

About the current debate about an Old Earth and a Young Earth A Review of different positions in the light of Scripture and its implications

by Santiago Escuain

Foreword:

This comes from one that in the past has maintained consistently a young-universe position as a necessary consequence from Scripture. This position has changed, because of Scripture. The explanation follows in the context of an examination of the current models generally proposed and defended by Christians as to the origin of the universe. I now accept that the biosphere was indeed made recently together with its inhabitants, with Man as the great purpose of God. But I have come to see that the Scripture is silent as to the age of the Universe and of the Earth as a physical body, placing it in an undated past, not necessarily remote, but not dogmatically recent either. This has followed my reading of works written by G. V. Wigram, Dr. Bernard Northrup, and Gorman Gray, and conversations and messages from other Christians. To all of them my thanks for helping me see some weak points of a model that requires tuning up to the Scripture of Truth. And may we all learn to stick to Scripture, and not to go beyond Scripture. ...

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Short Introduction

As to the relationship between facts and paradigms, and the fitting of the facts into paradigms, the following can be said respecting the different positions of Christians on the Old/Young Earth.

The question being debated has more nuances than is generally admitted. I would therefore first try and present some different options that are commonly held amongst Christians:

Four commonly held views and what they mean

A. Many Christians hold to an old earth with Theistic Evolution (a very old Universe and Earth that has gone through vast ages of Geological and Biological Evolution in a process in which God had something to do. There are different versions and viewpoints within this model. There is no difference as to the general standard model of General Evolution except in the assertion that God was behind it all). In this view, the Genesis Days of Creation are interpreted by some as six indefinite long ages of creation (day-age theory).

B. Other Christians hold to an old earth with Progressive Creation (a very old Universe and Earth that has gone through vast ages of Geological Evolution, with the progressive creation by God and extinction of life forms through the Geological Ages). This view is also accommodated by many with Genesis by means of the day-age theory.

C. There are many other Christians that hold to the Gap Theory, first propounded by Chalmers in 1814, and which teaches a very old Universe and Earth that went through a previous creation by God; this is what would be mentioned in Genesis 1:1. After a long time, the earth *became* without form and void, as mentioned in Genesis 1:2 -some place here the fall and ruin of Satan and a Luciferian Flood, that would have caused part or all of the earth fossiliferous strata, and after that the recreation of the world in six days from Genesis 1:3 to 1:31). It is also known as the ruin-reconstruction theory, and it reads the six days of (re)creation in a natural way. It seeks to support its position with a passage of Scripture that states that the earth was made not "in vain", Isaiah 45:18:

For thus saith the LORD that created the heavens; God himself that formed the earth and made it; he hath established it, he created it not in vain, he formed it to be inhabited: I [am] the LORD; and [there is] none else. ...

The argument is that when God created the earth (in Gen. 1:1), it was not “in vain” (Is. 45:18) (not in vain, not *tohu*; the term used in Gen. 1:2, “without form”), so that it *became* “*tohu*”, *without form*, because of some cause, perhaps Lucifer’s fall, later on; then, God (re)created the earth in six days as man’s abode.

D. The Recent Universe interpretation teaches that “In the beginning” is the beginning of Day One and that it ought to be chronologically linked with the creation of man and with the subsequent history of mankind, so that “the beginning” would have taken place about six thousand years ago. This interpretation relies heavily on the translation of Exodus 20:11 that says:

For in six days the LORD made heaven and earth, the sea, and all that in them is, and rested the seventh day: wherefore the LORD blessed the sabbath day, and hallowed it.

The argument here is that the creation of heaven, earth and sea AND ALL THAT IS IN THEM was in six days, and that there is nothing that escapes this universal statement. Therefore, the reasoning goes, all was made in the six day creational activity, and the creation of the heavens and the earth “in the beginning” is tied chronologically to all the rest.

Merits and demerits of the four commonly held views

Let’s analyse these possibilities. Options A) and B) transmute the days into ages, or at least discount any normal, natural reading of the text, and do not do justice to the text as to what it really says. Then also, option A) assumes the evolutionistic mechanism of Natural Selection and Extinction, and the supremacy of the Fittest over the Unfit as God’s way of doing things. This clashes with the Biblical framework according to which sin enters the *kosmos* by man, and death by sin. So that in the created order of things, placed by God under man, sin entered by man, and death entered consequently by sin. As Tertullian so aptly remarked many centuries ago, confronting Greek philosophical thought:

We, who know the origin of man, know with certainty that death does not come from nature, but from sin.

