

CHAPTER 3

CHAPTER 3

CREATION OF THE HEAVENS AND THE EARTH

Ever since the dawn of history, the heaven has been a mystery to mankind. Only in the past three centuries, the basic foundations of the motion of the planets in our solar system have been developed. In recent years, new technology has made it possible to look deeper into the vast space, studying galaxies *, constellations **, nebulae *** and the distant stars. In spite of all the scientific and technical advances that exist today, the origin of the earth, our solar system and the rest of the universe remains a mystery. Without using the valuable information that ALLAH (SWT) Has Given in the Holy Qur'an, it will continue to be so. Several theories have been developed. As more observations are collected by the space telescope and the deep space probes, the theories are dramatically revised, corrected or even scraped in favor of new ones. In this chapter it is shown that ALLAH (SWT) Has Created both the heavens and the earth in six days (six thousand lunar years) This is contrary to the wrong belief that the lowest heaven (the universe) is much older (13.5-15Billion light years) than the earth (4.4-5Billion light years). The error made is in dating the universe using the red shift technique after being expanded for billions of years. During the expansion (which started after the creation) the galaxies have moved much farther away thus resulting in the huge overestimation of the universe age.

In the Holy Qur'an, ALLAH (SWT) Describes how He Created the heavens and the

* Groups of stars.

** Formations of fixed stars.

*** Huge clouds of gas and dust.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَوَلَمْ يَرَ

الَّذِينَ كَفَرُوا أَنَّ السَّمَوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا وَجَعَلْنَا

مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ أَفَلَا يُؤْمِنُونَ ﴿٣٠﴾

سورة الأنبياء

الجزء السابع عشر

Cited Verse #(3-1)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not the unbelievers see that the heavens and the earth were joined together in one entity, then We forcibly Disintegrated them, and We Made from water every living thing, do not they then believe ?.

(part 17, Surat Al Anbiya'a "The Prophets")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَهُوَ الَّذِي خَلَقَ السَّمَوَاتِ وَالْأَرْضَ فِي سِتَّةِ أَيَّامٍ

وَكَانَ عَرْشُهُ عَلَى الْمَاءِ لِيَبْلُوَكُمْ أَيُّكُمْ أَحْسَنُ عَمَلًا وَلَئِن قُلْتَ

إِنَّكُمْ مَبْعُوثُونَ مِنْ بَعْدِ الْمَوْتِ لَيَقُولَنَّ الَّذِينَ كَفَرُوا إِنْ هَذَا

إِلَّا سِحْرٌ مُّبِينٌ ﴿٧﴾

سورة هود

الجزء الثاني عشر

Cited Verse #(3-2)

In The Name of ALLAH, Most Gracious, Most Merciful

And it is He Who Created the heavens and the earth in six days and His Throne was on the water, to test you which of you has better deeds, and if you said that you will indeed be resurrected after the death, the unbelievers would be sure to say, "this is nothing but powerful sorcery.

(part 12, Surat Hood "The Prophet Hood")

earth. He Gave the sequence of the creation processes and their timing in a very simple manner that could be understood by the human mind. The precise definitions and description and the power and the beauty of the wording is felt when reciting the Holy Qur'an in its original language, the Arabic language. English translation of the verses of the Holy Qur'an gives only the general meaning and concept. Detailed explanations will be presented to convey to the reader the intended meanings as precisely as possible.

In cited verse #(3-1), ALLAH (SWT) is Demonstrating His might and power to the unbelievers. In this demonstration, He is Telling two very important things. The beginning of the creation of the heavens and the earth, and the main ingredient that all living creatures are made of.

THE HEAVENS AND THE EARTH, BEFORE THEIR CREATION WERE JOINED TOGETHER IN ONE ENTITY. ALLAH (SWT) THEN FORCIBLY DISINTEGRATED THEM. SUCH DISINTEGRATION STARTED THE CREATION OF THE HEAVENS AND THE EARTH. ALSO ALLAH (SWT) HAS MADE EVERY LIVING THING FROM WATER.

Since the heavens and the earth, before their creation were one entity, therefore it may be concluded that *every thing in the heavens and the earth came from the same origin.*

In one verse, cited verse #(3-1), ALLAH (SWT) Has Associated the beginning of the creation of the heavens and the earth, with the identification of water as the main substance of life. In cited verse #(3-2), ALLAH (SWT) Says that He Has Created the heavens and the earth in six days *and His Throne WAS on the water.* Using the *past tense* "WAS", indicates that *water was present before the creation of the heavens and the earth* (Recent observations support the presence of water at the beginning of creation).

