

The Genesis Creation Story

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Abstract

In some quarters there is much ado about how the universe and life on earth came to be. Some accept the findings of modern science and others rely upon a literal reading of the creation story in Genesis. For those of the Christians faith a simple resolution involves asking the question “Does it matter how we came to be?” Jesus never mentions the Genesis creation story. His gospel is not concerned with where we came from but is solely concerned with where we should be going and how to get there. If Jesus didn’t find it important, then why should any of the Christian faith?” Perhaps it would be better to leave the creation story to rabbis to explain and concentrate on the gospel of Jesus that is found only in the New Testament. Unfortunately that simple answer will not satisfy many who adhere to creationism. If there is to be any hope of a resolution between the Genesis version of creation and that of modern science, then a common sense approach involves trying to match the events in the Genesis creation story to events in evolution as described by modern science. Many rabbis and biblical scholars conclude that Genesis 1 and 2 are written in symbolic language and not as a description of scientific origins. They could be correct but there are things described in Genesis that closely parallel modern science. Some say that the Bible is not a science text book. They are correct but if the story came from God then it reasonable that what is described should match the findings of modern science. The key is to understand that it is unknown how the Genesis stories originated. Moses, the presumed author of Genesis certainly was not an eye witness to the events described. Is it possible that the stories are the result of a vision given to Moses by God or is Moses committing to writing stories from an unknown source from the distant pass? If the stories result from a vision then we must make allowances for human error in their recounting. Moses would also have no way of determining the passage of time or if shown something microscopic, or as massive as a galaxy, Moses would not be able to discern the scale. There is no evidence in Genesis that God dictated the stories to Moses or assisted in any way in the writing. We must therefore make allowances.

Introduction

Several years ago a number of creationist organizations were contacted and asked if they had made any attempt to reconcile the Genesis account with that of science. The few answers received indicated that apparently no such effort has ever been undertaken. Perhaps it is time to make such an effort.

Before any analysis can begin, it will be necessary to obtain an accurate translation of Genesis. The *King James Bible*, that is generally cited, was authorized by King James the 6th of Scotland, and the 1st of England, and was translated and compiled between 1604 and 1611. In the ensuing years more documents have been discovered that have allowed a more accurate translation and have eliminated many errors in translation and archaic words found in the King James Bible. There are two excellent sources:

The Torah (in English) published by the Jewish Publication Society of America.

The Anchor Bible Book of Genesis, by Ephraim Avigdor Speiser, is a very scholarly translation with copious notes and commentaries composing 75 percent of the book and was originally published by Doubleday & Company, New York, 1964, Library of Congress Card Number 64-21724. It is now published by Yale University Press. See:

http://en.wikipedia.org/wiki/Anchor_Bible_Series

E.A. Speiser (1902-1965) received his Ph.D. from Dropsie University, Philadelphia, Pennsylvania, now known as the Herbert D. Katz Center for Advanced Judaic Studies. It is the world's only institution exclusively dedicated to post-doctoral research on Jewish civilization and writings. Speiser was Chairman of the University of Pennsylvania Department of Oriental Studies and was fluent in several Semitic languages, including, of course, Hebrew.

http://en.wikipedia.org/wiki/Ephraim_Avigdor_Speiser

IN THE BEGINNING

King James Bible, Genesis 1:1-

- 1- In the beginning God created the heavens and the earth.
- 2- The earth was without form, and void; and darkness was on the face of the deep. And the Spirit of God was hovering over the face of the waters.
- 3- Then God said, "Let there be light" and there was light.

- 4- And God saw the light that it was good; and God divided the light from the darkness.
- 5- God called the light Day, and the darkness He called Night. So the evening and the morning were the first day.

Anchor Bible: Genesis 1:2

The **Anchor Bible** translates the last part of sentence 2 as:

- 2- "--only an awesome wind sweeping over the water."

