



In the beginning,
God created the
heavens and the earth.

Genesis 1:1

The Creation Days in Genesis

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1 Introduction

The opening chapters of Genesis are a very beautiful description of the beginning of time. Who can forget the time that the crew of Apollo 8 read the first 10 verses of Genesis 1 as they orbited the moon. The idea that God is the creator of all that exists is a fundamental Christian doctrine. However, the beginning chapters of Genesis have been a source of controversy both within and outside the Christian church. There have probably been more books and articles written about the creation account in Genesis than any other portion of scripture. The creation account is obviously in conflict with the view held by many in our society who believe that there is no creator and that nature is all there is. However, the creation account has also generated considerable controversy within the church. The controversy here centers primarily on the timing of the creation events and whether the account should be interpreted literally or as a literary form. In this paper I will try to summarize the major interpretations of the creation days in Genesis 1 and to point out areas where they differ. I am not writing as an advocate of any of these positions. There are intelligent and committed Christians advocating each of these positions and each one is deserving of our consideration.

I have been professionally involved in science as a mathematician for more than 40 years. I am also a Christian who believes that the Bible is the inspired word of God. It is my belief that it is profitable to debate the theological and scientific issues involved in the Genesis creation account as long as we do so with respect for other Christians holding differing views. This has not always been the case. My hope is that we may come to see that other Christians can have a different viewpoint on the time-scale and method of creation and still hold to the infallibility and inerrancy of the Bible as God's word. The following quote by John Stott presents this idea very well:

There are two particular principles which Paul develops in Romans 14, which, especially in combination, are applicable to all churches in all places at all times. The first is the principle of faith. Everything must be done 'from faith', he writes (14:23). Again, 'each one should be fully convinced in his own mind' (14:5). We need therefore to educate our consciences by the Word of God, so that we become strong in faith, growing in settled convictions and so in Christian liberty. Secondly, there is the principle of love. Everything must be done according to love (14:15). We need therefore to remember who our fellow Christians are, especially that they are our sisters and brothers for whom Christ died, so that we honour, not despise, them; serve, not harm, them; and especially respect their consciences.

One area in which this distinction between faith and love should operate is in the difference between essentials and non-essentials in Christian doctrine and practice. Although it is not always easy to distinguish between them, a safe guide is that truths on which Scripture speaks with a clear voice are essentials, whereas whenever equally biblical Christians, equally anxious to understand and obey Scripture, reach different conclusions, these must be regarded as non-essentials. . . . In fundamentals, then, faith is primary, and we may not appeal to love as an excuse to deny essential faith. In non-fundamentals, however, love is primary, and we may not appeal to zeal for the faith as an excuse for failures in love. Faith instructs our own conscience; love respects

the conscience of others. Faith gives liberty; love limits its exercise. No-one has put it better than Rupert Meldenius, a name some believe was a nom de plume used by Richard Baxter:

- *In essentials unity;*
- *In non-essentials liberty;*
- *In all things charity.*

To set the stage for what follows I would like to make a couple of general observations.

1. I think we can all agree that the creation account given in Genesis is not an eye-witness account. There was no one present except God when these events took place. This leaves open the possibility (not necessity) of a non-literal interpretation of the creation account.
2. The Genesis creation account was not written exclusively for our generation. It was meant to be read and enjoyed by people of every age. Therefore the language employed is not scientific or technical in nature. We have to be careful not to read more into these passages than is really there.

I begin this paper with a discussion of how the Genesis creation account differs markedly from all other ancient creation accounts. I then present some historical background information on the controversy surrounding the creation days in Genesis. Next I discuss some of the language and scientific difficulties involved in interpreting the Genesis creation account. Following this I outline the major viewpoints on the creation days along with some of the major arguments for and against each one. I conclude with a statement of some truths about creation that hopefully all sides of the controversy can agree on. There are a number of good references containing much more extensive presentations than are given here. The ones I have found to be most useful are listed in the reference section.

2 Uniqueness of the Genesis Creation Account

The Hebrews were certainly aware of the creation accounts from Mesopotamia, Egypt, and other nearby regions. Abram was born in Mesopotamia, Isaac took a wife from there, and Jacob lived there for 20 years. Moses was raised as an Egyptian prince. The Hebrews spent four hundred years in Egypt, much of the time as Egyptian slaves. The best known of the ancient creation accounts is probably the *Enuma elish* from Mesopotamia. It describes how Marduk became the supreme god by killing off the goddess Tiamat in a great battle. The Egyptians had several competing creation accounts, each one tied closely to a major Egyptian city. There are certainly some similarities between the first two chapters of Genesis and the other ancient creation accounts. For example, the order of the creation events is approximately the same. However, the differences far overshadow the similarities. Here are a few of the things that make the Genesis account unique.

Creation week The number seven was special in many ancient cultures. However, Genesis is the only creation account based on a week of seven days. The number seven appears in other ways in Genesis. For example, the first verse consists of exactly seven Hebrew words and the second verse has fourteen words (two times seven). It is interesting that Genesis simply refers to the creation days by number and does not give them names of gods or of heavenly bodies as was done in other cultures.

One God All of the other creation accounts are not primarily about creation, but are stories about how the various gods, each ruling over some aspect of nature, came to be. Thus, the gods were part of the creation. There was a constant struggle among the gods for supremacy. In the Genesis account God has no female counterpart and no rivals. In other ancient creation stories creation was often the result of sexual union. In Genesis God merely spoke and it was so. Genesis proclaims that there is one God who has always existed and who created everything in the heavens and on the earth. He is responsible for all of creation, but is not part of it.

Beginning The other ancient creation accounts assume that the universe has always existed. Only Genesis ascribes a beginning to the heavens and the earth.

Importance of man In the other creation accounts the creation of man was not given any great significance. Man's main purpose was to free the gods from menial labor. In Genesis man is seen as the pinnacle of God's creation. Man was created in the image of God and was given dominion over all the creatures that fill the land and the sea and the air. In ancient cultures kings were often seen as being the image of some god, but in Genesis every man is seen as special and of infinite worth, being a reflection of the one true God.

Sabbath The Sabbath, a day of rest patterned after God's day of rest, was unique in the ancient world. It was not connected to the movement of the stars, but was set apart as holy by God. It was one of the things that set the Jewish people apart.

Women There is not a single other ancient source that contains a story of woman's creation. In Genesis more space is given to woman's creation than to man's. Adam was overjoyed to finally have a suitable help-mate.

We are so familiar with the Genesis creation account that we often fail to see how revolutionary it was at the time.

3 Historical Background of Controversy

Much of the controversy concerning the creation account in Genesis centers on the meaning of the word “day”. Some consider it to be a normal 24-hour day, others say it refers to a period of time of unspecified length, and still others treat it as part of a literary form. This controversy at times has become very bitter. There didn’t appear to be this divisiveness in the early history of the church. For the first 1600 years of the Christian church there seemed to be a tolerant attitude toward differing views on the meaning of the creation days. Probably most adhered to the 24-hour day viewpoint, but there were a number of exceptions. Clement of Alexandria (150–215 A.D.) was an early Christian convert and theologian. He believed that the creation was instantaneous and that the days of Genesis 1 were used to show the priority of created things but not the timing. Here are some quotes by two other early church theologians

As for these days, it is difficult, perhaps impossible to think — let alone explain in words — what they mean. Augustine (354–430 A.D.)

the ‘days’ of Moses’ account ... are not to be equated with the days in which we live. Anselm (1033–1109 A.D.)

Augustine seems to have believed that the creation of matter was instantaneous and that the days were epochs of formation.

The major church creeds took no definite position on the length of the creation days (4). This would seem to indicate that the timing of the creation events was not considered to be of primary importance.

The Apostle’s Creed simply states

I believe in God, the Father almighty, creator of heaven and earth.

The Nicene Creed (381 A.D.) limits its statement on creation to this

We believe in one God, the Father almighty, maker of heaven and earth, of all things visible and invisible.

The Heidelberg Catechism (1563) states the following

God created them [man and woman] good and in his own image, that is, in true righteousness and holiness, so that they might truly know God their creator, love him with all their heart, and live with him in eternal happiness for his praise and glory.

The eternal Father of our Lord Jesus Christ, who out of nothing created heaven and earth and everything in them, who still upholds and rules them by his eternal counsel and providence . . .

All creatures are so completely in his [God's] hand that without his will they can neither move nor be moved.

The Belgic Confession (1566) has this to say about creation

We believe that the Father created heaven and earth and all other creatures from nothing, when it seemed good to him, by his Word — that is to say his Son. He has given all creatures their being, form, and appearance, and their various functions for serving their Creator. . . . He also created the angels good, that they might be his messengers and serve his elect.

We know him [God] by two means: First, by the creation, preservation, and government of the universe, since the universe is before our eyes like a beautiful book in which all creatures, great and small, are as letters to make us ponder the invisible things of God: his eternal power and his divinity, as the apostle Paul says in Romans 1:20. All these things are enough to convict men and to leave them without excuse. Second, he makes himself known to us more openly by his holy and divine Word.