Tertullian (160-230 A.D.)
De Anima, 52

This difficulty also applies to option B) (Progressive Creationism), where death intervenes in the course of long ages before the entrance of sin; and in principle also to position C) (The Gap Theory), for the same reason. The Gap Theory, on the other hand, is open to other objections, as follow:

The problem with this theory is that it reads into a vacuum between verses 1-2 of Genesis 1 something that it doesn't say! It envisions the sudden creation of a universe and of an earth teeming instantly with a life that was afterwards destroyed.

And when you look at it closely, it cannot claim the support of Isaiah 45:18. To quote this Scripture,

For thus saith the LORD that created the heavens; God himself that formed the earth and made it; he hath established it, he created it not in vain, he formed it to be inhabited: I [am] the LORD; and [there is] none else. ...

is not enough. Why say that it refers to the beginning of creating, Genesis 1:1, to give way to an unmentioned catastrophe? Why not apply it to Genesis 2:1-3, at the end of the work of God? Then He finished His creating. And certainly "he created it not in vain".

Then the words *tohu* and *bohu* do not necessitate a meaning of waste and void in the sense of a destruction, although that can be the meaning in a context of judgment. But in a context of a creation by steps, their meaning, *without form* and *void*, should *not* be understood as *emptied of form* and *voided*, but rather in the sense of *unformed* and *unfilled*. If you have a bottle half “full”, is it half full or half empty? Some say that the optimist says it is half full, and the pessimist says it is half empty. Well, as a realist, I would check first if it is being filled or emptied. In the first case it would be half full. In the second, half empty. The same is with *tohu* and *bohu*. In a context of creation they should *not* be understood the same as in a context of destruction.

A good in depth discussion of this issue is the book *Unformed and Unfilled*, by Weston W. Fields, published by Presbyterian and Reformed, 1976, 245 pages with indexes.

As to position D), the Young Created Universe and Earth, its supporters maintain correctly that Death entered the world *after* the entrance of sin by the disobedience of man, so that there could be no long ages of struggle and death in a context of evolution, which would have happened even if God had guided the process; but then, their distinctive statement is that the Genesis record *requires* a recent origin of *the heavens and the earth* “in the beginning”, as the six days tie up with the Creation of Adam and human history therefrom (see Genesis 5, etc.). The strongest arguments in this view are: Day One begins with Genesis 1:1, and Exodus 20:11 states that God made the heavens, the earth and all that is in them *in six days*. Apparently, these are strong points. Now, what are the facts of the case?

The first fact is that Scripture leaves indefinite the date of creation of the primordial heavens and earth. Keeping the parallel of the other days, Day One begins with “And God Said” in Genesis 1:3. not with “In the Beginning” in Genesis 1:1.

Quoting G. V. Wigram on this passage:

Paragraph 1 contains a narration, in which the origin of this globe (heaven and earth) is ascribed to God; the formless and *void* condition of it is named, and darkness being over the deep; but the Spirit of God also was moving on the face of the waters.

Thus, what first came into being, God ^x*created*; and darkness ^x*was*, &c.; both these verbs are in the perfectly past time. The mind is thrown back to “the beginning,” and to what was originated there, and the state of it. ‘God *created*,’ and ‘what He created *was*,’ &c. Here the object seems to be to mark that the originator was God as Creator.

In paragraph 2 (beginning with verse 3), on the contrary, we get a series of actings connected in one, each acting a step towards a whole. Six days, and their characteristic marks put upon them by God; and then a seventh, a day of rest.

Between these two paragraphs, when they are compared together, there is contrast. They cannot be made into one and the same series. But there may have been a gap between them, undefined as to extent and what was in it. Nothing could more mark, to my mind, the perfectly past time expressed, as above, by ^x“*created*” and ^x“*was*,” and their isolateness as in paragraph 1. They are the first occurrences of the preterite form, and so are the more calculated to impress the mind; and the perfectly past time is stamped upon them by the context, and not only by the name given to them by the grammarians; so that I shall use p henceforth instead of x.

Paragraph 2. Verses 3-5: “And God ^zsaid, ^zlet there be light: and there ^zwas light. And God ^zsaw the light, that *it was* good: and God ^zdivided the light from the darkness. And God ^zcalled the light Day, and the darkness ^pHe called Night. And the evening and the morning were the first day.”² (Heb., “And the evening ^zwas and the morning ^zwas, a first day.”)

Here we have six instances of z (called by the old grammarians *future*, and by the moderns *present*), then one p, and then in Hebrew two more occurrences of z—all translated alike, by a past (but which here, however, would sometimes be more like an imperfect than a proper perfect tense).