Some creationists contend that God created the universe from nothing and science starts with something. Neither the Bible nor science is clear as to what was in existence, if anything, from before the beginning. According to modern science, at the commencement of the birth of the universe, all that would constitute the universe was confined to an incredibly small speck smaller than an atom that burst forth in what is now referred to as the "Big Bang." Television documentaries portray the Big Bang as a blinding flash of light and a thunderous roar. This makes for a dramatic beginning scene but is completely false. At the commencement of the Big Bang all that existed were fundamental gluon and quark particles so incredibly hot that the four fundamental forces of nature – electromagnetism, gravitation, strong nuclear interaction and weak nuclear interaction were all unified in one fundamental force.

With temperatures in the trillions of degrees Fahrenheit atoms, much less anything material, could not form and thus the universe was 'without form'. Light was trapped in the super dense plasma and darkness prevailed. The universe was also expanding at an incredible rate and to the ancient author what better way to describe it as an "awesome wind."

As the temperature and density of the universe began to decrease, hydrogen began to form but was ionized; that is, no electrons are bound to the proton nuclei. As the universe further cooled, electrons were captured by the hydrogen ions, forming electrically neutral hydrogen atoms. This process is known as recombination. At the end of recombination the photons mean-free-path became effectively infinite, the universe became transparent and photons could now travel freely. In lay terms, light finally emerges from the darkness just as Genesis 1:4 states; only it did not happen in one 24-hour day but after 380,000 years after the Big Bang. The universe continued to cool and the initial light faded, and the universe entered what astronomers call the "Dark Age." See exhibit 1 below.

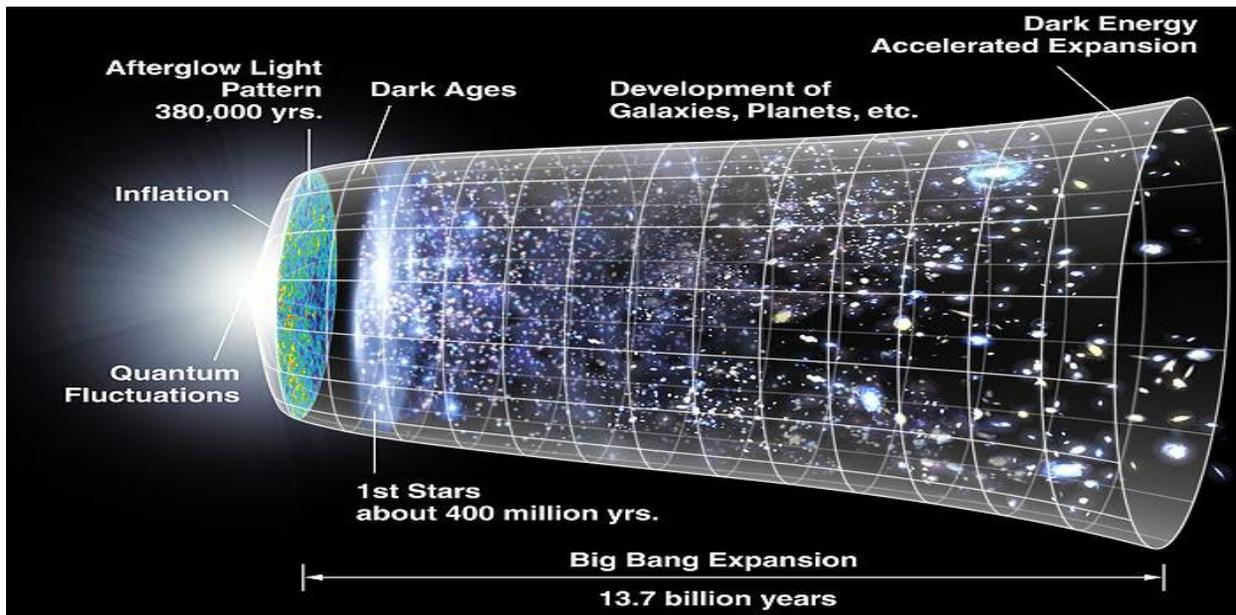


Exhibit – 1 The Expanding Universe

King James Bible, Genesis 1:6-8

6- Then God said, “Let there be a firmament (expanse according Young’s Concordance) in the midst of the waters, and let it divide the waters from the waters.