The Westminster Confession (1646) makes the following statement

It pleased God the Father, Son, and Holy Ghost, for the manifestation of the glory of his eternal power, wisdom, and goodness, in the beginning to create, or make of nothing, the world, and all things therein whether visible or invisible, in the space of six days, and all very good.

Only the Westminster confession even mentions a time period for creation, and it merely repeats, without explanation, what is recorded in Genesis. It is known that many of the Westminster divines supported the calendar-day interpretation, but there is considerable disagreement on whether they were applying that restriction here. Calvin used the same term “in the space of six days” to counter Augustine’s instantaneous creation idea, but did not elaborate on the meaning of “days”.

The seeds of controversy were planted in the mid-17th century by two British scholars, John Lightfoot and James Ussher. In 1642, just 31 years after the completion of the King James translation, Cambridge University Vice-Chancellor John Lightfoot published his voluminous calculation of the exact date for the creation of the universe: September 17, 3928 B.C. Eight years later, James Ussher, Anglican archbishop of Ireland, corrected Lightfoot’s date. His copious commentary and calculations changed it to October 3, 4004 B.C. Not to be outdone, Lightfoot adjusted Ussher’s

date to the week of October 18–24, 4004 B.C. with the creation of Adam occurring on October 23 at 9:00 A.M., 45th meridian time. From the 18th century onward, the King James Version incorporated Ussher's chronology as margin notes or even as headings of its various editions.

In the 1800s, scientists Charles Lyell, John Phillips, Lord Kelvin, and John Joly each independently (using sedimentation rates, earth's cooling rate, and the rate of salt accumulation in the oceans) came to believe that the earth's age must be at least in the tens of millions of years. The rise of Darwinism in the late 1800s caused many to question the 24-hour day interpretation since Darwinian evolution involves a gradual transformation of lower forms of life into higher forms over a very long time period. Most scientists today believe that the earth is very old. The current estimate for the age of the earth is about 4.5 billion years. Although there are still some questions relating to the methods for estimating the age of the earth, these estimates are generally accepted.

One attempt to reconcile these scientific estimates of the earth's age with Ussher's chronology was made by Philip Gosse (1810–1888), a British preacher and self-trained biologist. He proposed that God created the world with the appearance of age, i.e., trees were created with growth rings in place, coral reefs were created fully-developed, and rocks were created with fossils in them. Although popular for a while, this view has few adherents today. Many believe this approach implies a deliberate deception by God.

An attempt to accommodate a long time period for creation was the so-called 'gap theory' (6). This interpretation was based on an alternate rendition of the phrase "the earth was without form" in verse 2 of Genesis. Another possible translation is "the earth became formless". The gap theorists claim that there was an earlier civilization, ruled over by Satan, which was destroyed by God. This destruction caused the earth to become empty. The remaining verses of Genesis describe a re-creation by God. There is an unspecified time gap between the two creations. This interpretation was popular in the 1800s and early 1900s. It was contained in the notes of the popular Scofield Reference Bible. In this form it has very few adherents at present. However, there are some today who do believe that there may be time gaps both before and between the creation days.

The growing acceptance of Darwinism was seen by many in the church as a major threat to the authority of the scriptures. Between 1909 and 1917, American laymen Milton and Lyman Stewart published and distributed a series of small booklets entitled *The Fundamentals: A Testimony to the Truth*. These essays were written by such prominent Evangelicals as C.I. Scofield, Benjamin Warfield, James Orr, and R.A. Torrey. They asserted that there were five fundamentals of the faith:

1. The Deity of Jesus Christ
2. The Virgin Birth
3. The Blood Atonement
4. The Bodily Resurrection
5. The Inerrancy of the Scriptures.

I think that the word "fundamentalism" today has a somewhat negative connotation. However, I doubt that many Christians would object to the five fundamentals stated above. The essays

that addressed Genesis 1 asserted the importance of recognizing these events as actual historical occurrences, fundamental to everything in scripture, but left open the question of the creation days' length. Here is a statement by R.A. Torrey, one of the editors of *The Fundamentals*

Anyone who is familiar with the Bible and the way the Bible uses words, knows that the use of the word 'day' is not limited to twenty-four hours. It is frequently used to denote a period of entirely undefined length There is no necessity whatsoever for interpreting the days of Genesis 1 as solar days of twenty-four hours length.

However, at a 1919 conference in Philadelphia, fundamentalism became an organized movement with the founding of the World Christian Fundamentals Association (WCFA). This group considered the question of what qualifies a person to be a true Christian. Since they perceived Darwinism to be the great evil of the day, they adopted Ussher's chronology as a necessary belief. They believed that this was the only way to counter the rise of godless science.

One of the most outspoken critics of Darwinism in the early 1900s was a Seventh-Day-Adventist layman and amateur geologist name George McCready Price. In 1923 he published a book entitled *The New Geology*. In this book he claimed that the fossil record and all the earth's geologic features could be explained as the result of the Genesis flood. Price was an excellent speaker and became a spokesman for the fundamentalist movement.

The issue received great notoriety in the Scopes trial of 1925. This trial took place in Dayton Tennessee and was perceived as a showdown between fundamentalist Christianity and science. In a series of scathing newspaper articles H. L. Mencken implied that, under defense attorney Clarence Darrow's cross-examination, William Jennings Bryan was forced to admit that the six consecutive 24-hour periods of Biblical creation must be incorrect. Actually, Bryan went into the trial believing that the Bible allowed for long creation days. The trial actually was more showmanship than a true confrontation between the two positions. The scientists assembled by the defense team were not allowed to testify in the trial. In a strange move Bryan agreed to take the stand and be questioned by Darrow with the understanding that he would be able to question Darrow later. Here is a portion of that interchange (13).

DARROW: Have you any idea how old the earth is?

BRYAN: No.

DARROW: The book you have introduced in evidence fails you, doesn't it? [referring to the Bible]

BRYAN: I don't think it does, Mr. Darrow.

DARROW: Let's see whether it does. Is this the one?

BRYAN: That is the one, I think.

DARROW: It says B.C. 4004.

BRYAN: That is Bishop Ussher's calculation.

DARROW: That is printed in the Bible you introduced?

BRYAN: Yes, sir.

DARROW: And numerous other Bibles?

BRYAN: Yes, sir.

DARROW: Printed in the Bible in general use in Tennessee?

BRYAN: I couldn't say.

DARROW: And Scofield's Bible?

BRYAN: I couldn't say about that.

DARROW: You have seen it somewhere else?

BRYAN: I think that is the chronology actually used.

DARROW: Does the Bible you have introduced for the jury's consideration say that?

BRYAN: Well, you'll have to ask those who introduced that.

DARROW: You haven't practiced law for a long time, so I will ask you if that is the King James version that was introduced. That is your marking, and I assume it is.

BRYAN: I think that is the same one.

DARROW: There is no doubt about it, is there, gentlemen?

STEWART: That is the same one.

DARROW: Would you say the earth was only 4,000 years old?

BRYAN: Oh no, I think it is much older than that.

DARROW: How much?

BRYAN: I couldn't say.

DARROW: Do you say whether the Bible itself says it is older than that?

BRYAN: I don't think the Bible says itself whether it is older or not.

DARROW: Do you think the earth was made in six days?

BRYAN: Not six days of twenty-four hours.

DARROW: Doesn't it say so?

BRYAN: No, sir.

...

DARROW: All right. Does the statement “The morning and the evening were the first day” and “The morning and the evening were the second day” mean anything to you?

BRYAN: I do not think it necessarily means a twenty-four hour day.

DARROW: You do not?

BRYAN: No.

DARROW: What do you consider it to be?

BRYAN: I have not attempted to explain it. If you will take the second chapter — let me have the book. The fourth verse of the second chapter says, “Those are the generation of the heavens and of the earth, when they were erected in the day the Lord God made the earth and the heavens.” The word “day” there in the very next chapter is used to describe a period. I do not see that there is necessity for considering the words, “the evening and the morning” as meaning necessarily a twenty-four hour day in the day when the Lord made the heavens and the earth.

...

After the questioning the defense pled guilty, ending the trial. Darrow was primarily interested in appealing the case to a higher court. Thus, Bryan didn't get to question Darrow or to present his final summation. This was the first major trial to be broadcast on the radio, however most people's views were shaped by the biased newspaper accounts of the trial. In the period following the trial there was no general agreement about which side had prevailed. It was another 42 years before the Tennessee law in question was repealed. Today, most people's conception of the Scopes trial is based on the play and movie “Inherit the Wind.” This rendition of the scopes trial contains many historical inaccuracies. For a good historical account I recommend the Pulitzer Prize winning book **Summer for the Gods** by Edward Larson (15). I have written a summary of the Scopes trial that includes events leading up to the trial, a day-by-day summary of the trial, the trial's aftermath, and a transcript of Darrow's examination of Bryan (23).