The presence of water before the forcible disintegration of the primary (massive) entity that was joining the heavens and the earth, suggests that WATER MIGHT HAVE CONTRIBUTED SOMEHOW TO THE ONSET OF THIS FORCIBLE DISINTEGRATION.

For years it has been recognized that water contains the most powerful energy source (hydrogen and oxygen). Recent scientific studies have shown that unlimited energy may be extracted from water by a process called "cold fusion". However, successful realization of such techniques has not been accomplished yet.

The forcible disintegration of the massive entity must have produced fragments of all sizes as well as huge clouds of dust. The forcible disintegration also must have generated tremendous heat (radiation) that caused some of the water to break down to its elements, hydrogen and oxygen. The hydrogen and the oxygen were then incorporated with the huge clouds of dust. When hydrogen is subjected to extreme heat, reactions known as "atomic fusion" occur. The fusion process releases tremendous amount of energy in the

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الَّذِي خَلَقَ السَّمَوَاتِ
وَالْأَرْضَ وَمَا بَيْنَهُمَا فِي سِتَّةِ أَيَّامٍ ثُمَّ اسْتَوَىٰ عَلَى الْعَرْشِ الرَّحْمَنُ
فَسْئَلُ بِهِ خَبِيرًا ﴿١٩﴾

سورة الفرقان

الجزء التاسع عشر

Cited Verse #(3-3)

In The Name of ALLAH, Most Gracious, Most Merciful

Who Created the heavens and the earth and what in between them in six days then established firmly on the Throne, Most Gracious, ask thou about Him a knowledgeable.

(part 19, Surat Al Furqan “The Criterion”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

هُوَ الَّذِي خَلَقَ لَكُمْ مَا فِي الْأَرْضِ جَمِيعًا ثُمَّ اسْتَوَىٰ إِلَى السَّمَاءِ
فَسَوَّاهُنَّ سَبْعَ سَمَوَاتٍ وَهُوَ بِكُلِّ شَيْءٍ عَلِيمٌ ﴿٢١﴾

سورة البقرة

الجزء الأول

Cited Verse #(3-4)

In The Name of ALLAH, Most Gracious, Most Merciful

It is He Who Created for you all what in the earth then Proceeded to the heaven where He fashioned and perfected seven heavens, and He Has absolute knowledge of every thing.

(part 1, Surat Al Baqarah “The Heifer”)

form of heat and transforms hydrogen to helium (such process occurs in the sun, and in most of all other stars). *It has been discovered that hydrogen and helium are the most dominant gases in the universe.*

From cited verse #(3-3) we learn that ALLAH (SWT) Has Created the heavens and the earth and “*what in between them*” in six days. In this verse as well as in all other creation verses, the heavens and the earth are clearly defined by their own individual identity. That is, “*the heavens*” and “*the earth*”. This indicates that “*what in between them*” is a region which has a separate identity other than the heavens and the earth. This region, as it is called, is located between the domain of the heavens and the domain of the earth. Later on in this Chapter, we will know exactly what this region is.

In cited verses #(3-2) and #(3-3), as well as in several other verses in the Holy Qur'an, ALLAH (SWT) Says that He Has Created the heavens and the earth and what in between them in six days. During the creation process which lasted six days, the earth as well as the heavens were being created. They started to function the way they are now after the creation process has ended, that is after the six days have ended. During the six days of creation, the rotation of the earth about itself, which defines the length of the day was not fully established. This will be explained in more details later on in this Chapter. Accordingly, the six days of creation are meant to be six days in the sight of ALLAH (SWT), NOT earth days [see Appendix D]. In Chapter 2, we have learned that a day in the sight of ALLAH (SWT) is equivalent to one thousand of our lunar years. The following may then be concluded:-

THE HEAVENS, THE EARTH AND WHAT IN BETWEEN THEM WERE CREATED IN SIX THOUSAND OF OUR LUNAR YEARS, THAT IS 5825.24 OF OUR SOLAR YEARS (see Chapter 2 for the conversion between lunar and solar years).

After ALLAH (SWT) Has Created the heavens, the earth and what in between them, He Established Himself firmly on the Throne [cited verse #(3-3)]. That is, THE HOLY THRONE IS BEYOND (ABOVE) THE HEAVENS.

In cited verse #(3-4), ALLAH (SWT) Says that He Has Created every thing in the earth then Proceeded to the heaven where He Arranged and Perfected seven heavens. From this verse we learn the following two things :-

THE EARTH WAS CREATED FIRST BEFORE THE HEAVENS AND THERE ARE SEVEN HEAVENS.