It might be translated differently, thus: ‘And God ^zsaith, Light ^zis, and there ^zis light. And God ^zsees the light, that *it is* good: and God ^zdivides the light from the darkness. And God ^zcalls the light Day, and the darkness ^pHe called Night. And evening ^zis and morning ^zis, a first day.’

I see, as I judge, what led Hebrew rabbis astray sometimes, and what also misled Gentile translators into doing violence in the translation of the tenses, and moods too, here and elsewhere. The rabbis, on the one hand, made their observations on the text; and Gentile translators too soon turned to man-made grammars, and too little kept their minds in lively examination of the sacred text. On the other hand, while I admit that the idioms of the languages into which translators (whether Greek, or Latin, or English) sought to render that which was in the Hebrew did not *readily* admit the very forms of the Hebrew, this is all that I can as yet grant. And this, of course, raises a question as to the competency of the translators for their work, and is a proof of the need and the value of every such *tentative* paper as this. But if the mind of the respective translators rules in the LXX, in the Vulgate, in Jerome’s, and in the English versions, ere I dare to submerge the Hebrew idiom, &c., altogether, and go to sea without a compass as to moods and tenses, I would say, *Let us look carefully to the Hebrew, and see what the facts of the case are.*

I observe then, firstly, that the English gives the paragraph 2 as a historical record: “God said, . . . Let there be light, . . . light was;” &c. Now, this is just as if there had been no break after verse 2, and that the account given in verses 1 and 2 (paragraph 1), which was correctly so given, was being continued through paragraph 2.

On the contrary, the Hebrew, more like the gospels by far, seems to give a vividness to what begins in verse 3, because it brings us into the scene itself where God is presented as a living Person in present action, and this living Person’s actions and words characterize the whole paragraph onward.

I know, by their omission of Peh at the commencement of verse 3, that the rabbis did not see that a new paragraph began with verse 3; but any one that weighs the matter will see that it is the commencement of an entirely new paragraph. It has a vacuum before it occurs, sufficiently large for all the geologists, but it has no background; the vacuum is of most undefined space and occupation; on the other side of which is the origin of the globe and its chaos state, yet under the Spirit of God. If the various displays of creation of which the geologists speak occupied that gap, they all had ceased and passed, when the living God is seen as personally present, and introducing an entirely new and orderly system of things. He is in living display, and He says, speaks, sees, divides, calls, creates, makes, &c., and the very variety of His ways and actings is a proof of the same. (Wigram, G. V. Examination of the Hebrew Bible as to the Structure and Idiom of the Language - date 26-10-1877 - Source: *Memorials of the Ministry of G. V. Wigram* - Vol. II - Fifth Edition, pp. 159-163.)

Wigram does not even dream of translating the beginning of verse 2 as “And the earth *became* without form and void”. He does see a discontinuity in the text between the first section, vv. 1 and 2, and the rest of chapter 1 starting with verse 3, where he rightly sees the beginning of day 1, in close parallelism with the other days, that also begin with: «And God said.» But there is no such discontinuity between verses 1 and 2 of chapter One, as “and the earth was without form and void” is simply a statement of the state of the earth as created in its pristine condition; there is an element of *time* involved, but it is in the action of the Spirit of God that moved (or brooded”) upon the face of the deep.

Of course, Wigram makes a passing mention about the possible geologic ages maybe having their place in the unknown lapse of time after the first creation of the Heavens and the Earth, but only as an open possibility. What he is really interested in is into calling attention to the structure of Chapter One, with the fact of an original creation of the heavens and the earth in an indefinite past, with the Spirit of God taking special care of the earth for a time, until Day One begins with the words: “And God said, Let there be light”.

Then, as to Exodus 20:11, it must be said that it has been historically mistranslated as if it said “For *in* six days the LORD made heaven and earth, the sea, and all that in them *is*, and rested the seventh.” The preposition “in” has been added in the translation. And the verb *asah* has the

distinct meaning of «to work on», «to fashion». A more strict rendering is: "For six days hath Jehovah worked on the heavens and the earth, the sea, and all that *is* in them, and rested on the seventh day" [Cp. Young Literal Translation]. The [stellar] heavens and earth were created in the undefined beginning (Gn. 1, v. 1), and then the Spirit of God took special care of this earth (v. 2). Then began Day 1 in v. 3, when God brings light to shine on the surface of the Earth. So, during six days, the Lord worked the [atmospheric] heavens (and perhaps did some working or rearranging of the stellar heavens), the earth and sea, and all that is in them (Ex. 20:11).