Although the calendar-day interpretation of the Genesis creation days remained the dominant position within the church, there were a number of prominent theologians who believed that Genesis allowed for the possibility of long creation days. These included Charles Hodge (1797–1878), A.A. Hodge (1823–1886), R.A. Torrey (1856–1928), Benjamin Warfield (1871–1921), and J. Gresham Machen (1881–1937).

Further evidence for a very old universe came from the so-called “Big-Bang” theory. George LeMaitre (1894–1966), a Catholic Priest in Belgium, deduced from Einstein's equations of General Relativity in 1927 that the universe should be expanding uniformly in all directions. This was confirmed experimentally in 1929 by Edwin Hubble using the red-shift of the light spectrums for distant galaxies. The results of LeMaitre and Hubble were not accepted immediately by many scientists. This is because their results, if extrapolated backwards, predicted that the universe must have had a beginning. LeMaitre also predicted that there should be a uniform residual background radiation still remaining from this expansion. This background radiation was measured by Arno

Penzias and Robert Wilson of Bell Labs in 1965 (They received the Nobel Prize for this discovery in 1978). Most scientists now accept the fact that the universe is expanding and that it had a beginning. Working backwards, Hubble's laws of expansion predict that the universe is about 13.7 billion years old.

In 1961 Henry Morris, a civil engineering professor, and John Whitcomb, a theology professor, published a book entitled *The Genesis Flood* (5). This book, like the earlier book of Price, argued that the creation period consisted of six 24-hour days occurring a few thousand years ago. It was also argued that the geological formations we see today are largely the result of the flood described in Genesis. This viewpoint is sometimes called the young-earth view. Unlike Price, these authors had professional degrees. In 1972 the Institute for Creation Research (ICR) was founded in San Diego by several scientists for the purpose of presenting this young-earth view of creation to the public. Through their efforts to legalize the teaching of creation science in the schools, the name "creationism" has come to be associated exclusively with this young-earth view.

In recent years Hugh Ross, the former Cal Tech astrophysicist, and others have lectured and written a number of books advocating the position that the sequence of events described in Genesis is correct, but that the creation days represent long periods of time. This viewpoint is sometimes called "Progressive Creationism". Progressive creationists generally believe that the creation process is completely under God's control and that God intervenes at specific times with completely new creations. They typically oppose evolution except in the limited sense of small variations within a species. Most also believe in a fairly recent creation date for man (less than a hundred thousand years). They claim that the Genesis account agrees well with current findings in science.

Another form of old-earth creationism is "Theistic Evolution". Advocates of this position affirm that God is the creator, but that he used evolution to produce the variety of life forms we see today. Some Theistic Evolutionists allow for the possibility that God may have intervened at particular times in the process while others believe that God endowed the original creation with everything that was needed. One of the primary advocates of Theistic Evolution was the French philosopher and Roman Catholic Priest Pierre Teilhard de Chardin (1881–1955). Recently this viewpoint has been popularized by Francis Collins, the director of the human genome project (22). Proponents of this view usually don't take a definite position on the meaning of "day", but they do interpret Genesis 1–2 in a non-literal sense. There is more information related to this viewpoint on the web site www.biologos.org.

An interpretation of the Genesis creation account that is of fairly recent origin is the "Framework" or "Literary Framework" viewpoint. Although there were some hints of this viewpoint in the writings of Augustine, it was popularized by the writings of Professors Meridith Klein (1922–2007) and the French theologian Henri Blocher. They considered the days to be normal days, but that they should be interpreted metaphorically as part of a literary form. They contend that the creation account is historical, but that the events are ordered the way they are for literary reasons and may not be chronological and could overlap.

Some young-earth advocates have accused these old-earth scientists of being heretics and not Bible believing Christians. I have not found this to be the case. I would hope that in the future this debate can be carried on in a more respectful manner. It is important to hold firmly the fundamentals of

the faith, but on non-fundamental matters love should be the guiding principle.

In 1977 a group of Biblical scholars formed the International Council on Biblical Inerrancy (ICBI). Initial efforts were focused on defining Biblical Inerrancy, but the council later began looking at specific issues. In 1982 an ICBI summit looked carefully at the role science should play in the interpretation of scripture. They heard presentations by young earth and old earth proponents as well as Biblical Hebrew scholars. The council did not take any position on the age of the universe/earth. Here is the council's statement on the relationship of science and scripture:

It is sometimes argued that our exegesis should not be influenced by scientific observations. We believe this view is mistaken. While the Bible clearly gives more specific information about our relationship to God than one could possibly deduce from natural revelation, it does not necessarily follow that our understanding of the physical world, its origin, etc., will be more clearly deduced from God's revelation in His word than His revelation in His world. Since both are revelations from God, and therefore, give a unified story, it seems quite permissible to consider all of the evidence (scientific as well as biblical) to be significant to the degree that each revelation can be clearly interpreted.

The position statement was signed by everyone in attendance except the young earth advocate Henry Morris.

Attempts in 1990 to force a young-earth view of creation into doctrinal statements and to make adherence to a young-earth interpretation a condition for church membership led both the Presbyterian Church in America (PCA) and Westminster Theological Seminary to convene panels of scholars to study the question. Both panels concluded that the Genesis creation days could be faithfully interpreted as 24-hour days, long time periods, or as a literary device. Their reports are contained on the web site <http://www.reasons.org/>.

4 Language and Cultural Background

Genesis was written in a language, ancient Hebrew, that was very different from our own. In addition, it was initially written to a people whose way of thinking was significantly different from ours. As background for our study of the opening chapters of Genesis we will briefly look at some important characteristics of the Hebrew language and the Hebrew way of thinking. We will then examine the “days” of Genesis 1 that have been a focal point of much of the controversy. After looking at some additional key words in the creation account, we will conclude this section by examining the literary structure of Genesis 1.

4.1 The Hebrew Language

Some of the difficulties involved in interpreting the creation account relate to the Hebrew language in which it was written (8). First of all, Biblical Hebrew contained very few words relative to modern languages. The ancient Hebrew vocabulary was about 1% the size of modern English. It follows that most Hebrew words had several meanings. Also, it was not possible in Biblical Hebrew to express many of the nuances we find in English.

The small size of the ancient Hebrew vocabulary also means that the English words used to translate the Hebrew often have additional connotations that were not present in the original. For example, when we think of the words “earth” and “heavens” we think of a roughly spherical planet orbiting the sun in a vast universe containing many other planets and suns. However, to the original hearers, the Hebrew word for “earth” would likely have referred to the relatively flat ground surrounding them, and the word for “heavens” would likely have meant the “dome-shaped” sky they saw above. Therefore, you can see that the meaning we attach to words is greatly influenced by our culture.

When we desire accuracy in communication, we usually rely on the written word rather than the spoken word. This was not true in ancient cultures. The primary way that the scriptures were transmitted was orally. Even the written Old Testament scriptures were usually read aloud to the Israelites. The words in most languages are made up of consonants and vowels. In speech, consonants involve motion of the lips or tongue whereas vowels involve air flow deeper in the throat. The words in written Biblical Hebrew consisted entirely of consonants. Of course, vowel sounds were used in oral communication. The root words in Biblical Hebrew usually consisted of two or three consonants. To these were added prefixes and suffixes signifying gender, person, number, etc. Other letters were sometimes added to the root words to form additional (often related) words. Vowel marks were not introduced into the Hebrew language until about 150 A.D. Therefore, many words in written Hebrew corresponded to several spoken words. For example, the Hebrew word baqar consisted of the three consonants Beyt, Quph, and Resh. It could have the following meanings depending on how it was pronounced

- baw-kar is translated as “seek” or “inquire”
- baw-kawr’ is translated as “ox”

- bo'-ker is translated as "morning"

In Biblical Hebrew, the meaning of a word almost always depends on the context.

In addition, verbs in Biblical Hebrew do not have tenses related to time. Thus, we cannot tell from the verb itself whether the action takes place in the past, in the present, or in the future. Hebrew verbs were action related and indicated either a completed action (perfect form) or an incomplete action (imperfect form). In English, various forms of the verb "to be" (is, am, are, etc.) are used quite often. In Hebrew this verb is often omitted. For example, we might say "I am a father" or "you are clever." The Hebrews would say the equivalent of "I father" and "you clever," i.e., they would not use any verb at all. Hebrew does have, however, a verb *hayah* that means "to be" or "to exist." Forms of this verb are used in the following scriptures:

And God said, Let there be light Genesis 1:3

God said to Moses, "I AM WHO I AM" (or I WILL BE WHAT I WILL BE) Exodus 3:14

However, this verb is not used in many of the situations where a form of "to be" would be used in English. The Hebrew language also does not have an indefinite article "a," but one is often inserted by the translator to make a passage read better in English. Hebrew does have the equivalent of the definite article "the."

Some additional characteristics of the Hebrew language are that it is written from right to left and its letters are all of one case (there are no upper and lower case letters). There are no punctuation marks, although sometimes there are words that serve the same purpose. The word order is usually opposite to that of English with the verb preceding the subject. The distinction between verbs and nouns is not as great as it is in English, with related verbs and nouns often having the same root. Nouns in Hebrew are usually action related. I think you can see from these brief remarks that the Hebrew language is very different from English. This makes the task of translation and interpretation very difficult.