7- Thus God made the firmament, and divided the waters which were under the firmament from the waters which were above the firmament; and it was so.

8- And God called the firmament Heaven. So the evening and the morning were the second day.

With temperatures in the trillions of degrees Fahrenheit, water could not exist in the nascent universe. The ancient author would have no way of describing the chaotic soup of elementary particles, or the later swirling clouds of gas and dust, other than through the use of the word “water,” a swirling fluid. Eventually the great mass of hydrogen gas created at the beginning began to accrete into clumps that drew in gas and grew massive enough to ignite a thermonuclear fusion reaction that formed immense stars known as quasars. These early stars quickly consumed their fuel and went super nova spewing forth into the cosmos the heavier atoms that formed under the immense pressure and heat of these primeval giants; materials from which stars, the earth and other planets would

eventually be composed. As the universe continued to expand the quasars drew farther and farther apart, and darkness once again descended upon the universe. Thus, with the coming of light and the fading of light, a second day.

The use of the words “day and evening” in the opening chapter of Genesis has formed the basis for the creationist contention that the use of the word “day” means a 24-hour period, and, thus, the universe, earth and humans coming into being over the course of six days of 24 hours each. What creationists failed to take into consideration is asking the question “What is the light that is mentioned in the text?” The sun is not mentioned until the fourth day, and if it is not the sun in Genesis 1:3-5, then what was it that produced the light. There are some possibilities.

If the light was the result of the sun obscured by a heavy cloud layer, surely the writer would have had experience with viewing the sun as a hazy light-spot in heavy cloud cover and would have referred to the light as the sun or certainly later, when it would have become clear that the light was from the sun. If the Genesis author recognized that the light was from the sun, why then would he not use the phrase “sunrise and sunset” rather than the phrase “morning and evening?” Since the author doesn’t do this, it leaves one to consider that the author is not certain of the source of the light. The coming of light and the disappearance of light are what constitute a day and a night to the **Genesis** author in the absence of any means of determining actual time. As we shall see, there are many times in the history of the universe that epochs are denoted by the coming of light and the coming of darkness. Genesis 1:3-5 can be considered as a means of describing vast stretches of time. See the articles **The Six Days of Creation** and **The Age of the Patriarchs Problem** (<http://www.csun.edu/~vcgeo005/Nr41SixDays.pdf>) for a further discussion of time.

King James Bible: Genesis 1, 9-13

9- Then God said, “Let the waters under the heavens be gathered together in one place, and let the dry land appear”; and it was so

10- And God called the dry land Earth, and the gathering together of waters He called Seas. And God saw that it was good.

The scene then changes from the early universe to the solar system where it was still dark and in the early stages of the creation of the sun and planets about 9.2 billion years after the Big Bang. Science refers to the early water as the Lapetus Ocean and the land mass as a super continent referred to as Columbia or Nuna that formed 2.1 – 1.8

billion years ago.

https://en.wikipedia.org/wiki/Origin_of_water_on_Earth#Water_in_the_development_of_Earth

King James Bible: Genesis 1, 11-13

11- Then God said, “Let the earth bring forth grass, the herb that yields seed, and the fruit tree that yields fruit according to its kind, whose seed is in itself, on the earth”; and it was so.

12- And the earth brought forth grass, the herb that yields seed according to its kind, and the fruit tree that yields fruit, whose seed is in itself according to its kind. And God saw that it was good.

13- So the evening and the morning were the third day.

Biblical critics have long used Genesis verses 1:11-13 to show that the story of Genesis is but a fabrication as anyone knows that plants cannot grow in the absence of sunlight, with the exception of mushrooms and other fungus, and the text clearly states that the sun does not appear until day four. Surely the **Genesis** author would realize that plant life cannot exist without sunlight. How many times must the author have laid a covering over a grassy area to form the floor of a tent and weeks later removed it and noted that the grass has turned yellow and dead; and yet he places plant life before the appearance of sunlight? In addition, critics claim, according to Genesis 1:20-22, seed-bearing plants and fruit-bearing plants evolved long after life appeared in the sea. Ginkgo trees are believed to be the first seed bearing plants and appeared around 276 million years ago. The time line for the first fruit bearing plants is not so certain but believed to have occurred between 120-190 million years ago and surprisingly grasses only appeared 60-55 million years ago.

