long lasting upheaval must have caused all these widely varying types of animal life to perish over a period of a few million years at the close of the Cretaceous period, at the end of the Mesozoic...

At this same general period distinct and sudden change took place in the vegetation of the earth.

Earlier, ferns, cone-bearing plants of various types, and cycads were most abundant on the earth. But after mid Cretaceous times the chief plants were the great group known as the flowering plants, or angiosperms.

The Cretaceous finally ended in a massive upheaval called the Rocky Mountain Revolution. The Rockies, Alps, Himalayas and Andes were raised at that time and much volcanic activity occurred in western North America.

The borderlands of the Pacific became geologically active. Almost all the mountain ranges bordering the Pacific and the islands along its periphery date from the mid-Cretaceous. The great granitic masses of the Andes and Rockies are mostly of Cretaceous age.

Climate was also affected. Large lava flows, igneous activity, erupting volcanoes and earthquake action were the rule rather than the exception.

Vast flooding also occurred. The Cretaceous period saw extensive marine invasions on all continents. "No obvious explanation for this unusual submergence has been discovered," writes William Stokes. "The degree to which Cretaceous seas rose and

covered the African continent lends weight to the possibility that the rise in sea level was worldwide and not merely a matter of subsidence of individual continents" (p.172-176).

The quote from Carl Dunbar that Dankenbring gives is a very interesting one: "It is as if the curtain were rung down suddenly on the stage where all the leading roles were taken by reptiles, especially dinosaurs, in great numbers and bewildering variety, and rose again immediately to reveal the same setting **but an entirely new cast.**"

In the wake of these great extinctions we do not see just the surviving species growing in number due to the extinction of some of their predators but we also see a whole host of new species just explode on the scene. This is something that evolutionists cannot explain though they give fanciful speculation as to how it might have happened.

Stephen Collins writes in his book "As It Was In the Days of Noah":

"Does anyone really believe that wagging a fin through the water will 'presto-chango' turn a fish's fin into a leg so it can climb out on the land? Even if one wishes to believe such a preposterous assertion, changing a fin into a limb is not enough of a leap to do any good; the gills of the fish would need to simultaneously transform themselves into mammalian lungs to allow such a fish to live at all when it washed up on shore. Even though it vexes evolutionists to deal with the facts, it should also be noted that any 'evolving' fish would also need an instantaneous and simultaneous change of its scales to skin to survive even a tiny amount of time out of the water!" (p.17)

Young earth creationists say there could not have been a world where death was on the earth before Adam as death was brought into the world as a curse associated with the fall of Adam. They will quote 1 Corinthians 15:21 where it says:

"For since by man came death, by Man (Christ) also came the resurrection of the dead."

This has nothing to do with animal death. The death being spoken of here is the penalty for sin (Romans 6:23) that man earns from his sins. Animals operate by pre-programmed behaviour and instinct, not choice in the same way that humans choose their behaviour for good or evil (that is, sin). The death being spoken of is not animal sin but human death earned as the punishment for sin.

God never designed animals to live forever. There still would have been animals dying even if Adam had not sinned. Their death is not a result of sin but by design, being only made as temporary creatures.

Before we look more closely at what part Satan and his fallen angels may have had in the pattern of life and death we see played out in the pre-Adamic world let's look more closely at the last mass extinction at the end of the Pleistocene epoch.

The Pleistocene Mass Extinction – Did It Cause the Earth to Become Waste and Void?

At the end of the Pleistocene epoch dated to 11,000 years ago, there were mass extinction events in many different parts of the world, involving at least 200 genera (plural of genus = a group of related species). According to one website:

This [the Pleistocene mass extinction] was different from previous episodes of mass extinction.

It was much more selective, involving mainly the megafauna: the large herbivores (mammoth, mastodons, huge ground sloths, cave bears, woolly rhinoceros, other rhinoceroses, etc.) and the carnivores that fed on them, the dire wolves and saber-tooth cats. There was no accelerated extinction of smaller terrestrial species, plants, or marine organisms.

The following disappeared from America, Europe and Australia: All herbivores > 1000 KG, 75% of herbivores 100-1000 KG, 41% of herbivores 5-100 KG and < 2% of herbivores < 5 KG.

Were these just hunted to extinction, a common theory proposed by many evolutionists? Or on the other hand do we see great climatic changes and a catastrophe that rivalled Noah's flood?

An excellent examination of the Pleistocene Mass Extinction is found on the Quest for Atlantis website (<http://www.atlantisquest.com/Paleontology.html>) which I'd like to now quote from:

Paleontologists the world over know that something catastrophic happened to the large mammals roaming the world during the Pleistocene Epoch. Woolly mammoths, mastodons, toxodons, sabre-toothed tigers, woolly rhinos, giant ground sloths, and many other large Pleistocene animals are simply no longer with us. In fact, well over 200 species of animals (involving millions of individual animals) totally disappeared at the end of the Pleistocene some 10,000-12,000 years ago in what is known to Paleontologists as the Pleistocene Extinction.

Moreover, there is evidence of large geological changes which took place, such as massive volcanism, numerous earthquakes, tidal waves, to say nothing of the glacial melting which raised sea-levels several hundred feet worldwide. It's beginning to look like the Pleistocene Epoch didn't tippy-toe out silently, but rather ended with a large roar...

One of the indicators of the end of the Pleistocene 12,000 years ago is the huge numbers of frozen carcasses in both hemispheres: Canada and Alaska in the western, and Northern Russia and Siberia in the eastern.