4.2 The Hebrew Way of Thinking

The way we interpret scripture depends a lot on the way we view the world around us (our worldview). The ancient Hebrews viewed the world much differently than we do. Worldviews are generally divided into two categories – Eastern and Western. The way that the Hebrews and other ancient cultures viewed the world would be classified as mostly "Eastern". The "Western" way of thinking was introduced by the Greeks in the sixth century BC through the works of philosophers such as Socrates, Plato, and Aristotle. The Western or Greek way of thinking spread rapidly and is now dominant in our world. Even though Hebrew is spoken in Israel today, modern Hebrew thought is more Western than Eastern. Let us look briefly at how the Eastern and Western ways of thinking differ.

Dynamic vs. Static

The Greeks tended to view change as bad. Things usually deteriorate with time. Thus, they tended to view life in terms of static pictures much like a photograph taken with a camera. The Hebrews on the other hand tended to view life dynamically. They saw the future positively as an opportunity for new beginnings. In English, we make a sharp distinction between nouns and verbs. Nouns refer to persons, places, or things. Verbs refer to actions. Hebrew does not make this sharp distinction. People and things are thought of in terms of what they do. For example, the Hebrews would not think of God in terms of characteristics such as omnipotent or omnipresent. Instead, they would think of God in terms of what he is doing for them or what he has done for them, e.g. “The God who brought us out of Egypt”

Concrete vs. Abstract

The language of the Hebrews is a concrete language, meaning that it uses words that express something that can be seen, touched, smelled, tasted or heard and all five of the senses are used when speaking, hearing, writing and reading the Hebrew language. An example of this can be found in Psalms 1:3

He is like a tree planted by streams of water, which yields its fruit in season, and whose leaf does not wither.

Greek thought deals more with abstractions and generalizations. Examples of abstract thought can be found in Psalms 103:8

The LORD is compassionate and gracious, slow to anger, abounding in love.

The terms “compassionate”, “gracious”, “anger”, and “love” represent abstract concepts that cannot be seen, touched, smelled, tasted, or heard. These terms were used by the translator to make this verse easier to understand by an English speaking reader. The Hebrew words used in this verse were more concrete. For example, the word translated as “anger” actually refers to the nose in Hebrew. Hebrews thought of anger in terms of heavy breathing and a flaring of the nostrils. Hebrews were certainly capable of abstract thought, but it was always tied to something concrete.

Appearance vs. Function

In Greek thought, things are described by their appearance, whereas in Hebrew thought things are described in terms of their function. For example, a Greek thinker might describe a pencil as yellow, approximately seven inches long, and having a tip at one end. A Hebrew thinker would more likely describe it by “I write with it.” Greek descriptions make heavy use of adjectives such as yellow and long. Hebrew descriptions usually involve verbs more than adjectives. If you look at the description of Noah’s ark in Genesis 6 or the description of the tabernacle in Exodus 25–26, you will find that the appearance is not described, only building instructions.

Events vs. Continuous Time

Greek thinkers tend to think of time geometrically in terms of a line with the present representing a point on the line, the future in front of the present point to the right, and the past behind the point to the left. The Hebrews tended to view time as cyclical rather than linear.

They marked time periods in terms of events, particularly important events, that happened during the time period. One example would be their deliverance from Egypt. They didn't tend to think chronologically. For this reason they didn't have time related verb tenses.

Block Logic vs. Step Logic

Greek logic breaks things down into a succession of steps where each step logically follows from the previous step. The Hebrews tended to think in terms of independent blocks of experiences. The blocks didn't necessarily have any relation to one another either logically or chronologically. This type of thinking can frequently lead to contradictions. The Hebrews didn't seem to worry much about contradictions. They believed that any contradictions were only apparent and merely illustrated our limited understanding of God's actions.

Agency vs. Natural

Science primarily deals with the law-like behavior of events rather than the agent that caused them to happen. For example, science might describe the operation of a machine without considering either the designer or the builder. Our culture often thinks of nature as the cause of events. This way of thinking would have been completely foreign to the ancient Hebrews. In fact it would have been foreign to early scientists such as Newton. Newton didn't think that he had explained the solar system when he came up with his law of gravitation. This law could explain why the orbits of planets were elliptical, but it said nothing about the origin of the planets and how they came to be located in their relative positions. Ancient cultures such as the Hebrews tended to view everything in terms of the supernatural. To the Hebrew, if something could not be viewed as due to the action of another human, then it must be due to God.

The Whole vs. The Particular

The picture below was shown to a large number of viewers from around the world. They were asked what they saw in this picture.



Those from Western, Greek thinking cultures usually said they saw a deer. Those from Eastern countries usually saw a grove. The Hebrews, like those from Eastern countries, tended to see the whole rather than the particular. The survey also showed the respondents the following pictures and were asked how they thought the boy in the center felt.



Those from Western, Greek thinking cultures saw the boy as happy in both pictures. Those from Eastern countries saw the boy as happy in the left picture, but sad in the right picture. They figured he was sad in the right picture since everyone else in the picture looked sad.

As we look at the creation account in Genesis, we need to keep in mind how this narrative might have been viewed by the original audience.

4.3 The Days of Genesis 1

Much of the controversy surrounding Genesis 1 centers on the meaning of the Hebrew word “yom” (pronounced yome) for day. In Biblical Hebrew it can mean a 24-hour day, the daylight hours, or a finite period of time of indefinite duration. Its most common meaning is “daylight”. It is only rarely used to represent a 24-hour day. Unlike English, the original Biblical Hebrew had no other word to express a finite period of time of unspecified duration. Some writers have suggested that the Hebrew word “olam” could have been used for that purpose. However, this word only came to mean an age or era in post-biblical writings. In Biblical times “olam” meant forever, always, eternity, etc., i.e. periods of time without a beginning or end. The following are some examples in which “yom” refers to a finite period of time.

Numbers 3:1 *These are the generations of Aaron and Moses in the ^{yom} day that the Lord spoke with Moses in mount Sinai. (From Exodus 34:28 we have So he was with the Lord forty days and forty nights)*

Genesis 2:4 *These are the generations of the heavens and of the earth when they were ^{yom} created, in the day that the Lord made the earth and the heavens.*

Genesis 2:17 *But of the trees of the knowledge of good and evil, thou shall not eat of ^{yom} it: for in the day that thou eatest thereof thou shalt surely die. (Genesis 5:5 states that Adam lived 930 years)*

Psalms 90:4 (attributed to Moses) *For a thousand years in thy sight are but as ^{yom} yesterday when it is past and as a watch in the night.*

yom
Isaiah 34:8 *For it is the day of the Lord's vengeance, and the year of recompenses for the controversy of Zion.*

yom
Hosea 6:2 *After two days he [God] will restore us [Israel]; on the third day he will restore us.*

The seventh “yom” in Genesis 1 is often taken to be a long period of time (possibly extending to the present) since the phrase “and there was evening and there was morning” is omitted.

Hebrews 4:4–11 *For somewhere [God] has spoken about the seventh day in these words: “And on the seventh day God rested from all his work.” ... It still remains that some will enter that rest. ... There remains, then, a sabbath-rest for the people of God; for anyone who enters God's rest also rests from his own work, just as God did from his. Let us, therefore, make every effort to enter that rest.*

It is possible that the seven days in Genesis 1 are, at least in part, a literary device. Ancient Near Eastern literature, particularly from Mesopotamia and Canaan, provides numerous examples of the use of seven days as a literary framework to circumscribe the completion of a significant or catastrophic event (7). The pattern in these works runs uniformly as follows: “One day, a second day, so and so happens; a third day, a fourth day, such and such occurs; a fifth day, a sixth day, so and so takes place; then, on the seventh day, the story comes to its exciting conclusion.” Genesis 1:1–2:3 modifies this pattern from three sets of two days followed by a concluding day to two sets of three days followed by a concluding day. On days 1–3 God gives form to the universe. The characteristic verbs used in these three days are separate and gather. On days 4–6 God fills his creation. The characteristic verbs here are teem, fill, be fruitful, increase.

In some translations we find the phrases “the first day”, “the second day”, “the third day”, “the fourth day”, “the fifth day”, and “the sixth day” associated with the days of creation. Actually, the definite article ‘the’ is not present in the Hebrew for the first five days. In Hebrew the article ‘the’ is expressed by prefixing a word with the letter ‘hey’. Elsewhere in the Old Testament where expressions such as “the first day”, “the second day”, etc. are used, both the number and the word ‘day’ are normally prefixed with ‘hey’. In Genesis 1, only the sixth day and the seventh day have the prefix ‘hey’ and it only on the number. The word for “first” was not used for the initial day. Instead, the word for “one” was used. Thus, the use of numbers with the word ‘day’ in Genesis chapter one has a very unusual construction. A more literal rendering of the Hebrew is “day one”, “a second day”, “a third day”, “a fourth day”, “a fifth day”, and “the sixth day.” The pattern Yom + ordinal number (without “the”) is found only in Genesis 1. The omission of the definite article “the” in all but the sixth creation day allows for the possibility of a literary ordering of the days as well as a strictly chronological order. It would also seem to allow for the possibility of gaps between the days. The use of the article on the sixth day seems to provide a special emphasis.