The fifth view

The fifth view, the one expounded here, is that of a primordial creation of the [stellar] heavens and the [pristine] earth in a dateless past, followed by the making of a recent biosphere as man's abode. It is maintained that the Scripture gives us no information as to the remoteness or recency of the creation of the stellar heavens and of the earth as a basic planet, but that the formation of the biosphere and the creation of its contents is a recent one, tied up chronologically with the rest of the Biblical History. The formation of the non-fossiliferous sedimentary underlying strata (proterozoic, etc.) is assigned to the activities of the separation of the dry land and of the waters of Day Three, while the fossiliferous strata are assigned to the action of the Flood of Noah's times and later cataclismal activities (like a Continental Split in Peleg's days, Genesis 10:25; and other possible massive cataclisms in the times of the Exodus and of Isaiah and Amoz). This gives a NON-ruin/reconstruction view of the Creation of the Heavens and Earth, that is, the creation of the pristine [stellar] heavens and earth in an undated past, and the recent six-day creation of the biosphere and the filling of the hitherto empty and desert biosphere with life for all of its parts (vegetation, day 3; life in the waters and the air, day 5; the land animals and man, day 6). Death is introduced into the created order of things consequent upon man's sin (Genesis 3; Romans 5:12).

One difficulty that has been voiced is the facts of Day Four. The text of Genesis 1, vv. 14-19, says:

- 14 ¶ And God said, Let there be lights in the firmament of the heaven to divide the day from the night; and let them be for signs, and for seasons, and for days, and years:
15 And let them be for lights in the firmament of the heaven to give light upon the earth: and it was so.
16 And 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.
17 And God set them in the firmament of the heaven to give light upon the earth,
18 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.
19 And the evening and the morning were the fourth day.

Quoting Kelly as to this passage, he says:

Then we are told that "God made," not created, "the two great lights." The language is never varied without purpose. Rosenmüller the younger was an admirable Hebraist, and certainly free enough in his handling of scripture; yet he has no hesitation in his discussion of this question formally, but insists that the genuine force of the construction is not "fiant luminaria" (i.e., let lights be made), but "inserviant in expanso coelorum", i.e., serve in the expanse of the heavens). He compares the singular with the plural of the Hebrew verb for being, and deduces the inference that the language can only express the determination of the luminaries to some fixed uses for the world, and not to their production. (Kelly, William. In *The Beginning - and the Adamic Earth*, 1891, reimpr. 1970, Bible Truth Publishers, pp. 62-63.)

Gray puts it this way:

Perhaps the meaning would be clearer if we thought of "made" in the sense of making a bed. The components of the bed exist, but may not be suitably arranged or ordered properly for use. We talk about having a "hairdo", or having hair "done" at the salon. These examples of "make" and "do" clarify the Hebrew word as used here and in Exodus 20.

God “did” the stars for us, He “made up” the stars, sun, and moon for display on day four (as we “do” hair), arranged for a beautiful display. Accordingly, *asah* can be translated “made” as long as the concept of creation *ex nihilo* is reserved for verse 1. Obviously, God provided the record of creation to enable us to visualize things that happened when no man lived to observe them.

The KJV renders *asah* as “brought forth”, when referring to plant growth or the blossoming of a tree. The night of day four witnessed the “blossoming” of the stars and the Milky Way as these glories pierced the cloud that had not cleared during day one. He is asking us to visualize a glorious, magnificent display! “Brought forth” very appropriately translates the concept, enabling us to appreciate the glory of that unveiling of the heavens. Similarly, when daylight came, God “brought forth” a plainly visible sun. This portrays what an observer from an earth’s-eye view would have seen, had a human witness been present. Excessive reliance on the English *made* has distorted the Hebrew meaning of *asah* and led to interpretive error. (Gray, Gorman. *The Age of the Universe: What Are the Biblical Limits?* Morning Star Publications, Washougal, WA, USA 1999, pp. 47-48.)

From a private communication from a Hebrew scholar, Dr. Bernard Northrup, I quote the following:

But you asked about the early verses of Genesis one. I agree wholeheartedly. I have even dared to speak of a Creation interlude, not referring to the gap theory but rather recognizing that after the universe and the earth were created, the Creator then covered the earth wholly with water (Psalm 104:5-6) out of the fountains of the deep (Job 38). By the way, Biblically it is only possible to identify Genesis 1:1 as the place in the first chapter of Genesis where the universe comes into being. Those who attempt to interpret the "firmament" in Genesis 1:14-19 are ignoring the contextual definition of the Hebrew word, *raqia*. It is the space fixed by the Creator "up over the top of" the universal sea of that time and "down underneath" the canopy of water which He elevated above the atmosphere. I have done as well as I can in translating the six pronouns (three in each case) that are found in the two quote strings above. These dramatically emphasize the atmospheric location of the "firmament," i.e., "the expanse of the atmosphere" in which the birds fly (v. 20).