Back in middle 1940s Dr. Frank C. Hibben, Prof. of Archeology at the University of New Mexico mounted an expedition to Alaska to look for human remains. The remains he found were not human, but what he found was anything but evidence of gradualism or uniformitarianism. Instead he found miles of muck filled with the remains of mammoth, mastodon, several kinds of bison, horses, wolves, bears and lions. Just north of Fairbanks, Hibbens and his associates watched as bulldozers pushed the half-melted muck into sluice boxes for the extraction of gold. Animal tusks and bones rolled up in front of the blades "like shavings before a giant plane". The carcasses were found in all attitudes of death, most of them "pulled apart by some unexplainable prehistoric catastrophic disturbance" (Hibben, 1946).

The evidence of the violence of nature combined with the stench of rotting carcasses was staggering. The ice fields containing these remains stretched for hundred of miles in every direction (Hibben, 1946). Trees and animals, layers of peat and mosses, twisted and mangled together like some giant mixer had jumbled them some 10,000 years ago, and then froze them into a solid mass. The evidence immediately suggests an enormous tidal wave which raged over the land, tumbling animals and vegetation within its mass, which was then quick-frozen (Sanderson, 1960). But the extinction is not limited to the Arctic.

Paleontologist George G. Simpson considers the extinction of the Pleistocene horse in north America to be one of the most mysterious episodes in zoological history, admitting that in all honesty no one knows the answer. He also admits that this is only a part of the larger problem of the extinction of many other species in America at the same time (Simpson, 1961). The horse is merely the tip of the iceberg: giant tortoises living in the Caribbean Sea, the giant sloth, the sabre-toothed tiger, the glyptodont and toxodon. These were all tropical animals. They weren't wiped out because Alaska and Siberia were experiencing an Ice Age. "Unless one is willing to postulate freezing temperatures across the equator, such an explanation clearly begs the question," say leading Paleontologists (Martin & Guilday, 1967).

Woolly mammoths, woolly rhinoceros, giant armadillos, giant beavers, giant jaguars, giant ground sloths and scores of other entire species were all totally wiped out at the end of the Pleistocene. Massive piles of mastodon and sabre-toothed tiger bones were discovered in Florida (Valentine, 1969), while whole mastodons, toxodons, giant sloths and other animals were found in Venezuela quick-frozen among the mountain glaciers (Berlitz, 1969). All died on a global scale, at about the same time, *circa*. 10,000 B.C.

The picture in Siberia and northern Europe is no different. Just north of Siberia whole islands are formed of the bones of Pleistocene animals swept northward from the continent into the frigid waters of the Arctic Ocean. It has been estimated that some ten million animals lay buried along the rivers of northern Siberia. Thousands of tusks formed a massive ivory trade for the master carvers of China, all from the remains of the frozen mammoths and mastodons of Siberia. The famous Beresovka mammoth first drew attention to the preserving properties of being quick-frozen when buttercups were found in its mouth and undigested food in its stomach. This was no gradual event--it had to be sudden!

And the event was worldwide. The mammoths of Siberia became extinct about the same time as the giant rhinoceros of Europe; the mastodons of Alaska and the bison of Siberia ended simultaneously. The same is true of the Asian elephants and the American camels. The cause of these extinctions must be common to both hemispheres. If the coming of glacial conditions was gradual, it would not have caused the extinctions, because the various animals could have simply migrated to where conditions were better. What is seen here is total surprise, and uncontrolled violence (Leonard, 1979).

Geologists are once more becoming divided on the issue of catastrophism. A few are breaking away from their hard stand of the past, and are at last looking at the problem with more of an open mind. Mr. Harold P. Lippman seems to be objective when he admits that the magnitude of fossils and tusks encased in the Siberian permafrost present an "insuperable difficulty" to uniformitarianism alone, since no gradual process can result in the preservation of tens of thousands of tusks and whole individuals, "even if they died in winter" (Lippman, 1962). Especially when many of these individuals have undigested grasses and leaves in their belly.

Certain misguided workers have vainly suggested that man was the cause of all this death and destruction. In the first place, the remains of the animals outnumber the remains of man a million to one. There is no way the populations of man could have killed this many animals. Some Pleistocene bone sites obviously represent the efforts of Big Game Hunters: fire was sometimes used to drive a herd of animals over a cliff or into a bog to be slaughtered for food. In these instances, the hand of man is rather obvious. Prof. N. K. Vereschagin of the then Soviet Union states bluntly: "The accumulation of mammoth bones and carcasses of mammoth, rhinoceros, and bison found in frozen ground in Indigirka, Lolya, and Novosibirsk bear no traces of hunting of primitive man" (Vereschagin, 1967).

Charles Darwin, the famous naturalist, was shocked by the extinction of species at the close of the Pleistocene. He writes: "The extinction of species has been involved in the most gratuitous mystery...no one can have marvelled more than I have at the extinction of species" (Darwin, 1859). He declared that for whole species to be destroyed in

Southern Patagonia, in Brazil, in the mountain ranges of Peru, and in North America up to the Bering Straits, one must "shake the entire framework of the globe".

Watching them cut the huge block of muck-filled ice containing the mammoth remains on the recent "Discovery" TV special helped me realize: if a woolly mammoth standing out in the grasslands of central Asia were to suddenly die, for whatever reason, his body would simply rot and the scavengers would pick the bones clean.

The only way for this to have happened would be for the mammoth to either fall in a lake or pond and drown or be swept into this mass of vegetation, insects and mud by a massive wave of water. Under which of these two scenarios would such an animal be quick-frozen? His hair and skin were still intact--even the food in his stomach!

Even the Pleistocene geologist William R. Farrand of the Lamont-Doherty Geological Observatory, who is opposed to catastrophism in any form, states: "Sudden death is indicated by the robust condition of the animals and their full stomachs...the animals were robust and healthy when they died" (Farrand, 1961). Neither in his article nor in his letters of rebuttal does Farrand ever face the reality of worldwide catastrophe represented by the millions of bones deposited all over this planet at the very end of the Pleistocene.