Later on in this Chapter and in the next chapters we will learn more about the seven heavens. For more information see Chapter 6.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

* قُلْ أَيْنَ كُمْ لَتَكْفُرُونَ بِالَّذِي خَلَقَ الْأَرْضَ فِي يَوْمَيْنِ
وَتَجْعَلُونَ لَهُ أَنْدَادًا ذَٰلِكَ رَبُّ الْعَالَمِينَ ﴿٣﴾ وَجَعَلَ فِيهَا رَوَاسِيَ
مِن فَوْقِهَا وَبَرَكَ فِيهَا وَقَدَّرَ فِيهَا أَقْوَاتَهَا فِي أَرْبَعَةِ أَيَّامٍ سَوَاءً
لِّلسَّائِلِينَ ﴿٤﴾ ثُمَّ أَسْتَوَىٰ إِلَى السَّمَاءِ وَهِيَ دُخَانٌ فَقَالَ لَهَا وَلِلْأَرْضِ
أَنْتِيَا طَوْعًا أَوْ كَرْهًا قَالَتَا أَتَيْنَا طَائِعِينَ ﴿٥﴾ فَقَضَاهُنَّ سَبْعَ سَمَوَاتٍ
فِي يَوْمَيْنِ وَأَوْحَىٰ فِي كُلِّ سَمَاءٍ أَمْرَهَا وَزَيَّنَّا السَّمَاءَ الدُّنْيَا بِمَصَابِيحَ
وَحِفْظًا ذَٰلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ ﴿١٢﴾

سورة فصلت

الجزء الرابع والعشرون

Cited Verses #(3-5)

In The Name of ALLAH, Most Gracious, Most Merciful

Say, is it that you deny Him Who Created the earth in two days and do you make equals to Him, He is The LORD of all worlds. And He Made solid foundations on top of it, and Bestowed blessings on it and established in it all its resources in four days in accordance with the needs of those who seek sustenance. He then Proceeded to the heaven while it had been smoke, and Said to it and to the earth, “come willingly or unwillingly”, they said, “we do come in willing obedience”. He then Arranged them seven heavens in two days, and He Assigned to each heaven its function and command, and We Adorned the lowest heaven with lamps (illuminators) and for security, this is the design of The Exalted in might the full of knowledge.

(part 24, Surat Fusselat “Detailed”)

THE SEQUENCE AND THE TIME TABLE FOR THE CREATION OF THE HEAVENS AND THE EARTH

The detailed sequence and the timetable for the creation of the heavens and the earth are presented in cited verses #(3-5). In just these few phrases, ALLAH (SWT) Gives information that mankind with all accumulated scientific and technological knowledge would never be able to discover. As explained in Chapter 2 the day in these creation verses is equivalent to one thousand of our lunar years, that is 970.87 of our solar years. The creation sequence and timetable may conveniently be presented as follows:-

- ◆ ALLAH (SWT) Created the earth in TWO DAYS (two thousand lunar years).
- ◆ ALLAH (SWT) Made solid foundations on top of the earth, Bestowed blessings on it and Established in it all its resources in FOUR DAYS (four thousand lunar years).
- ◆ ALLAH (SWT) Proceeded to the heaven while it was smoke and commanded it and the earth to follow His rules.
- ◆ ALLAH (SWT) Formed and Arranged seven heavens, and Assigned in each heaven its function and commands in TWO DAYS (two thousand lunar years).
- ◆ ALLAH (SWT) Adorned the lowest heaven with lamps (illuminators) and for security.

In these concise verses, ALLAH (SWT) Has Given us a wealth of information and several clues and pointers to help us understand the general aspects of the creation of the heavens and the earth. In these verses He Has Given us a very important piece of information about the construction of the earth. THE SOLID FOUNDATIONS ON TOP OF THE EARTH, WHILE IT MAY BE CONSIDERED A PART OF THE EARTH, IT IS NOT AN INTEGRAL PART OF THE EARTH. THIS MEANS THAT THE SOLID FOUNDATIONS ARE NOT RIGIDLY FIXED TO THE EARTH BENEATH IT. ALSO WE LEARN FROM THESE VERSES THAT ALL EARTH RESOURCES ARE LOCATED WITHIN THE SOLID FOUNDATIONS AND ABOVE. More details about the earth's construction are presented in Chapter 7. It will be shown that part of this valuable information has been discovered only in the 1960's.

