CREATION THEORIES

The Book of Genesis has received renewed interest in recent decades because of the growth of scientific investigations in the fields of anthropology and archaeology and the search for man's heritage. How old is the earth? When did man appear upon this earth and how did he come into existence? Scientists and Theologians have proposed several theories. Such theories are shown in the following Table.

PREVALENT CREATION THEORIES [1]

Theory	Description	Understanding of Time	Treatment of "Day"	Major Problems
Big Bang	Most accepted by science community	10 Billion years ago - Evolution started	24 hours	Prior existence of matter and energy
24-Hour Day	Bible - views Gen. 1 and 2 as sequential and literal	Most support "young earth"	24 hours	Reconciling with scientific "data"
Day - Age	Bible - views creation as taking place over six eras	Unlimited time available for each era	Day = Age	Scientific "data" Author's intention Day = Age?
Literary Approach	Bible - views 7-day sequence as a literary structure	Narrative ;has nothing to say about time	Oriented toward Sabbath theology	Exodus 20:11 -- time? basis of literary structure
Prior Creation	Suggests World prior to Genesis	Scientific ages related to prior creation	24 hours	No textual support ? continuity in scientific record--Sun/moon

Two-Phase	Bible - 2 distinct phases of creation	Gap between Gen 2:3 and 2:4	Any view possible	Adam and Eve would not be morally responsible

The Bible asserts that God spoke and the creation occurred. The energizing force for creation was God's spoken word. He created a physical world where nothing had existed. This is the supernatural event that is unacceptable to many in the scientific community. It also causes problems for some theologians. Walter Brueggmann writes:

> **The relation of verses 1 and 2 (Genesis 1:1-2) is not obvious. Verse 1 suggests God began with nothing. Verse 2 makes clear there was an existing chaos. It is likely that verse 2 is a more primitive, traditional notion, whereas 1 is more reflective about its theological claim. 3 By the time of the New Testament, it was affirmed that God created out of nothing . 8**

> Science indicates that the earth is billions of years old and man has been on the earth for millions of years, but many people believe that the book of Genesis indicates that the earth and man were created by God in the relatively short past. There are many treatments of the differences of opinion between the creationists and the evolutionists on the age and development of both the earth and man. Many biblical scholars accept the statement of Genesis as to the creation of the universe and man, but indicate that Genesis does not rule out the possibility of large periods of time in the creation process. Benjamin B. Warfield indicates that:

> **The Bible does not assign a brief span to human history: this is done only by a particular mode of interpreting the Biblical data, which is found on examination to rest on no solid basis. . . . It must be confessed, that the impression is readily taken from a prima facie view of the Biblical Record of the course of human history, that the human race is of comparatively recent origin. 4**

Gleason L. Archer evidently does not accept the literal interpretation of the Genesis account of creation and bases his interpretation on the evidence from the fossils and fissionable minerals in the geological strata that indicates the Earth is billions of years old. 5 He also states that the interpretation of the Hebrew word "yom" allows for periods of time between the days of creation, and that one cannot be certain that the creation was accomplished in six literal and consecutive solar days as Genesis indicates. Archer states:

> **To be sure, if we were to understand Genesis 1 in a completely literal fashion - which some suppose to be the only proper principle of interpretation if the Bible is truly inerrant and completely trustworthy - then there would be no possibility of reconciliation between modern scientific theory and the Genesis account.**

This viewpoint expresses the presuppositions of science on the formation of the earth and accomodates the Bible to science. Archer indicates

> **"that to take the Word absolutely literally would require that in Matthew 19:24 (and parallel passages) Christ actually meant to teach that a camel could go through the eye of a needle." But it is abundantly clear that Christ did not actually mean to teach that a camel could go through the eye of a needle, but was simply using the familiar rhetorical figure of hyperbole in order to emphasize how difficult it is spiritually for a rich man (because of his pride in his material wealth) to come to repentance and saving faith in God. 6**

Interpretation of Scripture is neither an art nor a science; it is both. Biblical interpretation is governed by general rules, principles, and methods of interpretation, but one cannot determine a fixed set of rules that will cover every instance or apply in all circumstances. This ignores context and eliminates the Holy Spirit from the learning and interpreting process. One should adopt an approach to understanding the meaning of words that considers precisely their referential, denotative, connotative, and contextual meanings. One of the major problems in biblical and in scientific interpretation is that interpretations are made without having all the data required or considering all the available data. Most difficulties arise because there is insufficient data to make a firm decision.