Some geologists may be softening their traditional stand against axial tilts and other rotational variations which could be the cause of world catastrophies. Dr. J. R. Heirtzler of the Lamont-Doherty Geological Observatory observed that there has been "a revival of a 30-year-old theory that the glacial ages were caused by changes in the tilt of the earth's axis...there is clear evidence that large earthquakes occur at about the same time as certain changes in the earth's rotational motion." He goes on to say: "Whatever the mechanism of these changes, it is not hard to believe that similar changes in the earth's axial motion in times past could have caused major earthquake and mountain-building activity and could even have caused the magnetic field to flip" (Heirtzler, 1968). It has also been found that the end of the Pleistocene was attended by rampant volcanic activity (Hibben, 1946).

More recently Prof. Stephen Jay Gould, professor of geology at Harvard University, after studying the geological and paleontological record intensively, has championed the cause for open-minded consideration of catastrophism and uniformitarianism. He concludes that both concepts are represented equally in the geological record (Gould, 1977). Prof. Hibben appears to sum up the situation in a single statement: "The Pleistocene period ended in death. This was no ordinary extinction of a vague geological period which fizzled to an uncertain end. This death was catastrophic and all inclusive" (Hibben, 1946).

So it seems the last Ice Age, the Pleistocene Epoch, the Upper Paleolithic Age, and the "reign of the gods" in Egyptian history all ended at about the same time. It appears to me that the evidence, when taken into full consideration, points to a worldwide catastrophe (from whatever cause) which occurred at the close of the Pleistocene Epoch. Can it be merely coincidence that this is the very date (*circa*. 10,000 B.C.) indicated by Plato for the floods and seismic disturbances which led to the sinking of Atlantis and the destruction of its empire?

There are many pieces of the puzzle to sort out to get an accurate picture of how the Pleistocene epoch came to its violent end.

Is the last "ice age" to be associated with it? We see a world of darkness and complete flooding when "re-creation" week begins 6 000 years ago. Sea levels dropping due to glaciation doesn't seem to fit but the complete darkness of Genesis 1:2 suggests a great drop

in temperature with the light of the sun being completely blocked out similar to a nuclear winter.

The tons of mammoth and many other fossils all piled together in Alaska and Siberia suggests the aftermath of great tsunamis. Tsunamis were probably associated with the death of the dinosaurs at the end of the Cretaceous period. The meteor crater associated with the dinosaur extinction is off the Yucatan Peninsula in the Gulf of Mexico. The rich dinosaur graveyards of Wyoming to the north could have resulted from that tsunami.

The selectiveness of the extinctions is very interesting. It is very evident that the main animals which die off completely are the very big animals which God would not have re-created 6 000 years ago as their existence would not be compatible with the presence of mankind similar to why we see very little or no evidence at all of the co-existence of man and dinosaurs.

Those animals that were compatible with man's co-existence God re-created and so paleontologists are not aware of them being wiped out. The extreme size of many earlier animals and plants may also be due to different surface gravity or atmospheric pressure.

The fact that there is very little evidence for the Alaskan and Siberian muck containing remains of early man gives very strong evidence that the destruction and deposition of those megafauna did not occur as a result of Noah's flood but with an early global catastrophe such as a late Pleistocene flood. Perhaps the true date is not 11 000 years ago but closer to 6 000 years ago. How many years it remained in its ruined state we do not know.

It's possible this global catastrophe may have been around the time that Lucifer tried to overthrow God's throne in heaven (Isaiah 14:12-14). Maybe he lashed out and destroyed what was on the earth at this time because he knew that God was about to begin the next phase of his great plan. Jealousy may have burned in his heart knowing that the "puny" mortal beings God was about to create in His own image would one day inherit all things and rule over everything that He wanted to control.

If he and his fallen angels were the cause of the Pleistocene mass extinction then were they also the cause of some of the other great mass extinctions that have happened in the earth's great history?

Some great extinctions appear to have a physical cause. The extinction of the dinosaurs and the great many other species at the end of the Cretaceous period is now attributed to a great meteor strike that struck the earth off the Yucatan peninsula in the Gulf of Mexico.

If this was the way it happened for most of the mass extinctions or great dyings as they are also called could these celestial destructions have been caused by Satan and the fallen angels or were they judgments from God as He saw the pattern of life was degenerating under the control of Lucifer?

Young earth creationists do also use Job 40:15-24 about the behemoth to support their view that all the dinosaurs lived in the time of man and not before. I agree with the assessment that this is a creature similar to, if not, a herbivorous brontosaurus (brachiosaurus) and that there is, at least, a case for a very limited presence of such a now-extinct dinosaur-like creature at the time of Job.

However, such a dinosaur cameo appearance does not conflict with the gap theory. Even if a limited number of species of dinosaurs can be proved to have existed since Adam that does not mean they didn't also exist in the pre-Adamic world.

Lucifer and His Fallen Angels and Life and Death in the Pre-Adamic World

As a training ground to help them develop His character and learn to co-operate with God and co-operate with each other it appears from what we read in Isaiah 14:12-14 that Lucifer and a great number of the angels were put on earth.

Herbert W. Armstrong in "Mystery of the Ages" puts it this way:

"God creates in a principle of duality. I have compared it to a woman baking a cake. When she takes the cake out of the oven, it is not yet a finished production until she puts the icing on the cake. When God created the earth and other planets this system of duality was involved. What had been created was perfect as far as it existed up to that point. But it was not yet a finished or completed creation. God intended the angels to add their own workmanship to the earth's surface. He intended them to work over the surface of the earth, to improve it, to embellish it, beautify it -- in other words 'put the icing on the cake'" (p.64-65).

Herman Hoeh in a series of sermons that he presented on the world before Adam around 1978 gives us these thoughts about what he believes Lucifer and his angels were doing on earth before Adam and Eve and how they ended up rebelling. These are his own thoughts based on inferences in the Bible and the record of nature. This is probably the most sound explanation as to what the angels were doing prior to Adam and Eve that we can come up with until God chooses to reveal it all after Christ's return.