<http://en.wikipedia.org/wiki/Devonian>

Once again, it is important to emphasize that the Genesis author is describing things and events in terms that he can relate to and, moreover, that subsequent generations will accept and pass down to future generations. A century and a half ago it was assumed that the first life on earth required sunlight. Subsequent findings have determined that the early Earth did not have a protective layer of ozone high in the stratosphere to block the deadly ultraviolet rays of the sun that would have been fatal to any form of life at the surface that was not protected from direct exposure. First life forms most likely formed deep in the

seas around thermal vents (smokers) or in clay strata where they were protected from the destructive light of the sun.

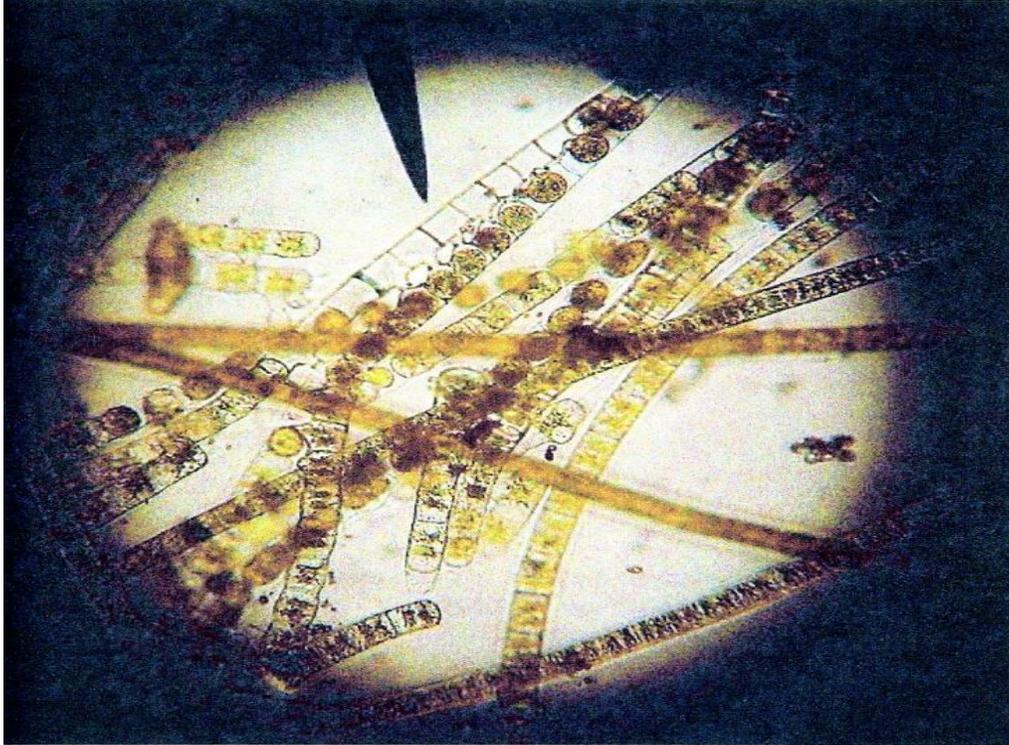
https://en.wikipedia.org/wiki/Graham_CairnsSmith

These early life forms only needed to utilize the absorption of gases, water, minerals, and heat to sustain life. Eventually blue green algae evolved that produced and expelled oxygen as a byproduct. Over millions of years these blue green algae released billions of tons of oxygen into the carbon dioxide, methane, and nitrogen atmosphere and replaced it with an oxygen / nitrogen atmosphere. Some of the oxygen formed an ozone layer high in the atmosphere and blocked most of the sun's harmful ultraviolet rays and made life near the surface of the seas possible and eventually possible on land.