But I say that Genesis 1:1 is the only place in Genesis one where the creation of the universe is discussed. Otherwise the interpreter contradicts Scripture elsewhere. In Psalm 104:1-6 the Psalmist meditates on Genesis one and exults in the greatness of the Creator. He first refers to the spreading out of the heavens in v. 2. He then speaks of the creation of the angels in v. 4. Finally he speaks of the founding of the earth in verse 5 (and of the first universal, but preparatory flood in verse 6). Job 38 confirms the fact that the angels were present when the Lord laid the foundations of the earth and they rejoiced to see that which the Creator had done.

Therefore the evidence in Job and in Psalm 104 absolutely requires the interpreter of Genesis 1:1 to recognize that this verse alone speaks of the creation of the heavens and of the earth. After all, you will note that earth exists in Genesis 1:2 after it has been covered with the deep ocean. I translate the verse thus: "But the earth, it was in a state of being waste and desolate, and darkness was upon the face of the deep, and the Spirit of God was hovering over the surface of the waters." I translate the first clause in this way because the author has singled out the second of two emphatically direct objects (with the sign of the direct object in both cases) and has created strong contrast from the first verse by singling out only one of the two direct objects and by the use of the conjunction and the stative verb "was in a state of being." Since no other verse in Genesis one describes the creation of the earth, the creationist is forced to recognize that earth, the second of the two direct objects in verse one, obviously was created in verse one. That and Psalm 104 renders it utter nonsense to attempt to make verses 14-19 in the fourth day speak of the creation of the heavenly bodies.

Furthermore, it is the light of the sun which has enabled the Divine Observer on the surface to recognize the distinction between evening and morning as the earth rotated on its axis before (and undoubtedly revolved about) the distant source of light, the sun. Furthermore, if the sun's radiant energy were not penetrating the canopy, earth would have been shrouded with a solid mass of ice. Germination would not have been possible in the latter part of the third day as described in Genesis 1:9-13.

[For this section, see Gorman Gray: *The Age of the Universe: What are the Biblical Limits?* (Washougal, WA 98671-1209: Morningstar Publications, 1999); Bernard Northrup: *In the Beginning - Old Testament 211* (Unpublished classroom notes, Central Baptist Theological Seminary - Minneapolis, Minnesota 55411, 1978); G. V. Wigram: "Examination of the Hebrew Bible as to the Structure and idiom of the Language;" G. V. Wigram: *Translation of Genesis i-ii. 3; ii. 4-25; iii; iv*, in *Ministry of G. V. Wigram*, vol. II/III, originally published, 26.10.1877; Fifth Edition (Addison, ILL.; Bible Truth Publishers, n/d.)

Geology and Bible History

The fundamental basis for a proper exegesis is a *natural* reading of Scripture, which gives a Divinely-revealed framework of History, of an undated creation of the primordial Heavens and Earth, a Recent Creation of the Biosphere/Fall/Flood, and in this framework all the data that surrounds us can be interpreted. There can be all confidence that all observations will in the last analysis conform to the Revealed Truth, even in the face of *apparent* contradictions and difficulties, in the same way as the apparent contradictions and difficulties of Scripture pointed by unbelievers since the times of Porphyry and some noticed by themselves, vanish with a more careful study. There should be no confidence given to the fallen mind of man to be able in an autonomous way to study its surroundings and arrive at sound historical conclusions about the past and of origins, but acknowledgement should be given to the need of guidance, by the Word of God conforming a renewed mind and imparting it the knowledge that comes from God.

It should be kept in mind that the answer given by Charles Darwin to the deep difficulties posed to his theory of Evolution by irreducibly complex structures like the eye and others, that even to him meant a practically irrefutable evidence of Design, was the following argument: "But how could we trust the conclusions of a brain that has evolved from that of monkeys?" He could trust his brain to develop an attempted materialistic explanation that excluded God, but would not trust his brain when all the powers of reasoning led him so much against his will to the fact of Design and of the Designer behind! There *is* a corrupt mind in fallen man.