Each of the six days ends with the phrase “and there was evening and there was morning ...” Authors Mark Van Bebber and Paul Taylor (12) wrote, “This phrase [evening and morning] is used

38 times in the Old Testament, not counting Genesis 1. Each time, without exception, the phrase refers to a normal 24-hour day.” However, it has been pointed out by others that

- The word “day” appears in none of these references.
- In only a few of these do the words “evening” and “morning” even occur in the same sentence.
- The phrase “evening and morning” occurs only once. In Psalm 55:17 David said, “Evening, and morning, and at noon will I pray.”
- 24-hour days were usually marked by “evening to evening” and occasionally “morning to morning.” Evening followed by morning delimits the night.
- The exact phrase “and there was evening and there was morning” occurs only in Genesis 1.

The verses

You sweep men away in the sleep of death; they are like the new grass of the morning — though in the morning it springs up new, by evening it is dry and withered.
Psalms 90:5–6 NIV

are an example of where “evening” and “morning” are used figuratively to delimit a period of time. It is also interesting what is not said in relation to the evening and the morning. The Egyptians believed that the setting of the sun was when the sun god descended into the underworld. He battled with the gods of the underworld throughout the night. The sunrise in the morning represented the victory of the sun god. In the Genesis account there is nothing special that happens during the night. Everything is under God’s control.

Van Bebber and Taylor also said that 358 out of the 359 times “yom” is used with an ordinal number modifier, it represents a 24-hour day. However,

- There is no rule in Hebrew grammar that requires this interpretation.
- All of the 358 cases mentioned refer to human activity where the 24-hour meaning would be natural. Genesis 1 and Hosea 6:2 are the only ones that refer to God’s activity.

It is often argued that the required Sabbath observance indicates that the days were ordinary 24-hour days.

Exodus 20:9,11 *Six days you shall labor . . . , but the seventh day is a Sabbath. . . . For in six days the Lord made the heavens and the earth . . . , but he rested on the seventh day.*

Hebrew scholar Gleason Archer noted, “By no means does this [Exodus 20:9–11] demonstrate that 24-hour intervals were involved in the first six ‘days,’ any more than the eight-day celebration of the Feast of Tabernacles proves that the wilderness wanderings under Moses occupied only eight days.” In addition, Leviticus 25 speaks of a Sabbath year. Thus, it could be argued that the Sabbath is not tied to a particular time duration, but to the pattern of one in seven. It should also be noted that the preposition “in” preceding “six days” in Exodus 20:11 is not present in the Hebrew. Also, the verb translated as “made” is the Hebrew verb “asah” that doesn’t necessarily imply the creation of something new. The creation verbs will be discussed later on.

4.4 Other Key Words in Genesis 1

Let us now look at a few other key Hebrew words that occur in the creation narrative. Notice that the meaning of these words is not as tightly constrained as we find in English.

reshiyth (ray-sheeth´): beginning. In Genesis 1 it occurs in the form **bereshith** that is usually translated “In the beginning.” The prefix **be** can mean in, at, or on. **Bereshith** is the title of the book in Hebrew. In English we often think of the beginning as a point in time, but the Hebrew word most often refers to an initial period of time. This will be discussed later when we consider the literary structure of Genesis 1.

Elohiym (el-o-heem´): The plural form of **Eloahh** (el-o´-ah). It is a combination of the words **el** (the strong one) and **alah** (to bind oneself by oath). Thus **Elohiym** is the mighty and faithful one. It is the only name for God used in Genesis one. In Genesis chapter two **Elohiym** is combined with **Yahweh** and is translated as “the Lord God.” This provides a connection between God as the creator and the covenant God of Israel.

tohu and bohu (to´-hoo and bo´-hoo): Usually translated as “without form and void” (KJV) or something similar. Many Hebrew scholars believe a better translation would be “uninhabited and empty.”

ruwach (roo´-akh): The word for wind, spirit, or breath. When it occurs together with **Elohiym** it is usually translated as the Holy Spirit.

shamayim (shaw-mah´-yim): The sky, the heavens, or the spiritual realm. These three realms are sometimes referred to as the first heaven, the second heaven, and the third heaven.

erets (eh´-rets): Can mean earth, field, ground, land, or region. It often refers to the “promised land.” In modern Hebrew ‘erets’ is used in referring to the United States. Their expression for United States is literally United Lands.

towb (tobe): Can mean good, beautiful, pleasing, or functioning as it should.

adam (aw-dawm´): The word for human, man or mankind.

In the Hebrew there are three primary creation verbs used in the first chapter of Genesis. They are “bara”, “asah”, and “hayah”. Their meaning and usage in Genesis 1 are given below.

bara (baw-raw´): to create; to bring forth something that is radically new. It doesn’t necessarily mean that something is made out of nothing as can be seen in the description of man’s creation (Gen 2:7) where man is formed from the dust of the ground.

*God **created** the heavens and the earth* Gen 1:1

*So God **created** the great creatures of the sea and every living and moving thing with which the water teems, according to their kinds, and every winged bird according to its kind.* Gen 1:21

*So God **created** man in his own image* Gen 1:27

asah (aw-saw´): make; produce; fabricate. This verb doesn’t necessarily imply that something is being made out of something else, you have to look at the context. In fact it doesn’t necessarily mean that anything is made. It can have the meaning of appointing or designating something to perform a certain task. This could be the meaning on the fourth day.

*God **made** two great lights — the greater light to govern the day and the lesser light to govern the night. He also **made** the stars.* Gen 1:16

*God **made** the wild animals according to their kinds, the livestock according to their kinds, and all the creatures that move along the ground according to their kinds.*
Gen 1:25

*Then God said, Let us **make** man in our image* Gen 1:26

*God saw all that he had **made**, and it was very good.* Gen 1:31

hayah (haw-yaw): cause to appear or arise; come into existence. It doesn’t necessarily imply immediate fulfillment.

*Let there **be** light* Gen 1:3

*Let there **be** an expanse between the waters to separate water from water.* Gen 1:6

*“Let the water under the sky **be** gathered to one place, and let dry ground appear.”*
Gen 1:9

Let there be lights in the expanse of the sky to separate the day from the night, Gen1:14

and *let them be* lights in the expanse of the sky to give light on the earth. Gen 1:15

Be fruitful and increase in number; Gen 1:28

4.5 The Literary Structure of Genesis 1

We will now look at the literary form of Genesis 1 (9). Most scholars agree that this chapter has the form of a narrative. First, it does not have the parallelism (repeated lines with the same meaning) that is characteristic of Hebrew poetry. Second, the events of the various days are connected using verbs having a form (the wayyiqtol form) that is characteristic of a narrative. The wayyiqtol form consists of an imperfect verb prefixed by the Hebrew letter waw (vav). “waw” is often translated as “and.” The first wayyiqtol verb occurs in verse 3 (And God Said). Wayiqtol verb forms are typically used to describe sequential events occurring in the past.

Genesis 1, however, is not a typical narrative. It does not involve any human speakers or observers, only God. The narrative is told in a very patterned way involving several repeated phrases:

- And God said
- And God saw that it was good
- And there was evening and there was morning
- And it was so

It should be noted that the Hebrew phrase translated as “and it was so” does not imply immediate fulfillment. For example, exactly the same Hebrew phrase is used in 2 Kings 15:12 where it is translated as “And so it came to pass.”

*This was the promise of the Lord that he gave to Jehu, “Your sons shall sit on the throne of Israel to the fourth generation.” **And so it came to pass.***

The plants and animals are referred to using very broad categories. Plants are grouped into small plants and trees. Animals are grouped into livestock (domestic animals), wild beasts, and creeping things (mice, lizards, spiders). No species except man is given its proper Hebrew name. In addition, the sun and moon are referred to as “the greater light” and “the lesser light”; names not used anywhere else in the Old Testament. Although there is a Hebrew word for sky, this passage uses the poetic term “expanse”. In summary, the language used to describe God’s creation was not technical in nature, even by Hebrew standards.

Verses 1 and 2 of Genesis one contain no wayyiqtol verbs. They contain the perfect tense verbs “created” and “was” as well as the participle “was hovering.” The normal use of verses such as these, preceding the narrative and in the perfect tense, is to describe background information or events occurring prior to the narrative. It was also pointed out in reference (8) that the verb position in these two verses is not typical. In a Hebrew narrative the verb is usually the first word of the sentence. In verses 1 and 2 the verb is in the second position. The author contends that placing the verb in the second position is a way of specifying an already completed action. Thus, there is considerable evidence that the events of verses 1 and 2 occur prior to the first creative day in verse 3. Some have treated verse 1 as a summary of the following narrative. However, the grammar does not appear to support this and it is difficult to square this position with the commonly held doctrine that God created everything out of nothing (the earth already existed in verse 2).