The early seas were a virtual zoo of primitive life forms and some undoubtedly were long slender blue green algae that had a greenish cast to them that the Genesis author took to be grass. Other forms were brachiated with many limbs that gave the appearance of a tree. Certainly the author would have no other way of describing such a cellular organism having no knowledge of something that is living yet invisible to the naked eye.

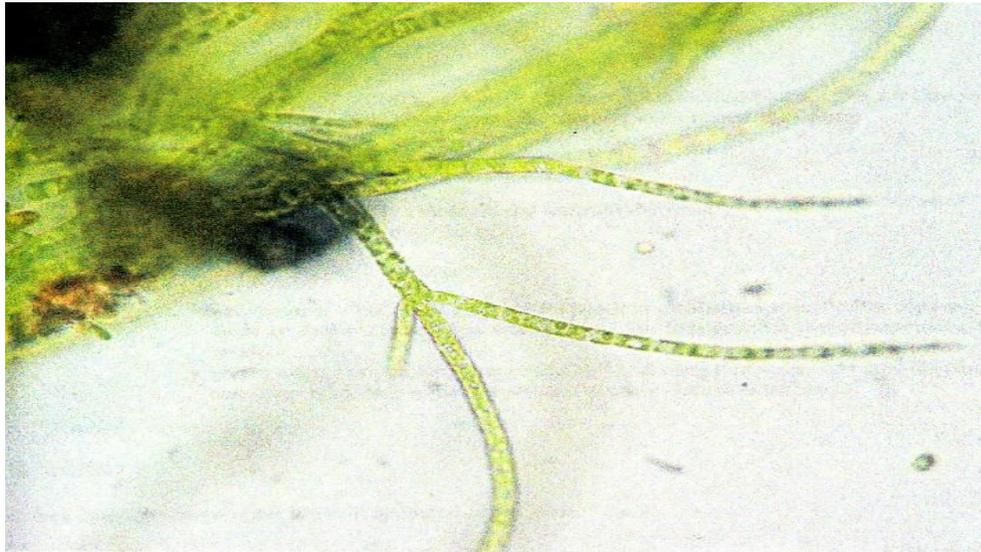
Many early life forms reproduced by budding. A growth would develop on one of the limbs and eventually separating giving the Genesis author the idea that the "tree" was bearing "fruit." The nucleus inside the budded "fruit" would give rise to "fruit with the seed inside." Plant life indeed had its beginnings long before the rise of fauna (animals). To demonstrate this, look at the following pictures of what early plant life in the sea may have looked like.

If you were shown these pictures in a dream or vision, having no knowledge of evolution, would you perhaps mistake them for plants or perhaps a tree with fruit with the seed inside? The author of Genesis would have no idea that what he saw was deep in the sea, microscopic or was from a distant age. All of this is taking place in darkness in the absence of the sun. Is this absence due to the sun not yet having ignited or is this the result of the Genesis author erroneously placing first life prior to the ignition of the sun. On day four, the sun finally ignites and so ends "day" three.



Algae conjugate (Green Algae) Courtesy Rozzy Chan

<http://en.wikipedia.org/wiki/File:Algaeconjugate.jpg.jpg>



Stigeoclonium Algae Courtesy Kristian Peters

http://en.wikipedia.org/wiki/File:Stigeoclonium_sp_zugespitztesseitenzweige.jpg

King James Bible: Genesis 1, 14-19

- 14- Then God said, “Let there be lights in the firmament of the heavens to divide the day from the night; and let them be for signs and seasons and for days and years;
- 15- “And let them be for lights in the firmament of the heavens to give light on the earth”; and it was so.
- 16- Then God made two great lights: the greater light to rule the day, and the lesser light to rule the night. He made the stars also.
- 17- God set them in the firmament of the heavens to give light on the earth,
- 18- And to rule over the day and over the night, and to divide the light from the darkness. And God saw that it was good.
- 19- So the evening and the morning were the fourth day.

The scene then shifts from the darkness of the deep sea to a sun lit surface and results in the order in which the Genesis author places subsequent events.