Man has a God-given command to come to know the world-system God has created and to have dominion over it. That is, the world-system as he can search it in its present observations, for a functional (and responsible) use of it. But man has not been given the task of coming to know the why and how of the origin of the world-system. God has revealed it to him, and man must abide by God's given revelation.

The starting point Theistic Evolutionists and Progressive Creationists, their paradigm, is basically the geological and cosmological framework developed from the stance of Substantive Uniformitarianism, following the basic stance that *the Present is the Key to the Past* and the autonomy of human reason to study facts and arrive to rigorous conclusions, even about the past, without reference to any Revelation. Basically, this is the stance of the modern Academia, following classical Greek rationalism. Fundamentally, then, Old Earthers ["Old Earthers" meaning those who accept long ages for the development of the earth's stratigraphical record] accept in the main the current body of Facts-Interpretations-Inferences-Conjectures called "Modern Science" as being a great big undeniable FACT. Then they go to the Scriptural account of the Book of Beginnings and read it under these constraints and with this mindset.

Note: There are two different concepts labelled Uniformitarianism:

Conceptual Uniformitarianism: Equal causes produce equal effects. This we assume and accept as intuitive and self-evident.

Substantive Uniformitarianism: The position which says that the Present is the Key to the Past. This we cannot accept. We could hardly say that the Present is the Key to the Present! It would be far more accurate to say that the Past is the Key to the Present!!

It must be said that lately many professionals in the field of Geology are modifying the dictum of *the Present is the Key of the Past*, led by the internal evidence of catastrophism in the geological beds, but sticking with the long ages. One example is Derek V. Ager, former professor of Geology at the University College of Swansea. He wrote a book, *The Nature of the Stratigraphical Record*, published by Macmillan, 1973. Another example is S. J. Gould, who has admitted in black and white that Catastrophists were right all along (not that he approves of Flood Geology, of course he does not). Going back to Ager, after examining the ubiquitous evidence for catastrophism, he ends his book with this words: "In other words, the history of any one part of the earth, like the life of a

soldier, consists of long periods of boredom and short periods of terror". Where Lyell had interpreted the geological layers as evidences of long ages, Derek Ager attributes the actual layers to short periods of terrors, and the long ages of geology he places between the layers, in the "unconformities", which he INTERPRETES as VERY LONG periods of time. This shows what INTERPRETATION means, in this case maintaining the LONG AGES paradigm. If they do not go in the layers, you place them *between* the layers, but you KEEP the PARADIGM.

Now, a PARADIGM can accomodate facts, reinterpret them or pigeon-hole them as strange phenomena that hopefully will eventually find its explanation *within* the *Paradigm*. Up to a point, of course. There is a point in which a PARADIGM must break, if FACTS, not interpretations, are really contradictory and cannot be acommodated.

The difference between a Paradigm that takes its historical framework from God's revelation read in a natural way (understanding by "natural way" what is clearly and normally understood by the normal use of language) and a paradigm that takes its historical framework from the principle of Substantive Uniformitarianism is that the first one is based upon the Word of God, and the second is based upon man's capacities. It is based on man's self-sufficiency. This is the principle of "Modern Science", which is a body of facts and INTERPRETATIONS and INFERENCES and CONJECTURES, based on this principle and worked by human reason without consideration to any Revelation.

So let's consider different areas and see how the Paradigms can accept the facts and assimilate them, or how are contradicted by them, explained away or reserved for adequate or inadequate reasons for future explanations.

CONSIDERATIONS TO KEEP IN MIND VIS A VIS THE COMMON YOUNG UNIVERSE SCENARIO

All the foregoing means that the age of the universe is, biblically speaking, an open question. It might be an old universe, or it might be relatively young. The same happens with the age of the Earth as a physical body. Its creation belongs "In the beginning". What is certainly a recent work, according to Scripture, is the biosphere and life, all the work of the Six Days. As to the age of the universe and the Earth itself, different criteria have to be weighed, coming from the data we receive from the universe. There are many puzzling observations, and the matter is by no means a simple one:

A. Different cosmological and geophysical factors seem to indicate a not so old universe: Measured decreases on the speed of light.- Apparent diminution of the size of the sun.- Neutrino influx.- Decay of the Earth's magnetic field.

B. The "parentless" Polonium radiohalos would imply the sudden creation of the rock basement of the Pristine Earth's, but give no necessary hint about its age.

C. Sedimentary rocks belonging to the activities of the Third Day, Flood and Post-Flood are of recent origin. Fossiliferous rocks are necessarily posterior to the Creation-Week, and must belong to the cataclismic Universal Flood of Noah's time and to posterior cataclismic activities at grand (but not universal) scale (i.e., a Continental Division in the times of Peleg, with gran consequences). (For a helpful outline, see Bernard Northrup, *Genesis of Geology*.)