Thorough and correct scientific inquiry depends upon the premise that there is order in the universe, that all the data are available, and that the presuppositions are correct or at least stated for evaluation. The interrelationship between the Bible, specifically Genesis, and the modern scientific community continues to expand and contrast man's views of the universe and its origin. One such theory, the Big Bang Theory, **2** proposes that the universe was originally an infinitely compact and singular state enclosing a space even smaller than an atomic particle. The definition usually given is as follows:

> The universe was born in an enormous explosion, called the Big Bang, about 15 billion years ago, and its fallout created not only mass and energy but also space and time. From a tiny, fantastically hot "seed," the universe swelled and cooled. For hundreds of thousands of years, matter consisted of a seething mass of superheated subatomic particles, buffeted by high-energy radiation. Today's universe is cold and quiet by comparison, but at its edge astronomers can still detect the faint glow of its fiery birthand with it, the beginning of time.

The beginning of the universe occurred when the ball grew, not in a violent explosion as the name suggests, but through a rapid expansion. This expansion resulted in the breaking away of the galaxies and planets, and the universe is still expanding. The cosmic microwave background radiation is considered as compelling evidence for the Big Bang Theory. **This is all based on the presupposition that the small compact particle existed. But where, how, and when did the particle originate?** It is contrary to the First Law of Thermodynamics and all scientific theories that something could be created out of nothing unless a supernatural event occurred to create the particle. Scientists cannot explain with any certainty why the Big Bang happened, so it is pointless to speculate about what came **"before"** it. Timealong with space, matter and energy was created in the Big Bang, so there was no "before." Similarly, scientists cannot tell what happened during the very first moments. At that point the temperatures and pressures were so high that the laws of physics as we know them did not apply. But we do know for certain that as things expand, they also cool. So as the universe expanded outward from the initial explosion, the temperature and pressure began to drop.

We can start to piece together the story of the universe from a mere 10~3 seconds after the beginning. Around this time, the universe divided into energy and matter. For a while, energy turned into matter, and matter back into energy in a seething turmoil of collision and annihilation. But as the universe expanded and the temperature fell, the type of matter in it changed. Scientists believe that at first there were many types of matter particles, but that these were short-lived and soon disappeared. It also seems that in the immediate aftermath of the Big Bang, there was only one kind of force acting between particles.
Within just a millionth of a second, the single force "broke up" into the four fundamental forces we know today: *Gravitation,* which holds galaxies, stars and planets together; *electromagnetism,* which binds atoms together; the *strong nuclearforce,* which holds the nuclei of atoms together; and the *weak nuclearforce,* which is involved in the process of radioactivity.

The particles we know as *quarks*thought to be the basic building blocks of all the matter in the universe todayoriginally existed singly. Then, after a millionth of a second, they joined together to make *protons, neutrons* and the other particles found in atoms.

After about 100 seconds, some protons and neutrons were moving slowly enough to join together and build up the first *atomic nuclei.* But it was not for about another 300,000 years, when the universe had cooled to white heat, that *electrons* fell into place, orbiting the nuclei and forming the first atoms. It was still so hot that only the lightest atomshydrogen, helium and lithiumcould form. This hot gas of light elements expanded, thinned and cooled, and as it did so, the stars, galaxies and planets condensed out of it. The universe is still cooling. From an unimaginably high level to start with, the temperature in space is now down to -454F. Outlook: It's getting colder! This is shown in the following Table. **9**

Big Bang Timetable **(Based on Presuppositions)**

Time	Temp 0 F	Diameter of Universe	Events
0	-	0	Time, space, matter and energy are born.
10- 43 sec	10 +32	10 -33 IN	Gravity becomes a separate force.
10 -35 sec	10+ 28	10 -28 IN	Universe expands faster than before and stops cooling
10 -33 sec	10+28	1 IN	Inflation stops: Universe has redoubled its size hundreds of times
10 -12 sec	10 +16	1.02 IN	Electromagnetism splits from the weak force.
10 -6 sec	10 +13	2,000 ft	Quarks combine to make protons, neutrons and other particles.
1 sec	10 billion	400,000 miles	Neutrinos stop interacting with other particles almost completely.
100 sec	1 billion	40 million miles	Protons and neutrons combine to build light nuclei.
300,000 yrs	6,000	600,000 light-years	First atoms are formed.
1 million years	1,000	2 million light-years	Gas clouds form; first stars are born.
15 million years	-454	30 billion light-years	present day

The values included in this table are pure speculation but are accepted as literal fact by many scientists.