The first word of verse one, bereshith (in beginning), is the Hebrew title for this book. The Hebrew word reshith for beginning is broader than its English equivalent. Now that most scientists accept the “Big Bang” theory for the origin of the universe, it is common to associate this with the beginning described in Genesis. However, this is probably not what the author of Genesis had in mind. The Hebrew word for beginning usually refers to an initial period of time rather than a specific point in time. For example, it was used for the initial period of Job’s life prior to the great catastrophes he experienced later in life. It was also used for the initial period of a king’s reign prior to the official starting date (usually the beginning of the following year).

The phrase “the heavens and the earth” in verse one is an idiom whose meaning is very close to the English words “universe” or “cosmos”. The second verse of Genesis one describes the state of the earth as the narrative begins (formless and empty). The narrative begins in verse 3.

The Old Testament Scholar John Collins calls the Genesis creation account an Exalted Narrative and cautions against being “literalistic” in our interpretation. It is said that the ancient Hebrews did not allow anyone to expound on the first chapter of Genesis until they were at least 30 years of age. They obviously recognized that this was a difficult passage. Maybe, we too should show some humility in approaching this passage.

5 Science and Revelation

The church has long maintained that God reveals himself to us both through the scriptures and through nature.

For since the creation of the world God's invisible qualities — his eternal power and divine nature have been clearly seen, being understood from what has been made, so that men are without excuse. Rom 1:20

But, are these means of revelation separate? Should science play a role in the interpretation of scripture? This question is relevant to the study of the creation account in Genesis 1 since many maintain that the desire to conform to the present view of science is the only reason for considering the days of creation to be anything other than normal 24-hour days. Philosopher and theologian J.P. Moreland addressed this question in a question-and-answer session following a lecture at the Northshore Church in Everett, Washington on February 2, 2002

I doubt, sir, that you or anybody else in the room takes the Biblical passages that say that 'Jesus will call his angels from the four corners of the earth' to teach a flat earth. I also doubt that anyone in here says that when the sun rises and sets it literally means an earth-centered universe. But you must understand that ... there were times when the church interpreted the text that taught that God/Christ will call his angels from the four corners of the world to teach very obviously that the world has four corners. The text says that. You can read it until you're blue in the face, and it says that the Earth has four corners. Similarly, the Bible says the sun rises and sets. Now, that's what it says. You can dance around it all you want. That's what the text says. But there's nobody in here that believes that. No one in here believes the earth has four corners. And so, what we've done is taken that language and interpreted it metaphorically. Similarly, with the rising and setting of the sun, we treat that ... phenomenologically — we say that's the language of description; it is not meant to be taken literally.

...

Now, when it comes to the ... flat earth and the rising and the setting of the sun: it was scientific evidence that caused people to say 'maybe we'd better re-look at those passages.' There was nothing exegetically or strictly in the Hebrew grammar and syntax. There was absolutely nothing about the literary genre of the passage or the historical-grammatical method of interpretation that could tell you anything at all about one way or the other — it was scientific evidence. So now the question was raised by the church interpreters: 'Is there anything essential to this passage that's violated if we take the four corners of the earth to be metaphorical?' Now, their answer was in that particular passage, 'no.' That particular text can allow for that without violating the teachings of the scriptures in that particular text. Now, is this procedure risky in other passages? You bet. But does it follow that it should never be applied? No, you've gotta take texts — each text, on its own. So, the devil's in the details, and you've got to be very, very careful.

It is clear from these remarks that science can play a role in the interpretation of scripture, but that it must be done carefully. We also need to keep in mind that the Bible was never intended to be a textbook on science. The following is a statement by John Calvin in 1534.

The whole point of scripture is to bring us to a knowledge of Jesus Christ — and having come to know him (and all that this implies), we should come to a halt and not expect to learn more. Scripture provides us with spectacles through which we may view the world as God’s creation and self-expression; it does not, and never was intended, to provide us with an infallible repository of astronomical and medical information. The natural sciences are thus effectively emancipated from theological restrictions.

There is a great deal of science that supports the Genesis creation account. Consider these quotes by some famous scientists (18)

There is no doubt that a parallel exists between the big bang as an event and the Christian notion of creation from nothing. (George Smoot, Astronomer, U.C. Berkeley, Nobel Prize in Physics, 2006)

Astronomy leads us to a unique event, a universe which was created out of nothing, one with the very delicate balance needed to provide exactly the conditions required to permit life, and one which has an underlying (one might say, supernatural’) plan. (Arno Penzias, Nobel Prize in Physics, 1978)

An honest man, armed with all the knowledge available to us now, could only state that in some sense, the origin of life appears at the moment to almost be a miracle, so many are the conditions which would have had to have been satisfied to get it going. (Francis Crick, Co-discoverer of DNA)

I think that many Christians today are fearful of science. We need to remember that all truth is God’s truth whether revealed by observation of nature or by the words of scripture. When both are correctly interpreted there can be no conflict. Historically, Christianity was one of the main contributors to the birth of science. The Greeks believed that man could figure out nature using reason alone. The Christian view is that God created the universe out of nothing and therefore had complete freedom to make it however he wanted. Therefore, to understand nature one must look and see, i.e., experiment and observe. Experimentation is one of the main concepts of science. Christians believe that God created the natural world, but He is not part of it. Therefore, we can freely investigate nature without disturbing the “gods”. In addition, science is based on the idea that the natural world is rational and that man has the rational ability to understand it, at least in part. This concept follows easily if everything was created by a rational creator and that man was created in the image of God, but it is hard to understand the origin of this concept otherwise. Up until the 1800s almost all scientists were Christians (Galileo, Newton, Kepler, Boyle, Pascal, Lord Kelvin, Faraday, Maxwell, etc.). In fact their motivation for doing science was to discover something of the mind of God.

A good source of articles on the relationship between Science and Christianity is the **American Scientific Affiliation**. This is an organization of scientists who are also Christians. It was started in 1941 to provide a place where issues relating to science and the Christian faith can be openly discussed. Their web site is <http://network.asa3.org>.

6 Major Interpretations of the Creation Days

In this section I will summarize the four major interpretations of the Genesis creation days as well as five of the lesser known interpretations. A more complete discussion can be found in the Report of the Creation Study Committee to the 28th General Assembly of the Presbyterian Church in America (PCA), 6 July 2000 (1).

1. The Calendar-Day Interpretation — often called the literal view, the traditional view, or the twenty-four-hour view. The Calendar-Day perspective may be described very simply. It accepts the first chapter of Genesis as historical and chronological in character and takes the creation week as consisting of six twenty-four-hour days, followed by a twenty-four-hour Sabbath. Since Adam and Eve were created as mature adults, so the rest of creation came forth from its Maker. The Garden included full-grown trees and animals, which Adam named. Those holding this view believe this is the normal understanding of the creation account and that this has been the most commonly held understanding of this account both in Jewish and Christian history. They believe that the only reason many reject this view is a desire to conform to the current view of science.
2. The Day-Age Interpretation — The six days of the Day-Age view are understood in the same sense as “in that day” of Isaiah 11:10–11 — in other words, as periods of indefinite length. The six days are taken as sequential, but as perhaps overlapping and perhaps merging into one another. According to this view, the Genesis 1 creation week describes events from the point of view of the earth, which is being prepared as the habitation for man. In this context, the explanation of day four is that the sun only became visible on that day, as atmospheric conditions allowed the previous alternation of light and darkness to be perceived as coming from the previously created sun and other heavenly bodies. The Day-Age construct preserves the general sequence of events as portrayed in the text and is not merely a response to Charles Darwin and evolutionary science. From ancient times there was recognition among Bible scholars that the word “day” could mean an extended period of time.
3. The Framework Interpretation — the distinctive feature of the Framework view is its understanding of the week (not the days as such) as a metaphor. According to this interpretation, Moses used the metaphor of the week to narrate God’s acts of creation. Thus, God’s supernatural creative words or fiats are real and historical but the exact timing is left unspecified. The purpose of the metaphor is to call Adam to imitate God in work, with the promise of entering His Sabbath rest. Creation events are grouped in two triads of days: Days 1–3 (creations kingdoms) are paralleled by Days 4–6 (creation’s kings). Adam is king of the earth; God is the King of Creation. Also Days 1–3 can be looked upon as days of forming and Days 4–6 can be looked upon as days of filling.
4. The Analogical Days Interpretation — According to the Analogical view, the “days” of Genesis 1 are God’s workdays, analogous (but not necessarily identical) to human workdays. They set a pattern for our rhythm of work and rest. The six days represent periods of God’s historical supernatural activity in preparing and populating the earth as a place for humans to live, love, work, and worship. These days are broadly consecutive. That is, they are

successive periods of unspecified length. They may overlap in part, or they may reflect logical rather than chronological criteria for grouping certain events on certain days. The major aspect of this interpretation is that the days of creation are viewed from God's perspective.