D. Coalified halos - evidence as to a limited and young age of Flood and Post-Flood sedimentary rocks.

E. There is a need to check on the radiometric age of volcanic rocks intruded in or deposited on Flood or Post-flood Sedimentary Rocks. Is their age measured from the time of solidification from magma? The age of deposition of these rocks must be recent in the Diluvial scenario. Basically, the same argument applies as in a YE model. The radiometric ages of rocks face real objections and can and should be addressed in a critical way as per Slusher and others [U-Th.Pb, Rb-Sr, K-Ar].

F. The accumulation of Helium in the atmosphere would have to do with the recent creation of the atmosphere as such during the recent Creation Week.

G. The remote age given to the universe has as a basis the hypothesis of the Big Bang and of stellar evolution. If the stars and galaxies were created as functioning entities, how old would the universe be?

H. The immensity of space, and interstellar distances. What has been really established?

I. The behaviour of light. Discounting illusions, how long has taken for light from the farthest reaches of the universe to reach us? What is really known?

Consideration #1. We have the FACT of sedimentary fossil-bearing formations.

Consideration #2. Field studies show that the formation of these layers not only bear a cataclysmic interpretation, but demand it, *including* formations traditionally considered and presented by Old-Earthers to demand long ages for their formation, like:

(a) the so-called evaporite deposits [See V. I. Sozansky, "Origin of Salt Deposits in Deep-Water Basins of Atlantic Ocean", *Bulletin American Ass. of Petroleum Geologists*, vol. 57 (March 1973). Quoted in *Scientific Creationism*, Creation Life Publishers, California, 1974.]

(b) the so-called fossil reefs [See "Is the Capitan Limestone a Fossil Reef?", *Creation Research Society Quarterly*, Vol. 8(4):231-248, March 1972. Reprinted in *Speak to the Earth*, pp. 16-59, Presbyterian and Reformed, 1975. It also has a treatment of "evaporites" or anhydrites.]

(c) the formation of coal and oil, which had been *supposed* to take long aeons, has been shown by experiments to form in appropriate conditions in matter of days, and it seems that the formation of coal and oil may be due not only to organic origin, but rather to a combination of organic coalification (coal) and decomposition (oil) combined with outgassing from the interior of the planet, in a kind of catalytic event. See "The Carbon Problem", by Glenn R. Morton, in *Creation Research Society Quarterly*, Vol. 20(4):212-219, March 1984.

Consideration #3. We have the FACT of a very small amount of helium in the atmosphere. Now, in the desintegration chains of radioactive elements alfa-particles are produced, which translate into helium atoms. The nature of helium makes its escape from atmosphere non-feasible due to the gravity of Earth. So, the most normal interpretation here is that this points to a recent Earth, Young-Earthers contend, while Old-Earthers shrug it off assuming that somehow it can be accounted by some unknown mechanism of escape.

Consideration #4. The ratios of Uranium/Lead, Potassium/Argon and other methods are interpreted by Old-Earthers as ages. Young-Earthers contend, amongst other and weighty considerations, that in all known instances of rocks of known historical ages of, for example, 200 years antiquity since their formation (Sicily, Hawaii and other places), they have given ALWAYS very long ages, in the hundreds of millions to the billions of years. If this is so with all rocks of known small age that have been measured, what about those rocks that have been measured as giving ALSO long ages, but of which we do not have a historical testimony? How can we know that they are not also RECENT, but giving also isotopic ratios interpreted as LONG AGES? The fact is that these isotopic ratios admit (to say it softly) another interpretation, which explains all these and other anomalies: the MIXING MODEL. This issue and others are dealt with in the article by Russell Arndts, William Overn and Mike Cramer, "Pseudo-Concordance in Radioactive Dating by means of U-Pb and other systems", in *Bible-Science Newsletter*, Vol. 19(2):1,3-4, 7, Feb. 1981; Vol. 19(4):5-6, April 1981, and Vol. 19(8):1, 2, August 1981. Also, "A Demonstration of the Mixing Model to Account for Rb-Sr Isochrons", by Larry S. Helmick and Donald P. Baumann, in *Creation Research Society Quarterly*, Vol. 26(1):20-23, June 1989.

