



# Rating the Creation and the Big Bang

*By George P. Saxon*

**A**s an Adventist young person growing up, I remember the emphasis that was placed upon nature. We called nature God's second book, and studying it was exciting. I learned that the laws of physics are God's rules for the universe. I also learned that as a church we have not recognized this fact.

Because the laws of physics are God's laws, one would expect agreement between God's physical laws and God's written word. Unfortunately, there is disagreement. The difficulty in finding some agreement is really a conflict between the interpretation of what we read in the Bible and the writings of Ellen White, and the ramifications of the laws of physics. We need to look more carefully at both.

The Faith and Science Conferences held by our church are indications that our leaders take the interpretation differences seriously. This is the third year in a row that Adventist scientists, theologians, and administrators have sat together to try to examine interpretations. Will

they be able to come to a final conclusion?

In physics, physical measurements can be as precise as one chooses, but the value is never exact. For example, the value of the ratio of the circumference of a circle to its diameter ( $\pi$ ) has been calculated to 100,000 decimal places, yet this value is still only approximate. Although not exact, a calculation to three or four places is usually good enough for most of our activities. What are the chances of coming to an interpretation of creation that can work for most of our activities—be they scientific or theological?

What follows are some of my own thoughts toward this goal.





The synthesis of many of the discoveries made during the past century has led to the concept of the big bang. Given the discovery that the galaxies were all moving away from each other and that those furthest away were moving most rapidly, there had to be a time in the past when they were all much closer together. Supposedly at some time in the distant past all matter in the universe was concentrated at a single point. There followed a tremendous explosion that was the beginning of the creation of the universe. This event supposedly occurred about fifteen billion years ago.

Most physicists now accept the idea and ramifications of the big bang. The big bang explains how the elements were created, how the galaxies came into being, the cosmic background radiation, and many more details of the universe as we see it today.

Philosophically, some physicists do not like the idea of the big bang since it suggests a creation event and by extension a Creator. The big bang concept also challenges some who hold a "young" view of the creation event. Whether or not a person accepts the idea of the big bang, the laws of physics were certainly in existence before God ever said "Let there be light." Let us examine the first three verses of Genesis 1 from the King James Version:

**1:1** In the beginning God created the heaven and the earth.

**1:2** And the earth was without form and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters.

**1:3** And God said, Let there be light: and there was light.

There was a "deep." If there was a deep, then the law of gravity existed, otherwise the water would not have been contained. Water already existed. If water existed, then the law of electromagnetism existed. The electromagnetic force is the mechanism that holds the water molecule together. The fact that matter existed means that nuclear forces existed, otherwise matter could not have existed. Notice the verse says that water—not ice—existed. If liquid water existed, the atomic mechanism for light also existed.

To give an example: the excited hydrogen atom gives off ultraviolet radiation whenever an electron falls from an excited state to the ground state. Light is given off whenever the electron falls from a higher excited state to the first excited state, and heat radiation is given off when the electron falls from a higher excited state to the second excited state. The command

"Let there be light" was similar to what any of us would say when we enter a dark room: "Let's turn on the lights."

Because matter and the laws of physics existed before the creation of the earth as described in Genesis, is it possible that the event that created matter and the laws of physics could have occurred at a time much earlier than the time given for the Genesis account? This idea has been around for many years and has been known as the gap theory. According to this theory, an indeterminate amount of time elapsed between Genesis 1 verses 1 and 2.

Interpretation of these verses is important. If you accept the gap theory, then on a scale of 1–10 (1 being false and 10 being certainty) what belief rating would you give to this interpretation? If not, what is that belief rating? I personally give the gap theory a rating of about 7 or 8, but not a 10. This is not to say that God could not have done it in exactly the manner we have traditionally interpreted these events. Could God have used the big bang to create the universe? I hesitate to put any limits on what God could have done. Does the big bang matter at all to our church and to our theology? If there is difficulty here, I fail to see it.

What is your interpretation of the flood story given in Genesis? Was the story as recorded a heavenly fax given to Moses? Or was the story an interpretation by an observer that was passed down by oral tradition for a thousand years before Moses recorded it?

A literal interpretation of the flood story entails a gross violation of the laws of physics. Since the laws of physics are God's laws, the traditional interpretation causes some concern to physicists. The first question needing explanation is: Where did the water come from and what happened to it?

If the entire earth were covered with water, there would have been no place for the water to go, no place for the water to dry up. Some have argued that the amount of water on the earth has been relatively constant, but that the mountains and continents were lower then and that God just pushed the mountains and continents down to begin the flood. Later, he pushed the mountains and continents up and let the water drain into the ocean basins.

This argument poses a question concerning the source of the sedimentary rock that can now be seen.



There is also a question about the disposition of the heat that would be generated if the mountains and continents were first flattened and then raised to their present elevation. Sedimentary rocks require erosion from some source and then deposition.

Carbonate and salt deposition pose further mechanical questions for the time frame involved. A near-surface salt dome in Hockley, Texas, contains a room created by the mining of 99.9 percent pure salt—enough to contain the Astrodome. What was the source of all of that salt and how did it get there?

As for the heat generated from mountain and continent building, an approximate, back-of-the-envelope calculation indicates that the heat generated from the mountain building as well as the continued nuclear heat sources and the sun's radiation would have raised the temperature of the earth to a temperature that would have vaporized the oceans.