6.1 Other Interpretations

- The Intermittent Day Interpretation — In this view the days are ordinary 24-hour days separated by periods of unspecified length. Thus, the days are “normal” and consecutive, but not contiguous. The main thrust of this interpretation is to harmonize the account in Genesis with the long time periods believed in by most scientists. The lack of a definite article with days one through five would seem to allow for this possibility. The Oxford Mathematician John Lennox takes this viewpoint in his book **Seven Days That Divide The World** (20).
- The Days of Divine Fiat Interpretation — This is a view proposed by the English physicist Alan Hayward in his book **Creation and Evolution** (11). Here the days are six consecutive 24-hour days in which God said his instructions, while the fulfillment of those instructions took place over unspecified and possibly overlapping periods of time. Hayward interprets the result following each of God's pronouncements as a parenthetical expression (there were no parentheses in Biblical Hebrew, but translators sometimes insert them). For example, he would write the account of the first day as follows

And God said, “Let there be light.” (And there was light. And God saw that the light was good. And God separated the light from the darkness. God called the light Day, and the darkness he called Night.) And there was evening and there was morning, the first day.

The result of God's pronouncement is sure, but may take place over an unspecified time period.

- The Temple Interpretation — In this interpretation the seven days are seen as describing God's construction of a temple for himself. This interpretation can be found in the works of Walton (16) and of Middleton (17). In ancient cultures a temple was seen as a dwelling place for their god. In this interpretation of Genesis 1 the whole cosmos (the heavens and the earth) is viewed as God's dwelling place. This view is also echoed in Isaiah 66:1–2

*This says YHWH
Heaven is my throne
and earth is my footstool.
Where could you build a house for me?
What place could serve as my dwelling?
All this was made by my hand,
And thus it came into being — declares YHWH.*

Walton emphasizes that ancient accounts were more interested in the creation of function than in the creation of the material world. He gives as a modern example the creation of a company. A company doesn't come into existence with the construction of the buildings, but

with the commencement of business operations. Middleton emphasizes the importance of images in a temple. Images were placed in ancient temples to indicate that their god resided there. They didn't believe that these images or idols were actually gods, but were a reminder of their god's presence. In Genesis 1 we are described as being God's images. We are to remind the world of God's presence. Ancient cultures used the size of their temples to show the importance of their god. Surely no temple was as large as that described in Genesis 1.

A number of authors have noticed the importance of the number seven in the creation account of Genesis 1:1–2:3. Here are some of the occurrences of seven in this passage

1. There were seven days described.
2. There were seven execution reports ("and it was so").
3. There were seven evaluation reports ("and God saw that it was good").
4. God is mentioned 35 times (5×7) in this passage.
5. The earth is mentioned 21 times (3×7) in this passage.
6. The entire passage contains 469 (67×7) Hebrew words.
7. The opening verse Genesis 1:1 contains seven Hebrew words.
8. The second verse of the preamble (Genesis 1:2) contains 14 (2×7) Hebrew words.
9. There are 35 (5×7) Hebrew words describing the 7th day and the Hebrew Sabbath.

The number seven also played an important role in the construction of Solomon's temple. The temple was dedicated during the seven day Feast of Tabernacles (1 Kings 8:2). Solomon's dedication speech contained seven petitions. It should also be noted that the building of the temple took seven years.

The gods in ancient cultures were often described as resting in their temple after an important battle with other gods or after resolving some form of chaos. This didn't indicate inactivity, but was an indication of a return to normalcy. In Genesis God is said to have rested on the seventh day.

This interpretation is often adopted by Theistic Evolutionists, but there is no reason it needs to be restricted to this group.

- Attack against Polytheism — When we come to the opening chapters of Genesis, we ask questions such as "How was the universe created?"; "In what order were things created?"; "How long did it take?"; "How does this account square with the findings of science?"; etc. However, these were probably not the questions the original hearers were asking. It has been traditionally believed that Genesis was written by Moses during the wanderings in the wilderness following the deliverance from Egypt. The Hebrews had spent approximately 400 years in Egypt where they were certainly exposed to the Egyptian gods. Some scholars believe that the creation account in Genesis 1 is an attack against polytheism rather than a detailed description of creation. All the cultures in that part of the world (Egyptian, Mesopotamian, etc.) had gods associated with almost every aspect of nature. They had gods for light, darkness, the sun, the moon, seas, the sky, birds, animals, and sea creatures. It is possible that each of the days is an affirmation that every aspect of nature is the creation

of the one true God and is not under the control of a separate god. It is certainly true that polytheism was a major threat to the nation of Israel throughout its history.

- Historical Creationism — This is an interesting interpretation of Genesis 1 and 2 presented by Old Testament Professor John Sailhamer in his book *Genesis Unbound* (19). He bases his approach to this chapter on an analysis of the Hebrew text in the context of its location at the beginning of the Pentateuch. In his interpretation, Genesis 1:1 describes the creation of the whole universe and the Hebrew word ‘reshit’ for beginning refers to an unspecified period of time (possibly billions of years). He claims that a better translation of the Hebrew word ‘eretz’ in verse 2 and the rest of Genesis is ‘land’ rather than ‘earth’ as is common in most translations. In particular, he believes that in most cases it refers to the land promised to his people by God. He also says that the Hebrew phrase ‘tohu wabohu’ in Genesis 1:2 does not mean ‘without form and void’ as it is often translated. Instead, he claims that the phrase conveys the idea of ‘uninhabitable’ and ‘wilderness’. As a result, he interprets the six days described in Genesis 1 as God’s preparation of a land for his people and does not refer to the creation of the whole earth (this was done in verse 1). He draws a parallel between Eden in Genesis 2 and God’s later ‘promised land’. In both cases the land was bounded by the Tigris and Euphrates rivers, in both cases God had a close relationship with his people in the land, and in both cases obedience to God was a condition for continuing to dwell in the land. Following disobedience to God’s commands, in both cases his people were expelled from the land towards the east (Babylon). He claims that his interpretation fits in well with the rest of the Pentateuch and solves many other problems that have plagued interpreters.

There are many other interpretations, but these should give you an idea of the principal interpretations. Let us now look at the principal arguments for and against the four major views described above.

7 Arguments For and Against

Arguments for the Calendar Day Interpretation: Some of the major arguments for this interpretation are the following:

- This interpretation is the most natural. Probably most people interpret the days this way when they first read this passage. It is the view taken by most (but not all) Christian scholars throughout the history of the church.
- The use of evening and morning and ordinal numbers with the days points to a normal 24-hour day interpretation. This was discussed previously in the section describing the language and cultural background of Genesis 1.
- This view gives strong support both to the historicity of the account and to the miraculous nature of creation.
- This view doesn't have to deal with the problem of death occurring before God's curse.
- This interpretation meshes well with other passages of scripture and provides a natural framework for the Sabbath observance.

Arguments against the Calendar Day Interpretation: Some of the major arguments against this interpretation are the following:

- Much of the naturalness of this argument stems from English translations and present day views of the meaning of words.
- The major argument against this viewpoint is that its time scale disagrees with the time scale believed in by most scientists. For example, the fossil record, radiometric dating, the time for light to reach us from distant galaxies, the background radiation temperature, and the expansion rate of the universe seem to point to a very old creation. The proponents of the calendar day interpretation caution us that it is dangerous to tie our interpretations of scripture to the current view of science, as this view is likely to change in the future. However, most scientists believe that a significant change in these estimates would call into question a large part of Physics.
- Another argument against this interpretation is that it seems like Adam has an awful lot to do on day six (maintaining the Garden, studying the animals, naming the animals, relating to Eve). Also in day three it doesn't say let there be fruit trees and vegetation, but it says let the earth produce seed bearing plants and trees bearing fruit. This seems to indicate a growth cycle over a period of time.
- The young-earth creationists claim that other hominids such as the Neanderthals were descended from Adam. Recent DNA studies at the University of Stockholm, the University of Glasgow, and the Max Plank Institute seem to deny this connection.

- In addition, a young age for the earth means that there must have been a very rapid expansion in the number of species following the flood. In fact opponents estimate that the rate of creation of new species would have to have been much greater than is claimed by Darwinists.
- Some see the fact that the sun and moon were not mentioned until day four to be a problem. The proponents of the calendar-day interpretation claim that God himself provided light and darkness during the first three days. He did this to highlight the fact that God is the one who determines the length of days, not the sun and the moon which were worshiped by many ancient cultures. However, it is not obvious to many that the first three days, at least, were ordinary days.
- The Bible in Leviticus 25 speaks of a Sabbath year as well as Sabbath day. Thus, the Sabbath is not tied to a particular time duration, but to the pattern of one in seven.

It should be pointed out that not all proponents of the calendar day viewpoint believe in an early creation date. Some of the viewpoints that were presented in the ‘Other Interpretations’ section treat the days as normal days.