We have taught that angels were on earth before Adam, being trained. What was their primary function? To rule trees and rocks and streams? What were they given experience in? More than merely ruling over each other. We should expand our former concepts and see that they were on earth to govern in a small way (as an opportunity to learn and to prove they could be trusted) before being sent out further into the universe.

Their role on earth should be seen as equipping or qualifying them to rule in the universe. This means they were governing nature in great detail...This is what they were asked to govern - not a barren world, but a world full of life forms throughout geologic history. The Church has a responsibility to teach the role of angels in the world before Adam...

We do not see a world of which we could say that God was 'experimenting' - that term has overtones that could be misunderstood. I would prefer the concept that God was 'developing' a creation in which angels were being challenged and tested on how they would carry out God's government in guiding that nature, and in ruling over ever more complex forms of life...

The world today from nature is not a reflection of the kind of government God intended to be exercised by the angels throughout nature. It is, in fact, a reflection of the Devil's idea of competition, of devouring, and keeping in balance by each thing competing with something else.

[Take, for example, the praying mantis. The female eats the male after it has mated with it. This is clearly a Satanic pattern in nature that God has allowed to continue or revert back to. Another possible example is that of some fish changing from male to female late in their life which moral relativists could use to support transvestism - RW]

Now Mr Armstrong long ago conceived of the idea of competition as being the lifeblood both of our economy and business and society and government. He said this is, as far as he is concerned, the fundamental characteristic of the Devil's philosophy...

As God started out He said: 'I want to make sure the creation reflects the spirit of love, and it's going to be a beautiful world. We are not going to have competition. Therefore the pattern of nutrition and the pattern of birth will not need to have competition to keep everything in that order we see it in' **[We could also add diseases and viruses, etc - RW].**

Can you imagine a World Tomorrow in which mice reproduce at the present rate with no cats to catch the mouse? What would happen in Africa if we took away competition and left the birth rate the same? [In the World Tomorrow (Isaiah 11:6)] we see the whole of nature is going to change, both in terms of what an animal eats and in terms of the reproductive systems, because they are all tied together.

You can look at the whole of geology, and you will not find a single period, geologically speaking, that corresponds to a nature such as will be in the Millennium.

It is all a nature such as we have it today - creatures were devouring in the Tertiary, they were devouring in the Cretaceous, they were devouring in the Mesozoic, they were devouring in the Paleozoic. And for all we know, in the earliest forms we can probably assume the same thing.

There is this competition because it goes hand in hand with the statement Jesus made that the Devil was a murderer from the beginning [John 8:44]. That is, the spirit of competition such as we viewed it reflected itself in the spirit of murder... And indeed murder - the spirit of it - is the consequence of the philosophy of competition.

And he said 'I'll work to take the patterns that God has given and instead of exercising God's government I am going to design it in such a way that nature is in balance by competition, by devouring, by strife - the way of the survival of the fittest - the swiftest mouse getting away most of the time, the slowest cat doesn't survive.'

Now I think when we see that we will have a whole new view - that when we talk about the Devil's government we can in fact extend the Biblical account and we have looked at nature and we have to conclude that the WHOLE of the geologic history that we can uncover reflects a world that had gone astray, and therefore there was no reason anywhere along the line to view that there should not have been some catastrophe -local or of wider range - during this whole period.

The Devil may have gone so far with certain things, and he may have wanted to change certain things, but then God also may have said 'Well look, I want a change. I want certain new life forms to be produced. I will see what you will do with them'...

Now presumably not more than a third of the angels followed the Devil. The other two thirds profited by the experience and took no part in the spirit of competition as developed in the biological world...

It does take some time for some people to poison other peoples minds and it takes time, as Mr Armstrong said, for the Devil to persuade angels, who were greater in knowledge by far than human beings.

The Devil was going back and forth, and he kept arguing with God over the necessity of the creation being patterned after a different philosophy than God's. But God never listened, and the Devil always came back and told the angels that 'God never listened', just as 'Mr Armstrong never listened' - you've heard that. Well God never listened to the Devil either...

Apparently all this time God allowed the Devil the chance to see whether after he had examined the nature that he was governing (or abusing - whatever term you want to use), whether he would change or whether he would not. They finally he came to the point, as Mr Armstrong said, where spirits apparently do set their character, and you can go only so far in the realm of spirit until your attitude so poisons you that it can never be altered [Mr Armstrong used the analogy of the angels' character being like concrete which can be changed for a time while it's wet before it sets permanently - RW].

In a seminar that author Stephen Collins participated in, he made this interesting comment:

I believe that we see in the progression of the dinosaurs a gradual testimony to Lucifer's degeneration. It goes from peaceful herbivores [in the Triassic era] then bringing in smaller predators [in the Jurassic era]. Then in the Cretaceous you have large, armoured herbivores and predators who could fight each other followed by the dinosaurs extinction.

Jan Young in his book "Generations of Heaven and Earth" writes the following speculation about the pre-Adamic world under the rulership of Lucifer:

At least a third of the angels were given the earth as their first real estate property (Jude 6). Implied, if their training while doing the Work of God of beautifying and preparing the earth for the introduction of man was good, they would be granted access to other planets to create viable worlds of them.

Their task has been compared to finishing unfinished furniture. You can buy furniture to complete yourself, which is finished except for varnishing, staining or painting. God created the foundation. It was up to the angels to manage earth's life forms, land, sea and air. Head archangel was Lucifer who became Satan, prince of the power of the atmosphere (Ephesians 2:2).

The world(s) of the dinosaur was the pinnacle of the angels' work. As future worlds were to be dominated by a creation in the image of God, so this world was created in the image of Satan. Satan looks like a dragon or serpent and so did dinosaurs. The epitome was Tyrannosaurus Rex...