Consideration #5. The vastness of the universe and the time the light takes for arriving to us. Old-Earthers maintain that it is a fact that light has taken billions of years to reach us from the most

distant galaxies, appealing to a constancy of the speed of light (300,000 km/s), and that therefore the Universe IS old. Classical Young-Earthers maintain that the constancy of the speed of light is an ASSUMPTION, besides the fact that there are possible explanations to this question. There SEEMS to have been a decrease in the speed of light, and the reasoning that older systems had a big error is not too valid, since the error margin for those methods is known and is smaller than the magnitude of the difference. See the careful research report on this issue, *The Atomic Constants, Light and Time*, Invited Research Report, by Trevor Norman and Barry Setterfield, prepared for Lambert T. Dolphin, Senior Research Physicist, Stanford Research Institute International. There is debate about this, as about so many things; here we are dealing with conjecture and assumptions, but that give tantalizing new insights. One thing must be kept in mind, that the case for C Decay (decay of the speed of light) is by no means weak, and that the debate against it has shown more heat than light. There are also other possible explanations, as proposed by D. Russell Humphreys in his 1994 book, *Starlight and Time: Solving the Puzzle of Distant Starlight in a Young Universe*.

Interestingly enough, the images given by the Hubble of the most distant galaxies recently discovered give mature stars and galaxies, while if stellar evolution and the age of the universe are true, we should be getting images from the distant past, and should be seeing very young stars and galaxies. There ARE puzzling things up there for the Old Universe view, and that point to a young universe.

Consideration #6. The Scriptural teaching that Death entered the Kosmos by the sin of Man [Romans 5:12 - "Wherefore, as by one man sin entered into the world, and death by sin; and so death passed upon all men, for that all have sinned"] implies that the Biosphere and all its contents must have an age corresponding with the natural reading of Genesis One. This is watered down by Hugh Ross with the contention that physical mortality was consubstantial with the Creation, and that the death spoken of in Genesis 2:16-17 ["¹⁶ And the LORD God commanded the man, saying, Of every tree of the garden thou mayest freely eat: ¹⁷ But of the tree of the knowledge of good and evil, thou shalt not eat of it: for in the day that thou eatest thereof thou shalt surely die."] refers solely to spiritual death. Of course, this sounds quite plausible, except when one reads the Scripture without any preconceptions. I contend first and foremost that this is not *exegetis*, but *eisegetis*, that is, the way Hugh Ross teaches this passage is not what the passage says, but what he reads into it. It speaks about DEATH. And DEATH for a spiritual/physical being is death for all of its being. It is spiritual death and physical death, and so it has always been understood. BUT, this is also the understanding that the Holy Ghost gives in 1 Corinthians through the Apostle Paul, with these words:

- 20 ¶ But now is Christ risen from the dead, [and] become the firstfruits of them that slept.
- 21 For since by man [came] death, by man [came] also the resurrection of the dead.
- 22 For as in Adam all die, even so in Christ shall all be made alive.
- 23 But every man in his own order: Christ the firstfruits; afterward they that are Christ's at his coming.
- 24 Then [cometh] the end, when he shall have delivered up the kingdom to God, even the Father; when he shall have put down all rule and all authority and power.
- 25 For he must reign, till he hath put all enemies under his feet.
- 26 The last enemy [that] shall be destroyed [is] death.

«For since by man [came] death, by man [came] also the resurrection of the dead.» If the resurrection meant here is PHYSICAL, it is clear that the death meant, that came BY MAN, is also physical.

A careful consideration of the passage with all its context will make it clear that it refers to the physical aspect of death that is undone by Christ's resurrection. Those that are Christ's are NO MORE spiritually dead. But they die physically (that is, until the Lord's coming). "As in Adam all die [FOR SINCE BY MAN CAME DEATH], even so in Christ shall all be made alive". The consistent teaching of Scripture is that in the original Creation there was no Death nor preying. The food for all animated beings were plants, which are simply food factories, so that their consumption does not imply death. The arrival of death was NOT due to how God made the universe, but rather to the sin of the creature.

Let's quote again what Tertullian says in *De Anima*, 52, contradicting Greek naturalist philosophy:

We, who know the origin of man, know with certainty that death does not come from nature, but from sin.

When the Lord comes to reign, then there shall be a return to idyllic conditions, when

Isa 11:6 The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and a little child shall lead them.

Isa 65:25 The wolf and the lamb shall feed together, and the lion shall eat straw like the bullock: and dust [shall be] the serpent's meat. They shall not hurt nor destroy in all my holy mountain, saith the LORD.

These will indeed be "the times of restitution of all things which God hath spoken by the mouth of all his holy prophets since the world began" (Acts 3:21).