Of all the interpretations, the proponents of the calendar day view seem to be the least tolerant of other viewpoints. However, the following quotation by a pair of young-earth creationists is very encouraging (3)

*As we shall argue later, recent creationism is an attempt to reinterpret the data, not to deny their existence or importance. As it is now interpreted, the data are mostly against us. Well and good. We take this seriously. Eventually, failure to deal with that data in a recent creationist scientific theory would be sufficient reason to give up the project. We think, however, that progress is being made. The potential rewards outweigh the liabilities. Theistic naturalists and old-earth creationists are free to develop their ideas. Recent creationists will do the same. In the end, we are confident that the world, and the creator, will reveal the truth of the matter. In the meantime, dogmatic pronouncements from any camp are counterproductive. Recent creationists should humbly agree that their view is, at the moment, implausible on purely scientific grounds. They can make common cause with those who reject naturalism, like old-earth creationists, to establish their most basic beliefs. When the dust has cleared from that intellectual revolution, they can see how the landscape looks. It would not be surprising if many things once “known” for sure would be less certain. This of course might include the age of the cosmos. **Paul Nelson and John Mark Reynolds***

Arguments for the day-age interpretation: This viewpoint maintains the historical and chronological nature of the passage while allowing for the longer time periods accepted by most scientists. It is also largely consistent with the order in the fossil record. This interpretation takes the Hebrew word “yom” for day to mean a finite but indefinite period of time. Since this is one of the allowable meanings of “yom”, this interpretation can also be considered a “literal” interpretation. While the days are assumed roughly consecutive, this viewpoint does allow for some overlap. They believe

that God created many new species prior to the creation of Adam, balancing those becoming extinct. Since God rested after the creation of man, this would account for the fact that, since the appearance of man, there doesn't seem to have been any new animal species come into existence while a large number of species have become extinct. More information on this viewpoint can be obtained from the web site www.reasons.org.

Regardless of how one feels about this interpretation, it should be acknowledged that it has been instrumental in removing some of the barriers that have prevented many scientists from taking the Bible seriously. The same can be said for Theistic Evolution.

Arguments against the day-age interpretation: One of the biggest points of contention with this viewpoint centers on the question of when death entered the world. If the fossils were from periods prior to the time of Adam, then there was death before Adam and Eve's rebellion and the resulting curse. How does the day-age view deal with the following scripture passages?

Romans 5:12 *Sin entered the world through one man, and death through sin, and in this way death came to all men, because all sinned.*

1 Cor 15:21–23 *For since death came through a man, the resurrection of the dead comes also through a man. For as in Adam all die, so in Christ all will be made alive. But each in his own turn: Christ, the first fruits; then, when he comes, those who belong to him.*

Romans 8:20–22 *For the creation was subjected to frustration, not by its own choice, but by the will of the one who subjected it, in hope that the creation itself will be liberated from its bondage to decay and brought into the glorious freedom of the children of God. We know that the whole creation has been groaning as in the pains of childbirth right up to the present time.*

The question is whether these verses refer to all death or only to the death of humans? Could there have been animal death before the fall? The first two of the above references seem to apply only to man. Death was first of all spiritual and then later physical. Adam lived a number of years after disobeying God. Death was the consequence of a moral choice. It is not thought that animals make moral choices. Romans 8: 20–22 speaks of decay, but it is not clear that this is the result of Adam's sin or was part of God's plan from the beginning. There is a difference between death due to disease and death as part of the natural cycles of nature. Many animals seem to be designed to kill other animals for food, and many animals seem to have built in means of protection from predators. Did God have to remake all these animals after Adam's sin? When considering whether all death is the result of Adam's and Eve's sin we should not overlook the fact that Adam and Eve were not the first creatures to sin against God. Satan or Lucifer (meaning morning star) and his followers were apparently the first (see Isaiah 14:12–15).

Jude 6 *And the angels who did not keep their positions of authority but abandoned their own home — these he has kept in darkness, bound with everlasting chains for judgment on the great Day.*

Another related question is whether physical immortality was inherent in man. Is it possible that man's continued mortality was related to his access to the tree of life? The following New Testament verse seems to indicate only God is immortal

1 Tim 6:16 *[God] who alone is immortal and who lives in unapproachable light, whom no one has seen or can see. To him be honor and might forever. Amen.*

It has been pointed out that agreement with the scientific data requires some overlap of the days. There is no evidence of this overlap in the text. Another objection voiced against the day-age interpretation is that the desire to conform to present day science tends to de-emphasize the miraculous nature of the creation events.

Arguments for the framework interpretation: The week was used by a number of early near-east civilizations as a framework to describe important events. There does seem to be a parallelism between days one through three and days four through six. Days one and four are both concerned with daylight and night, light and darkness. Days two and five are both concerned with the skies and the seas along with their inhabitants. Days three and six deal with the dry land and with the vegetation, animals and people that live there. Days one through three are days of forming and days four through six are days of filling.

Day 1 light	Day 4 Sun, moon, and stars
Day 2 Sky separating waters above and waters below	Day 5 Birds of the air and creatures of the sea
Day 3 Land and vegetation	Day 6 Land animals and man
Day 7 God rested	

In this interpretation there is no time duration or order associated with the various creation events. The order is determined primarily by literary considerations. Thus, this interpretation is not in conflict with science in regards to the age of the earth or the time ordering of events. In the second chapter of Genesis it appears that man is created before the plants and animals. This is used by some to argue that the ordering of events in Genesis 1 is not chronological. The framework interpretation is held by many theistic evolutionists.

Arguments against the framework interpretation: Opponents of this interpretation feel that treating the creation week as a metaphor weakens the historical nature of the narrative. Other

portions of scripture do treat the creation events as being historical. Proponents of this viewpoint maintain that their non-literal interpretation does not negate the historical nature of the events being described. It has also been pointed out that the correspondence between days 1–3 and days 4–6 is not as clear cut as it first appears. Day four is related to day one as providing sources of light, but the sun and stars were placed in the heavens that were not created until day two. Also the marine animals are related to the separation of the waters in day two and also the formation of the seas in day three. Many feel that the use of numbers with the days and the use of wayyiqtol verbs to connect the days indicate some sort of chronological ordering. Some proponents of the framework viewpoint believe that days one and four, for example, refer to the same event. Many scholars feel that this weakens the patterning of our work week after God’s work week. It is also argued that this interpretation is too complicated to be understood by the original readers and that it has only appeared recently in the history of the church. There were, however, some such as Augustine who had a non-literal interpretation of the creation days.

Arguments for the analogical days interpretation: This interpretation shares much in common with the day-age interpretation. In both of these interpretations the sequence of events is maintained, but a day could represent an extended period of time to a viewer on the earth. The analogical days viewpoint differs in that it looks at the events from God’s perspective rather than from an earth dweller’s perspective. It emphasizes that God is the primary player in this narrative. This interpretation strongly implies that we should pattern our work week after God’s work week. A detailed argument for this interpretation is contained in reference (9), a commentary on the first chapters of Genesis by the Hebrew scholar John Collins.

Arguments against the analogical days interpretation: Many scholars feel that the distinctions made in this interpretation are too subtle to be appreciated by the original audience. In addition there does not seem to be any other portion of scripture where this viewpoint is taken. To be fair it should be pointed out that Genesis 1 is very unique due to the fact that there were no human witnesses present.

8 Common Ground

We have talked about the ways in which various viewpoints differ in the interpretation of Genesis 1. However, Genesis has some clear messages that don't depend on how we view the days of creation. The following statement was taken from the book **Authentic Christianity: From the Writings of John Stott**, p. 89, InterVarsity Press.

God's Word is designed to make us Christians, not scientists, and to lead us to eternal life through faith in Jesus Christ. It was not God's intention to reveal in Scripture what human beings could discover by their own investigations and experiments. So the first three chapters of Genesis reveal in particular four spiritual truths which could never be discovered by the scientific method. First, that God made everything. Secondly, that he made it out of nothing. There was no original raw material as eternal as himself on which he could work. Thirdly, that he made man male and female in his own image. Fourthly, that everything which he made was 'very good'. When it left his hand it was perfect. Sin and suffering were foreign invasions into his lovely world, and spoiled it.

The young-earth creationists J. Ligon Duncan III and David W. Hall present some similar points in the book **The Genesis Debate** (2):

- God created the world and is distinct from it (but not unconcerned about it).
- God shaped his creation from formlessness into order and filled it from emptiness to fullness.
- God's world was originally good and, therefore, different from the corrupted world in which we now live.
- Man's sin is entirely responsible for corrupting original creation.
- God's character (justice and mercy) is revealed as He responds to the three "low points" of primeval history: the Fall, the Flood, and Babel.

Certainly, 'Creation by God' is an important Christian doctrine. The fact that man was created in God's image provides a sense of dignity to all men. Also, the fact that God's creation was originally 'very good' is what makes man's Fall into sin so tragic. Our sinfulness is not just the way we are, but is a corruption of what we were created to be.

I hope that you can see from the above that, as Christians, we can agree on many important aspects of creation while possibly holding differing views on the length and nature of the days.

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