The ignition of the sun would account for a “morning” to the Genesis author, **but** what would constitute the evening? Prior to about 600,000 years ago the earth underwent an ice age like none since. The ice didn’t cover just Europe and half of North America, as in the last ice age; this ice age covered the entire earth. Speculation as to what caused the ice age involves bacteria that was absorbing carbon dioxide from the atmosphere and replacing it with oxygen. Eventually the depletion of carbon dioxide allowed a run-away ice age. Science was puzzled for a long while as to why life didn’t disappear under such harsh conditions. Ice would have blocked sunlight and made evolution and survival of photosynthesis life highly unlikely. Recent discoveries have revealed that if ice forms slowly it is transparent and would allow some sun light to enter. In the Antarctic life is swarming under just such ice. Then about 600 million years ago the ice age came to an end, probably through volcanic activity and the spewing of carbon dioxide into the atmosphere. Evolution now accelerated in what has become known as the Cambrian Explosion and the earth soon had complex organisms with fins, claws, and teeth. Evolution was on a fast track.

King James Bible: Genesis 1, 20-23

- 20- Then God said, “Let the waters abound with an abundance of living creatures, and let

birds fly above the earth across the face of the firmament of the heavens.”

21- So God created great sea creatures and every living thing that moves (*every kind of crawling creature according the Anchor Bible*), with which the waters abound, according to their kind, and every winged bird according to its kind. And God saw that it was good.

22- And God blessed them, saying, “Be fruitful and multiply, and fill the waters in the seas, and let birds multiply on earth.

23- So the evening and morning were the fifth day.

The use of the phrase ‘after their kind’ is a mistranslation. The Torah and Speiser translate it as ‘every kind of ‘; that is, a variety of. During the Cretaceous period life in the seas proliferated and gigantic aquatic predators evolved. It is interesting that the Genesis author mentions life in the sea but does not use the word “fish” but the phrase “living creatures.” Could this be because what was there were strange creatures such as trilobites and eurypterids that did not appear like any sea creature he recognized? The word ‘crawling’ is an apt description of life in that early age as life first crawled before fish evolved that swam.

So far, the Genesis author’s description follows closely the scenario of evolution, but critics have noted that birds did not appear on earth until the late Triassic long after animals had appeared on dry land. Birds are now believed to have evolved from Coelurosaurian (a group of Theropods) dinosaurs around 155 million years ago and their ancient ancestor is most likely the *Archaeopteryx*.

What then was it that the author saw that caused him to mention birds? A probable answer is dragon flies. No, not your modern day insects, the largest which is hardly fist size, but dragon fly like insects such as *Meganeuropis permiana* of the early Permian, with wing spans nearly three feet across. Giant winged insects that the Genesis author mistakenly took for birds or deliberately called birds fearing that his contemporaries would not believe that there were flying insects that large.

<https://ourplnt.com/top-10-largest-insects.../meganeuropis-permiana-reconstruction>

What could the author possibly be referring to when he mentions evening and morning? Morning would have been the coming of light after the end of the great ice age of 600 million years ago but what would constitute evening? About 240 million years ago nearly all life was extinguished from earth in one of the greatest of all extinction events when ninety-five percent of all life disappeared from the land and sea. Scientist speculate that it was caused by the basalt lava flows from the eruption of the Siberian traps, a

massive series of super volcanic eruptions that also spewed tens of millions of tons of ash and sulfur vapor into the stratosphere causing darkness to fall upon the earth and shutting down the food chain that sustained sea life and an end to nearly all life on earth. Thus, evening came to earth. Eventually the eruptions ceased, the skies cleared and life exploded once again.

King James Bible: Genesis 1, 24-25

24- Then God said, “Let the earth bring forth the living creature according to its kind (*various kinds of living creatures*): cattle and creeping things and beast of the earth, each according to its kind” and it was so.

25- And God made the beasts of the earth according to its kind, cattle according to its kind, and everything that creeps on the earth according to its kind... And God saw that it was good.