For all of these reasons, I give the traditional heavenly fax interpretation only about a 4 on the belief rating scale. This is not to argue that God could not have caused the flood to occur in exactly the same manner as we have traditionally interpreted the event.

Another possible interpretation involves the flooding of the Black Sea. The idea here is that several

al interpretation that I have posed above. It could also explain the abundance of marsupials in Australia and their scarcity in the rest of the world. I would give this interpretation a belief rating of about 7.

As we look at the age of the universe, the current scientific thinking places the creation of the universe at the big bang at about 15 billion years before present (ybp). The earth is probably a remnant of an exploding star and was captured by our sun about 4.3 billion ybp. Rudimentary life forms appeared about 3.3 billion ybp, and the Cambrian life explosion occurred about 558 million ybp. Another life explosion occurred at the beginning of Carboniferous time, about 365 million ybp. A third occurred during the early Cretaceous, about 140 million ybp. Domestic animals and man first appeared during recent times, about 15,000 ybp.

Can the creation story as recorded in Genesis and interpreted literally fit into this picture? My answer is: Only with a great deal of difficulty. Several attempts have been made. One explanation is that God created this planet with built-in age so it appears to be much older than it really is. Another explanation is that the

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thousand years ago the sea level was lower than it is now due to the buildup of glaciers on the continents. The Black Sea area contained a large fresh water lake much smaller than the present Black Sea. As glaciers melted and the sea level rose the ocean eventually broke through the barrier that separated the Black Sea from the Mediterranean Sea. This would have been a cataclysmic event. Water pouring through could very well have been described by an observer as the fountains of the deep breaking up. An observer on Noah's ark could well have described that event with words recorded in the Bible.

The Black Sea is about two-thirds the size of Texas, and it is easy for me to envision a situation where a large boat with no means of propulsion could have floated about for more than one year without its passengers seeing land. This interpretation would provide an explanation for the objections to the tradition-

laws of physics have changed over the years. Still a third explanation is that the creation event recorded in Genesis is only the latest and that God visited this planet several times in the past and created life and shaped the environment.

However we interpret the written record and the physical evidence, and regardless of absolute dates, the record of life on this planet goes back far before the first appearance of humans in the fossil record. To complicate matters, early human fossils do not resemble modern humans.

The built-in age explanation raises questions. Why would God deceive us by making the earth appear to be much older than it really is? Does he have some hidden agenda? This explanation is out of character





for God, and brings into question his love for us.

Could the laws of physics have changed over the years? By examining the light from stars that range in distance from a few light years away to those that are billions of light years distant we can say without doubt that the laws of physics have not changed.

Did God create life? I believe that God did and give this interpretation a belief rating of 10. Was all life created at the events described in Genesis 1 and 2? Were there previous creation events? Could the creation story given in Genesis have been the last of several occasions

position is lacking. Indeed, there is substantial evidence that death has occurred throughout the history of life on this planet.

Some argue that if we have multiple creations there is no basis for the Sabbath doctrine. As a church, we connect the basis of the Sabbath solely with the Fourth Commandment as given in Exodus 20, which cites the Genesis creation story. Why have we placed so little weight on the Fourth Commandment as stated in Deuteronomy 5, which gives a different reason to keep the Sabbath? Although this is not the subject of this

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in which God visited the earth and created life?

There are several objections to these ideas. Special creations could certainly explain the Cambrian, Carboniferous, and Cretaceous life explosions. But from the biblical description of the most recent creation we would expect to find more physical evidence, especially had it occurred during the last forty thousand years. Further complexities arise from the fact that many species first appear in the geological column at times different from the major life explosions discussed above. Where did they come from?

Special creations lead to consideration of when death first occurred. The Adventist Church has taken the position that all death is related to sin. In Romans 5:12 and 7:23, Paul argues this point. However, we discount statements in Genesis 3:22-24 about the flaming swords, in which God stated that humans could not live forever—even in sin—by eating from the Tree of Life. Why was that tree in the Garden of Eden if Adam and Eve did not need to eat from it? Ellen White writes in *Patriarchs and Prophets* that even without sin their bodies would have deteriorated had they continued to eat from it. Her implication is that death is a natural process, and that it occurs to all who do not have access to the Tree of Life.

Some Adventists object to the idea of multiple creations. They argue that without sin there is no death, and that when Adam sinned the very nature of plants and animals changed. Physical evidence to support this

article, many good arguments can also be made for the Sabbath doctrine based upon New Testament Scripture, and I believe we should do so more often than we do.

Because I believe (10 on the belief rating scale) that God created all life, it seems reasonable to me that creation occurred at several different times in the past, with the Genesis account being the most recent. However, I cannot give the idea of multiple creations a belief value of more than 6 or 7. Perhaps additional physical or geographical evidence will be found to support this theory, to which I have already added my own interpretation of the written Word.

**C**ould my analysis be the understanding that works like a measurement of pi to the third or fourth decimal place? Perhaps, but will it satisfy everyone? In my opinion, probably not at this time.

As scientists, theologians, and administrators begin deliberations again this year, will they find common ground and definitive answers to the many questions that surround creation? Time will tell. Meanwhile, we should be thankful for their efforts, show respect for those who see these issues differently, and pray for reconciliation, which is the only viable long-term solution.

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George Saxon is now retired after working for many years as a geophysicist. He also taught college students for several years and finished his employment career as a UNIX systems manager.