Dinosaurs have recently been classified more with mammals in mobility and stance than lizards or reptiles which are slower, with sprawling body and have colder metabolism. Old pictures show them always dragging their tails while today they are shown running with tails horizontal and counterbalancing the head. T. Rex could exceed 30 mph. It was the largest carnivore: 50 feet long and with a 5-foot head.

Dinosaurs were the "lords of the earth". If the dinosaurs had not been rendered extinct, perhaps the dominant form of intelligent life on Earth today would have descended from such a creature having a mixture of humanoid and serpentine features.

Of past tribulation: "Whatever the cause, the latest Mesozoic was a time of trial when many of the hosts were 'tried in the balance and found wanting' - wanting in adaptiveness to their new environment. Walther has picturesquely called it 'the time of the great dying'".

Each world comes to its end, dies, with a great dying; with great travail, pangs of child birth as the next world is born. A new generation of heaven and earth...

Satan was probably rebuked at the end of the Cretaceous ending the Mesozoic, the dinosaur age and the dominance of the image of Satan. "Lower Tertiary fossils are

strikingly different from those of the Cretaceous. Mammals increased explosively..." Comparing the relative amounts of radiation of all ages, "fossil remains from the Upper Cretaceous are highly radioactive. Reptile bones containing as much as 0.11% U_3O_8 have been found in Brazil. Fossils ascribed to earlier eras show much less radioactive content than remains dated at the Cretaceous-Tertiary boundary."

Each geological age ended with a catastrophe. Existing species became bottlenecked or completely extinct. After 'the dust settled' new species were introduced suddenly for the new age...

Catastrophes also sculpted the varied surface of the earth providing mineral deposits, oil and coal for man's later use.

Many creationists in trying to place dinosaurs within the supposed 6,000 years the universe has been in existence have put them within the lifetime of man, thus ignoring the gross disparity this arrangement would make. Not compatible with God's thinking or man's existence (Genesis 2:19-20). Imagine millions of Godzillas roaming the earth with men! Or the terror of the movie JURASSIC PARK!

How true all of this is we will only really find out when God chooses to inform us of what happened back then. For the most part, God chooses to reveal information to us on the spirit world on a need to know basis so there is still a lot about the spirit world that remains a mystery to us.

Some people are opposed to the idea that Lucifer and his angels were given the power to not only design but create living creatures. What Stephen Collins had to say about the degeneration of Lucifer as seen in the progression of the dinosaurs and the fact that dinosaurs are serpent-like in Satan's image gives some support to the possibility that God had delegated some of his creative powers to them to develop and improve the creatures on the earth.

The vast periods of time involved that God tested them may have been part of the reason they became impatient and eventually rebelled.

One might get the impression that the angels interacting and working on just the creatures of the earth might have gotten a little boring for them if that is all that they were doing. It should be kept in mind that man also has been given rulership over the earth (Genesis 1:28) but most of our time is not spent interacting with animals. The vast majority of our time is spent interacting with each other and doing other things. So it most likely was with the angels also.

Let's look at a couple of fascinating creatures found in the Book of Job. The first is the behemoth which we read about in Job 40:15-24:

Look now at the behemoth, which I made *along with you*; He eats grass like an ox. See now, his strength *is* in his hips, and his power *is* in his stomach muscles. **He moves his tail like a cedar;** the sinews of his thighs are tightly knit. His bones *are like* beams of bronze, His ribs like bars of iron. He *is* the first [chief] of the ways of God; only He who made him can bring near His sword. Surely the mountains yield food for him, and all the beasts of the field play there. He lies under the lotus trees, in a covert of reeds and marsh. The lotus trees cover him *with* their shade; the willows by the brook surround him. Indeed the river may rage, *Yet* he is not disturbed; He is confident, though the Jordan gushes into his mouth, *though* he takes it in his eyes, *or* one pierces *his* nose with a snare.

This massive creature has a tail like a cedar tree. It's huge! It eats grass like an ox so we know that it is a herbivore not a carnivore. It does appear to be something like a brontosaurus (brachiosaurus).

God may have had a reason for creating the rare exception of the behemoth to help humble him without being threatened by such creatures.

Young Earth creationists use this as a proof text to say that all the dinosaurs lived in the time of man before the Flood. For starters, this is only one dinosaur if it is one. Even if it is a dinosaur it doesn't prove that there weren't dinosaurs before the time of Adam.

Young Earth creationists have trotted out the occasional piece of physical evidence showing that dinosaurs and man co-existed. Given the sheer number of dinosaur fossils found the evidence of dinosaur co-existence with man is very rare evidence.

Much legendary history does speak of dragons and it is a fair point that this could have been a term used anciently for dinosaurs but, as noted, this only proves a limited number of dinosaurs may be been recreated since Adam rather than all the dinosaur species in the fossil record.

Another creature we read of in the book of Job is the Leviathan which is also translated serpent. We read about the creature in Job 41:

Can you draw out Leviathan with a hook, or *snare* his tongue with a line *which* you lower? Can you put a reed through his nose, or pierce his jaw with a hook? Will he make many supplications to you? Will he speak softly to you? Will he make a covenant with you? Will you take him as a servant forever? Will you play with him as *with* a bird, or will you leash him for your maidens? Will *your* companions make a banquet of him? Will they apportion him among the merchants? Can you fill his skin with harpoons, or his head with fishing spears? Lay your hand on him; Remember the battle—Never do it again! Indeed, *any* hope of *overcoming* him is false; shall *one not* be overwhelmed at the sight of him? No one *is* so fierce that he would dare stir him up. Who then is able to stand against Me? Who has preceded Me, that I should pay *him*? Everything under heaven is Mine. I will not conceal his limbs, his mighty power, or his graceful proportions. Who can remove his outer coat? Who can approach *him* with a double bridle? Who can open the doors of his face, *with* his terrible teeth all around? *His* rows of scales are *his* pride, shut up tightly *as with* a seal; One is so near another that no air can come between them; they are joined one to another, they stick together and cannot be parted.