This mistranslation gives creationists the basis for their belief that all life forms were created in their present form and variations in species are due only to micro-evolution. Both the **Anchor Bible** and the **Torah** present a more professional translation that indicates what was written merely stated that God created many varieties of animals and does not preclude evolution.

Anchor Bible: Genesis 1, 25

25- God made various kinds of wild animals, cattle of every kind, and all the creeping things of the earth, whatever their kind. And God was pleased with what he saw.

Torah Genesis 1:25

25- God made wild beasts of every kind and cattle of every kind, and all kinds of creeping things of the earth. And God saw that this was good.

Vertebrate animal forms moved on to land about 360 million years BCE. The first were amphibians, animals that were fish like with fins that also served as feet. Mammals did not become the dominant life form on earth until after the mass extinction of the dinosaurs around 65 million years ago. The latest findings indicate that a 6-mile-wide asteroid struck the Yucatan peninsula of modern day Mexico some 65 million years ago that resulted in massive firestorms, a thousand foot high tsunami and the formation of a smoke and dust layer high in the stratosphere that blotted out the sun and caused a

shutdown of plant growth that decimated the herbivores and thus the extinction of the carnivorous dinosaurs. Others feel that the dinosaurs were already either extinct, or nearly so, because of massive volcanic activity and that the meteor strike was simply the final blow. Some small mammals survived and flourished in the absence of dinosaur predators. The evening of day five began with the asteroid impact and ends with the greatest of all events, the coming of humankind.

King James Bible: Genesis 1, 26-31

26- Then God said, “Let us make man in our (*my*) image, according to our likeness; let them have dominion over the fish of the sea, over the birds of the air, and over the cattle, over all the earth and over every creeping thing the creeps on the earth.”

27- So God created man in His own image; in the image of God He created him, male and female he created them.

28- Then God blessed them, and God said to them, “Be fruitful and multiply, fill the earth and subdue it; have dominion over the fish of the sea, over the birds of the air, and over every living thing that moves on the earth.”

29- And God said, “See, I have given you every herb that yields seed which is on the face of the earth, and every tree whose fruit yields seeds; to you it shall be for food.

30- “Also, to every beast of the earth, to every bird of the air, and to everything that creeps on the earth, in which there is life, I have given every green herb for food”, and it was so.

31- Then God saw everything that he had made, and indeed it was very good. So the evening and the morning were the sixth day.

Humankind’s roots trace all the way back to the first life forms that can be identified through fossil remains as far back as 3.8 billion years ago. However the first humanoids that walked upright appeared only about 6 to 7 million years ago in the Neocene.

The King James translation of verse 26 appears to say that there was more than one God when it uses the words “us” and “our”. The Anchor Bible corrects the translation to a single God of creation. Creationists claim that humankind were made essentially in their present form as supposedly verified by the final verses of chapter one. A careful reading of the verses does not necessarily support this view. The verses simply state that God made human-kind but gives no information on how this was done or what these early humans looked like; therefore the creationist contention is based on opinion, not on fact. It

is only in the second chapter of Genesis that science appears to deviate from the Biblical verses.

In the first chapter of Genesis the description appears to agree with the findings of modern science. The conditions during the initial stage of creation were:

- Light trapped in darkness only to be released 380,000 years later.
- Formlessness as atom could not form in the intense heat.
- A powerful wind that could be interpreted as rapid expansion of the nascent universe.
- Accretion of gases to form the first stars, their ignition and the appearance once again of light in the universe.
- Development of life in the sea and emergence of life on to land. Genesis 1:20-23.
- Creation of land animals and the creation of the humanoids. Genesis 1:24-31
- Finally creation has reached its end. Genesis 2:1-4

For a detailed description of the history of the earth and life go to:

http://en.wikipeida.org/wiki/Timeline_of_evolutionary_history_of_life

Genesis Chapter – 2

Some writers in the past have claimed that there is a conflict between the first chapter of Genesis and the second chapter in that they seem to present two different versions of creation. I don't see any conflict. The first chapter describes the creation of the universe and then the biological and geological history of the earth. The second chapter focuses exclusively on the biological history of the earth with particular emphasis on humankind.