Scientists are trying to understand more about the Big Bang by attempting to reproduce it on Earth. In giant accelerators, particles are smashed into each other at the kinds of energies found in the universe when it was less than a billionth of a second old. But it would take a particle accelerator bigger than the entire Earth to recreate the conditions of the Big Bang itself. So it will be up to astronomers to answer questions about the earliest moments of the universe.
Scientists studying the Big Bang would love to answer one question: **Was it so powerful that the universe will keep expanding forever?** Or is the gravitational pull of all the matter in the universe strong enough to slow down the expansion? If it is, then everything will start falling back in on itself again and the universe will end in a **"Big Crunch."** But to know how strong the gravitational pull is, we need to know how much matter there is in the universe. Scientists suspect that there is at least 10 times as much matter as we can see. They believe that the universe is full of "dark matter," undiscovered particles such as *WIMPs (Weakly Interacting Massive Particles)* that are almost impossible to detect. The search is on to find such particles, and evidence for their existence may lie in cosmic rays.

If "dark matter" is found, it will mean that the entire universe we see today is only a tiny fraction of the whole universejust the minuscule tip of a massive iceberg. Astronomers also need to know the exact size of the universe, but the distance to the farthest objects that we can detect is at~pres-ent uncertain. Information from the Hubble Space Telescope, from its planned successor, the Next Generation Space Telescope, and from new types of ground-based telescopes will improve our knowledge of the scale of the universe. Scientists are also trying to detect gravitational waves ripples in space and time that they believe spread out from violent events such as the birth of a black hole. If gravitational waves from the very distant universe could be observed, it would then be possible to work out the size of the universe precisely.

This widely held theory of the universe is necessary for the theory of evolution Its essential feature is the emergence of the universe from a state of extremely high temperature and density--the so-called big bang that occurred at least 10,000,000,000 years ago. Although this type of universe was proposed by Alexander Friedmann and Abbé Georges Lemaître in the 1920s, the modern version was developed by George Gamow and colleagues in the 1940s.
The big-bang model is based on two assumptions. The first is that Einstein's general theory of relativity correctly describes the gravitational interaction of all matter. The second assumption, called the **cosmological principle**, states that an observer's view of the universe depends neither on the direction in which he looks nor on his location. This principle applies only to the large-scale properties of the universe, but it does imply that the universe has no edge, so that the big-bang origin occurred not at a particular point in space but rather throughout space at the same time. These two assumptions make it possible to calculate the history of the cosmos after a certain epoch called the Plank's Time. Scientists have yet to determine what prevailed before Planck time.
According to the big-bang model, the universe expanded rapidly from a highly compressed primordial state, which resulted in a significant decrease in density and temperature. Soon afterwards, the dominance of matter over antimatter (as observed today) may have been established by processes that also predict proton decay. During this stage many types of elementary particles may have been present. After a few seconds, the universe cooled enough to allow the formation of certain nuclei. The theory predicts that definite amounts of hydrogen, helium, and lithium were produced. Their abundances agree with what is observed today. About

1,000,000 years later the universe was sufficiently cool for atoms to form. The radiation that also filled the universe was then free to travel through space. This remnant of the early universe is the microwave background radiation (three degree background radiation) discovered in 1965 by Arno A. Penzias and Robert W. Wilson.
In addition to accounting for the presence of ordinary matter and radiation, the model predicts that the present universe should also be filled with neutrinos, fundamental particles with no mass or electric charge. The possibility exists that other relics from the early universe may eventually be discovered.
For this purpose, fortunately, the cosmological evolution of model universes is especially simple and amenable to computation at redshifts much larger than 10,000 (or temperatures substantially above 30,000 K) because the physical properties of the dominant component, photons, then are completely known. In a radiation-dominated early universe, for example, the radiation temperature *T* is very precisely known as a function of the age of the universe, the time *t* after the big bang.