His sneezings flash forth light, and his eyes are like the eyelids of the morning. Out of his mouth go burning lights; sparks of fire shoot out. Smoke goes out of his nostrils, as from a boiling pot and burning rushes. His breath kindles coals, and a flame goes out of his mouth. Strength dwells in his neck, and sorrow dances before him. The folds of his flesh are joined together; they are firm on him and cannot be moved.

His heart is as hard as stone, even as hard as the lower *millstone*. When he raises himself up, the mighty are afraid; because of his crashings they are beside themselves. *Though* the sword reaches him, it cannot avail; nor does spear, dart, or javelin. He regards iron as straw, *and* bronze as rotten wood. The arrow cannot make him flee; slingstones become like stubble to him. Darts are regarded as straw; He laughs at the threat of javelins. His undersides are like sharp potsherds; He spreads pointed *marks* in the mire. He makes the deep boil like a pot; He makes the sea like a pot of ointment. He leaves a shining wake behind him; *One* would think the deep had white hair. On earth there is nothing like him, which is made without fear. He beholds every high *thing*; He *is* king over all the children of pride.

This creature breathed fire and had water tight scaly skin. It appears to be a water creature and nothing is said about it flying. It very much resembles a dragon which have been written about in legends from China to Greece and Northern Europe.

Both these creatures appear to be extinct now, though the Loch Ness monster, if it is real, could be a leviathan.

Pre-Adamic Hominids

Fred Meldau in "Why We Believe in Creation Not in Evolution" writes the following about the fossil creatures that have been discovered that appear in appearance and functionality to be between modern apes and man:

Austin H. Clark, Smithsonian Institute biologist, said: "Man is NOT an ape and in spite of the similarity between them there is not the slightest evidence that man is descended from an ape...

While man's bodily structure is most nearly like that of the man-like apes, yet all the early remains of prehistoric man so far discovered are distinctly those of man or are the misinterpreted fragments of apes.

No existing link has ever been found. There is no fossil evidence whatever that the most ancient man was not a man. There are no such things as missing links.

Missing links are misinterpretations. Fossil skulls which have been dug up and advanced as missing links, showing connections between man and monkey, have all been shown as misinterpretations" (p.316).

Herman Hoeh in a series of sermons that he presented on the world before Adam around 1978 gives us these thoughts about what he believes regarding pre-Adamic hominids:

When **Australopithecines** appear in Africa (they have not been discovered elsewhere) 'late' in the history of the world we have a creature that can make tools, but not according to a pre-conceived pattern. An outline of development follows. First, we have a creature who looked somewhat like apes, who tended to walk somewhat upright, who made tools, but not enter a pre-conceived pattern - the form of the tool is after the natural characteristics of the rock.

Then we have a creature who walked upright called **Homo Erectus**. He had the capacity to make a tool from a pre-conceived pattern, but did not have modern man's brain capacity so he was not classified as 'Homo Sapiens' because he did not think and reason as man reasons. At this level (of Java Man and Peking Man) the term 'homo' may be misleading because it is not 'man' as a son of Adam. It would be better to correct this misconception of modern evolutionary science to conform to the truth of the world we see. There was no developmental progress or advances in culture of these creatures though they existed for maybe hundreds of thousands of years. If you examine geology with radiometric dating you will have to conclude that there were steps in creation, with the presence of new forms of life at each step which continue for a very long time without variation(evolution).

Now after Homo Erectus we come to...**Neanderthal Man**, where 'man' is again a misnomer. He made tools, a bed, a shelter - but so can other animals. He could make rather involved tools, but had no sense of art. Man is an artistic creature, but this doesn't mean all artistic creatures are men. But no art is ever associated with Homo Neanderthalensis. And there is also the question whether he could speak or just made

sounds with his voice. Then 35 to 40 000 years ago angels had the responsibility of governing a world that changed from creatures lead primarily by instinct to creatures less and less so. There is thus the indication that angels were being trained not just to utilise the natural world of plants and animals and to supervise the climate and all other aspects of nature, but to train creatures who had the capacity to begin to fashion something out of the nature in which they lived, and in more and more complex form....

To our knowledge, 'apemen' do not now exist on earth though there are reports of 'big-foot' and the 'abominable snowman' [If these creatures do exist and they are descendants of the Neanderthals how would they have survived until now? It's possible that the flood of Genesis 1:2 may not have risen anywhere near as high as Noah's Flood and the Neanderthals, per chance, may have been counted as animals on the Ark]...

After Homo Neanderthalensis we come to **Cro-Magnon, or Upper Palaeolithic "man"**, who once again should not be called 'man' but it would be better to use a term like 'hominid' for him. At the close of the Ice Age or Arctic Climate this creature could make tools and houses and could communicate better than any former creature. He could draw - perform aesthetic operations. He could hunt, fish, and make weapons to find his food. Upper Palaeolithic hominids are therefore unusual in that they have gone beyond former creatures in many areas such as art and an aesthetic sense, and in the capacity to communicate ideas. For 20 to 25 000 years they lived on earth and hunted and fished - but they knew no agriculture, they domesticated no animals, they neither sowed nor reaped the fields. While they were here these ideas never penetrated their minds or brains, though they had the other advancements.

In the Bible, Adam and Eve were put in the Garden of Eden and told to 'dress and keep it'. Adam is therefore of sufficient mentality to be a gardener and able to perceive the fundamentals of agriculture. He could also reason about such things as eternal life and death. Adam's older son Cain built a town and was an agriculturalist and tilled the field or used the plough. Adam's second son Abel kept sheep, and therefore may have kept other domestic animals - at least he was advanced enough of an agriculturalist to tend domesticated stock.