King James Bible: Genesis 2, 1-4

- 1-Thus the heavens and the earth, and all the host of them, were finished.
- 2- And on the seventh day God ended His work which He had done, and He rested on the seventh day from all his work which He had done.
- 3- Then God blessed the seventh day and sanctified it, because in it He rested from all His work which God had created and made.
- 4- This is the history of the heavens and the earth when they were created, in the day that the Lord God made the earth and the heavens.

Genesis chapter 2, verses 1-4. Verse 3 indicates that God rested from all his work of creation. This can be interpreted that the major creation events had ended. The heavenly bodies were in place, life had been created, and no further epic events would take place. It is of interest that verse four of the second chapter of the King James Bible states “-in the day that the Lord God made the earth and heavens.” The manner in which the sentence is constructed gives the impression that the word “day” may be used in its less common usage which simply means an undefined period of time. It might be translated as “During the time that the Lord God made the earth and heavens.” See the article ‘The Six Cays of Creation’ for further discussion of time.

King James Bible Chapter 2: 5-7

- 5 - Before any plant of the field was in the earth and before any herb of the field had grown. For the Lord God had not caused it to rain on the earth and there was no man to till the ground.
- 6 - But a mist went up from the earth and watered the whole face of the ground.
- 7 - And the Lord God formed man of the dust of the ground (*from clods in the Soil according to the Anchor Bible*), and breathed into his nostrils the breath of life; and man became a living being.

In the early history of the Earth conditions were dry. It was not only asteroids and comets crashing into the earth that contributed to watering the earth, but it was also most likely volcanic eruptions that poured vast amounts of water vapor into the atmosphere and thus “flow up from the ground to water the whole surface of the soil.” Science posits that life began very early in the earth’s history and arose from primitive forms that may have formed in the interstices of montmorillonite clay. The King James says ‘dust’ but a better translation is ‘clods of soil’ suggesting clay. Science and Genesis once again agree.

What era in the history of the earth the 4th through 6th verses are describing is a mystery; however, the subsequent verse hints that it was dated to the very early era when life began. In this verse the creation of life is described as originating in a clod of earth that closely reflects modern sciences position that life may have arisen between the narrow spaces between layers of montmorillonite clay probably deep under water around thermal vents. Montmorillonite clay has a negative charge that serves to hold delicate strands of RNA in place so that it can link with others to form the basis of the first life on

earth. At first this life is referred to as “man” and later it will be called “Adam” which Speiser believes is a play on the word “Adama” or earthling, something derived from the earth but not necessarily complexed life. “--blew into his nostrils the breath of life.” appears to be the Genesis author’s way of saying that the early cellular matter became alive.

If allowance is made for the limited ability of someone from a distant age, devoid of a modern understanding of nature, then the Genesis account of creation essentially agrees with modern science. All that the objections by creationists have accomplished is nothing but a needless confrontation and a failure to recognize and accept an interpretation that validates the biblical story of creation.

Chapters 1 & 2 of Genesis were meant to describe the history of the earth and early life as a lead in to the Bible. It was not intended as a ‘science book’ and leaves out many events but does in many places agree with science. Again it must be emphasized that this may have been the result of a vision, or dream, from God but revealed by a human with a very limited knowledge of nature. With so many events described that match modern science and in the proper chronological order of occurrence it gives reason to believe that Genesis is describing evolution. The faithful can abandon creationism and accept evolution as the means that the creator used to bring about the earth and life upon it. Science, and evolution, is based on research done by scientists and documented in papers submitted for publication in scientific journals. Papers that are first go through a peer review before acceptance. In all of the papers that form the basis of science none make the claim that there is no God or need for a God in the development and evolution of life. Evolution only describes processes and is incapable of determining whether there was a God involved in the process. Any contention to the contrary is based solely on statements not backed up by evidence. True there are those in and outside of science that have taken it upon themselves to claim that evolution eliminates the need for a God; however they offer no evidence only their opinion. It is worth repeating that Jesus never mentions the creation stories of Genesis 1 & 2 as his gospel is solely about where we should be going and not where we came from.