24 Hour Day from the Bible

This view takes the Genesis account literally. It accepts the 6 days of creation as 6 24-hour periods of time. The adherants to this viewpoint also support the young earth concept of the earth. (Creation and Evolution) If one accepts the Bible as inerrant then this is the only view possible. (Bible Validity and Inerrancy of the Scripture)
Some no not accept the inerrancy of the Bible, they choose to accept the Bible as truth in the areas of their own interest. If the Bible is in error about this topic, then is it inerrant about your salvation? Who determines what verses are correct in the Bible and which are in error? One must be consistent! I believe the Bible is the inerrant, plenary, inspired Word of God and therefore I accept the Genesis version of Creation and this is the one presented in these articles.

Day - Age Theory of Creation

The Day-Age viewpoint of the Genesis treatment assumes that the "six days" are accually long undefined periods of time or ages. This enables this viewpoint to incumpase any time frame needed for the development of the earth and man. I can be made to fit the geological ages and the evolutionary theory. The problem with this presupposition is that it has no basis in Scripture. The Scripture defines the day as "morning and evening" as it does elsewhere in the Bible and the Hebrew word for day is used, not the word for era, age or undefined time period. But this allows one to integrate both the biblical and scientific viewpoints of creation based on the stated presuppositions.

Literary Approach to Creation

This approach accepts the 7-day sequence of biblical creation as a literary structure and the narrative specifies nothing about the time frame in which it occurred. It has its basis in the Sbbath theology of Exodus 20:11. This enables one to side step the discussion of the time frame of creation.

Prior Creation

This viewpoint states that God did create the universe, but long before He created Adam and Eve. The viewpoint accepts the Genesis version of creation but places it at the end of a period of time when the Dinosaurs and cave men were on earth. This view point would account for the dinosaurs and possibly the wives of the sons of Adam. (Cain's wife?)

Two Phase or "Gap" Theory of Creation

This theory states that there was a large time gap between Genesis 2:3 and 2:4. This is not to be confused with the "Prior Creation Theory" There was a time gap but this theory doesn't suggest that there was a prior existence of creatures of any form. There is no biblical basis for this, but because the "earth became void" the proponents of this theory consider this to mean chaotic changes occurred during the time between these two verses.
The **Big Bang Theory** completely ignores the idea that God created the universe and denies His existence, accepting the ideas of man and placing themselves above God. The **24-Hour Day Theory** accepts totally that God created the universe and accepts the Bible as the inerrant Word of God. The **Literary Approach** to creation as a literary expression and does not place any literal significance to the event. The **Day-Age**, **Prior Creation** and the **Two-Phase** theories are very similar. The main difference in the theories is in the treatment of "Day." The **Day-Age** suggests that the six days of creation are really six ages or long time frames, the **Prior Creation** accepts the 24-hour day but indicates that there was a long unspecified period of time from the initial creation to a second creation in six days. The **Two-Phase** theory also states that there was two distinct phases for creation but specifies that a large "gap" in time occurred between Genesis 2:3 and 2:4. This places no distiction of time on either phase.
One must make up his own mind as to the correctness of the above. Since the Bible has never been shown to be wrong and the biblical prophecies have been correct concerning the Formation of World Empires prophecied by Daniel and Israel's reformation and the Land of Promise ,I would have to accept the Bible version of creation.

1 John H Walton, Chronological Charts of the Old Testament, Zondervan Publishing House, 1952. Return

2 Science Desk Reference (NewYork: Macmillan and Company, 1995), 314-315. **Return**

3 Walter Brueggemann, Genesis, Interpretation (Atlanta: John Knox Press, 1946), 29. **Return**

4 Benjamin B. Warfield, Studies in Theology (Carlisle, PA: The Banner of Truth Trust, 1932), 236 . **Return**

5 Gleason L. Archer, Encyclopedia of Bible Difficulties (Grand Rapids: Zondervan Publishing House, 1982), 58-62. **Return**

6 Archer, Encyclopedia of Bible Difficulties, 58-62. **Return**

7 Hubble's finding provided the empirical justification for the so-called cosmological principle, a term coined by the English mathematician and astrophysicist Edward A. Milne to describe the assumption that at any instant in time the universe is, in the large, homogeneous and isotropic-- *i.e.*, statistically the same in every place and in every direction. This represented the ultimate triumph for the Copernican revolution. Return

8 Romans 4:17(As it is written, I have made thee a father of many nations,) before him whom he believed, even God, who quickeneth the dead, and calleth those things which be not as though they were. [KJV]

Hebrews 11:3Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear. [KJV] Return

9 Secrets of the Universe, International Publishers, IMP Inc. 1998. Return