Man has not been on earth more than 6 000 years according to the Bible. He starts out capable of thinking of eternal matters, as well as the fundamentals of agriculture and town building. In Isaiah we are told that certain things were engraved with 'the pen of Enoch' or 'the stylus of a man'. There the implication of the Hebrew text is that Enoch, the son of Seth, invented the art of writing, because it was named after him. In Genesis we find 'the book of the Generations of Adam' which implies that in the lifetimes of Seth and Enoch, men had the capacity not only to write, but to convey, preserve, and perpetuate the written word, not necessarily in scroll or codex form.

We should have realized that Homo Erectus did not write, paint, or farm. Likewise Homo Neanderthalensis, Upper Palaeolithic hominids (Cro-Magnon) etc. though they did paint and draw, did not domesticate animals, nor sow and reap, nor build cities, but only preyed on the environment like other animals. Modern man is just a refined and reduced Cro-Magnon man...Angels had been given responsibility to rule creatures who could clothe themselves with skins to keep warm in the cold, but could not think out agriculture. they were being introduced to gradually, more and more complex forms of life.

After Cro-Magnon we come to **Mesolithic man**...Mesolithic man is even more refined than Cro-Magnon. He used tools different from his predecessors, who used just stone. He used bone and wood and jewellery. He also reaped wild grains, though he did not sow, and he domesticated a few animals, but did not yet have pottery. He did live in groups, or tribes, or clans - whatever term we might like to apply from our perspective. Later we have development of the use of clay.

There was just about 4000 years from the beginning of gathering (like berries, nuts, and wild grains) to the conclusion of the Pottery Neolithic period. This was 4000 years in which hominids made the most rudimentary developments, slowly but surely. Angels

were given charge for the first time over creatures that could think out new techniques of domestication, step by step the gradual making of pottery, the invention of a king of village or community - only this in 4000 years from about 8000 to 4000 B.C. do these stages occur.

Compare this with the progress from Adam to Herod the Great. Humans in only 1700 years progressed to the point where God said 'nothing shall be restrained from man that he has imagined to do'. In the last pre-Adamic phase the hominids lived with little instinct and at a level not unlike the most primitive men live today. Apparently, they were not accountable to sin because God did not reveal certain things to them. Though they could not be distinguished skeletally from modern man, they obviously did not have the 'spirit in man' which gives him the capability to reach the moon in 6 000 years of progress. Something was yet missing though they had incipient agriculture and village life.

Even if the angels had not rebelled, presumably the next step would have been the impartation of spirit in man - to create out of matter a form of life which the angels might originally have ruled over. Mr Armstrong has said that God must have always had in mind the possibility of an alternative. If angels would not do what God wanted done, then He would create creatures capable of doing it. And if spirit beings, the angels, would not do it and be obedient, then He would put His Spirit in matter and test that before it is made spirit.

Some one-third of the angels very early on decided to 'do their own thing' and rebelled. Two-thirds apparently remained faithful to God. Following Satan, the disobedient angels abandoned this world as their inheritance. While on earth for a very long period of time, they introduced into nature a world subject to tragedies.

But Romans 8 tells of a time when the sons of God in God's government will regulate nature in an entirely different fashion. 'The creation will also be delivered from the bondage of corruption to the glorious liberty of the children of God. The whole creation (not just man) groans and travails together in pain till now.' Mr Armstrong said this is a reflection of the mind (or brain from another point of view) of the Devil. What we are looking for is the 'manifestation of the sons of God'.

In this we will not have a world that devours itself. Today there is no fish, plant or bird that is not subject to the 'law' that reflects the mind of the Devil. We live in the same kind of world as the whole of geologic history. As far as our knowledge goes, the whole of the history of creation revealed in history shows that same suffering that Romans 8 speaks of, which is unlike the peaceful World Tomorrow.

The laws of reproduction have been woven together with the laws of food consumption so that it reflects the Devil's way of how he thinks nature should be controlled. Now if this were the way God intended it, then the description of the Millennium given by Isaiah would be wrong. But the evidence of geology indicates the Devil was already 'doing his thing'. When he appeared before God, He didn't listen to him because God said it was wrong but God let Him go ahead. Then the Devil went back and argued and reasoned with the angels until a third of them agreed with him that 'God doesn't listen'.

The final act of rebellion was a crisis in which the Devil and the angels perceived that the next step God had in mind was to terminate their experiment...and create a creature like the hominids but one step higher, with the capacity to reason like the mind of God - higher than the creatures with a 'brutish mentality' that is not accountable for sin, but one that has capacity to govern himself and decide for himself apart from any instinct which way he shall go.

When the angels perceived that this was likely the case, they decided to abandon this inheritance, to scale the heavens, and dethrone God so they could set up the universe with a nature in accordance with their ideas of competition and strife and keeping in balance by dividing and conquering and devouring - the 'philosophy' of nature today. But they were cast down, held in restraint.

When God created Adam, in whom the 'spirit in man' was added he had the capacity to reason and build without limit. Every former man-like creature had an upper limit beyond which he could not progress. Suddenly a creature was created who had no upper limit to his thinking in the natural world, no limit to his speculation. We can contemplate eternity and be held accountable for law and sin. God tested Adam at this point and you know that our first two parents failed the test in the Garden of Eden, and the world once again passed to the realm of Satan, and human civilization instead of being developed under God's law and nature under God's law - everything passed under a curse.

Notice in Genesis 3:14 addressed to the serpent: 'Because you have done this you are cursed above all cattle and above every beast of the field. Upon your belly you shall go, and you shall eat dust all the days of our life'. This can be symbolic, but it can also be literal. The implication is that the curse was not only on the serpent through whom the Devil spoke, but also on the cattle--one was cursed 'above' the other. The curse fell on all nature. The creature that was at one time 'more subtle than any beast of the field (Genesis 3:1)' was reduced to crawling on the ground. (And there is the symbolism of the Devil himself being cast to the earth in the past and the future.)

Nature was cursed with the 'philosophy' of the Devil - this is the way he wants to run the world. God put man in this world to see what it is like when run by the Devil's philosophy...

He said, 'Cursed is the serpent ABOVE the rest of the beasts of the field' with the indication immediately that the rest of nature was cursed because in the Garden of Eden we don't have this experience. [Satan's system of devouring came upon the rest of the beasts of the field – RW.]

Adam saw all these animals and there were no feelings in the Garden of Eden that he had to be careful of the lion who was getting hungry at nightfall. There was no fear that we sense in that account...Also He let a curse fall on man and woman. The ground brought forth thorns and thistles, climatic problems, toil and sweat.

This is the world of the last 6 000 years. Man is now responsible for making choices in that world. God then called out a few patriarchs, prophets, apostles and us saints who will be the firstfruits resurrected out of the earth, and assigned (with Christ) the responsibility to restore the government of God on earth, a government which the angels failed to exercise for millions of years.

Dr Hoeh feels that Mesolithic (Stone-Age) man was a hominid without the spirit in man. There is an explanation for the exceedingly high number of occupational levels in Jericho and similar cities that have pushed back the age of stone age man. Donovan Courville in his chronological work "The Exodus Problem and Its Ramifications" (Vol. 2, p.160-161) says if there was a period of time after the Flood where there was severe torrential rain early mud brick buildings would have had a very short life span leading to much rebuilding in a short period of time.

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While man's bodily structure is most nearly like that of the man-like apes, yet all the early remains of prehistoric man so far discovered are distinctly those of man or are the misinterpreted fragments of apes.

No existing link has ever been found. There is no fossil evidence whatever that the most ancient man was not a man. There are no such things as missing links.

Missing links are misinterpretations. Fossil skulls which have been dug up and advanced as missing links, showing connections between man and monkey, have all been shown as misinterpretations" (p.316).

One very good DVD that I have on this subject of these hominids is called "The Image of God". It notes that examination done on the bone structure of the ears of the skeletons of the various hominids and they showed that only Neanderthals and Cro-Magnon had the balance to be bi-pedal. All the others were just extinct ape species.

Neanderthals and Cro-Magnon were concluded to be pre-historic men since Adam was created and that the dates assigned are faulty. A good analysis of the problems with dating methods used for fossils and rocks can be seen in the excellent documentary "Evolution's Achilles Heel."

Cro-Magnon skulls are virtually identical to homo sapien skulls. Neanderthals are slightly different. Early on Neanderthals were illustrated as hairy half-man, half-ape like bi-pedal creatures which suited the push for the evolution of man through the primates. That view has changed significantly as more research has been done on Neanderthal remains. Neanderthal skeletons are a little shorter and more stocky with the characteristic thick brow ridge. It has also been found that the DNA matches homo sapien DNA indicating that they are part of the same species as man.

The characteristic thick brow ridge may be the result of extremely long age as the brow ridge does continue to grow over time according to some. This may indicate the Neanderthals were pre-Flood men.

Those who believe in a young earth believe that the pre-Flood earth contained not only the dinosaurs but all the giant versions of a great many of today's species. Such giantism in the animal world would probably require much less atmospheric pressure and less gravity.

The shorter stature of the Neanderthals seems to fly in the face of a world with giant animals including giant versions of current species.

The shorter stature of the Neanderthals does appear more compatible with a pre-Flood world with a higher atmospheric pressure as a result of a water canopy.

I suspect that there was a greater oxygen content which combined with the higher atmospheric pressure would create an atmosphere similar to a hyperbaric chamber which would have boosted man's health and aided the much longer lifespans of that age.

The world of less atmospheric pressure and less gravity and giant creatures appears to have been an age on the earth before man was created.

I personally believe that the pre-Adamic hominds were all extinct apes and that Neanderthals and Cro-Magnon men were pre-historic men since Adam was created and that the dates assigned are faulty.

Describing the profound difference between the pre-Adamic hominids and mankind William Dankenbring in his book “Beyond Star Wars” makes the following comments:

Modern man can think rationally, can progress from the methods of his forebears. **He can think up new ideas, new concepts, he can imagine, he can create. True man has the capacity to wonder about and investigate himself. He inquires about his origin, his future. He can appreciate beautiful art, music, humor, satire, creativity.**

As Pierre Teilhard de Chardin wrote: ‘Admittedly the animal knows. But it cannot know that it knows...In consequence it is denied access to a whole domain of reality in which we can move freely. We are separated by a chasm—or a threshold—which it cannot cross. Because we are reflective we are not only different but quite other. It is not a matter of change of degree, but a change of nature, resulting from a change of state.’

The vast gap between animal brain and the mind of true man has never been satisfactorily bridged. We are indeed unique. **We have the ability to be self-aware, and our self-awareness is the most compelling of all realities. As individuals, we can experience our own unique self-awareness and individuality.** We possess the wonderful divine gift of a conscious existence.

The human mind—the product of the ‘spirit in man’ which God imparted to Adam and all his descendants—is the great gift which sets modern man apart from all the pre-Adamic races and breeds uncovered by the spade or archaeology and anthropology (p.212).”

In Romans 1:20 we read:

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

Are we giving them an excuse not to believe by insisting on a young earth when all scientific evidence points to an old earth?

We started our review of the evidence by looking at the Bible itself and found that the gap theory is not only consistent with the scriptures but has the balance of evidence leaning its way.

We then looked at the facts of astronomy which clearly prove the universe is very old and now we have seen the evidence of geology clearly points to a very old earth.

God is not playing a cosmic joke on us by giving a young earth the appearance of vast age. His word supports what scientists have found about the earth being very old. Its history truly tells an amazing story which continues to unfold as God reproduces Himself through mankind who have been given this planet to train for that grandest of destinies.