Another very important piece of information is given in these verses. After the creation of the earth, THE HEAVEN WAS JUST ONE HEAVEN AND IT WAS ALL SMOKE. It is known that smoke is produced only by heat or as a result of fire. This indicates two things. The forcible disintegration of the entity that produced the heavens and the earth also *produced tremendous amount of heat.* The creation of the earth, then the creation of the heavens *started immediately after the forcible disintegration occurred,*

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَلَمْ تَرَوْا كَيْفَ خَلَقَ اللَّهُ سَبْعَ

سَمَوَاتٍ طِبَاقًا ﴿١٥﴾ وَجَعَلَ الْقَمَرَ فِيهِنَّ نُورًا وَجَعَلَ الشَّمْسُ سِرَاجًا ﴿١٦﴾

سورة نوح

الجزء التاسع والعشرون

Cited Verses #(3-6)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not you see how ALLAH Has Created seven heavens one above the other. And Made the moon a light in them and Made the sun a glorious light source.

(part 29, Surat Nooh “Noah”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَلَقَدْ خَلَقْنَا فَوْقَكُمْ

سَبْعَ طَرَائِقَ وَمَا كُنَّا عَنِ الْخَلْقِ غَافِلِينَ ﴿١٧﴾

سورة المؤمنون

الجزء الثامن عشر

Cited Verse #(3-7)

In The Name of ALLAH, Most Gracious, Most Merciful

And We Have Created above you seven layers and We Have not been unmindful of the creation.

(part 18, Surat Al Mo'menoon “The Believers”)

that is, there was no time delay between the onset of the forcible disintegration of the primary entity and the creation of the earth then the heavens.

In cited verses #(3-5), adding the mentioned days for the creation of the earth and the heavens, we find them EIGHT days. In all the verses in the Holy Qur'an that mention the creation of the heavens and the earth, such as cited verse #(3-2), cited verse #(3-3) and all the others, ALLAH (SWT) Says that He Has Created the heavens and the earth in six days not eight days. In fact cited verses #(3-5) are the only ones in the Holy Qur'an

where ALLAH (SWT) Gave the sequence, the details and the timetable for the creation of the heavens and the earth. This is another pointer to us in order to study ALLAH's words carefully.

From the first verse of cited verses #(3-5), it is clear that the inner part of the earth was created in the first two days of creation. The Arabic letter "wa" that came three times in the second verse means "and". It is also clear that the events of making the solid foundations on top of the earth and the laying of its resources into it occurred in the next four days. In the beginning of the third verse, the Arabic word "thumma" is related to the first verse (creation of the inner part of the earth). The Arabic word "thumma" means "after that", NOT "immediately after". That is after ALLAH (SWT) Has Created the inner part of the earth and while He was Making its solid foundations and Laying in it its resources, He Proceeded to the heaven while it had been smoke. At that time He Ordered the heaven and the earth "*to come willingly or unwillingly*" and Arranged seven heavens out of the one heaven that was smoke. That Holy order from ALLAH (SWT) to the earth (which was in its final stages of creation) and to the heaven (which was about to be arranged into seven heavens) was to adapt their physical laws so they can perform in conjunction with each other. For instance, the earth cannot perform in the way assigned to it by ALLAH (SWT) without the existence of our solar system (our sun, our moon, and the planets and their moons in our solar system). The dynamics of our solar system are interconnected to those of the billions of stars (about two hundred billion) in our galaxy (the Milky Way). Similarly our galaxy is interacting with the other billions of galaxies (all in the lowest heaven). The following may therefore be concluded:-

CREATION OF THE HEAVENS OCCURRED SIMULTANEOUSLY WITH THE FINAL STAGES OF THE CREATION OF THE EARTH. THE TWO DAYS OF CREATION OF THE SEVEN HEAVENS WERE THE LAST OF THE SIX DAYS OF CREATION SINCE THE ADORATION OF THE LOWEST HEAVEN WITH ILLUMINATORS (STARS) WAS THE LAST EVENT OF CREATION.

To make it clear and easy to understand, Figure (3-1) illustrates a symbolic time line for the creation of the earth and the seven heavens.

In the last verse of cited verses #(3-5), ALLAH (SWT) Says, "... and We Have Adorned the lowest heaven with lamps (illuminators) and for security, ...". In the Holy Qur'an ALLAH (SWT) is Talking to mankind. Therefore, the lamps (illuminators) that adorn the lowest heaven must be visible from the earth. As we all know, the illuminators that make the night sky so beautiful are the stars. In fact, when we look at the sky, we are looking at the lowest heaven. This verse gives us three pieces of information.

First, ALL THE STARS THAT WE CAN SEE AND OBSERVE NOW AND IN THE FUTURE WITH MORE SOPHISTICATED EQUIPMENT ARE IN THE LOWEST HEAVEN. WHAT WE CALL THE UNIVERSE, IS JUST THE LOWEST HEAVEN OR A PART OF IT.

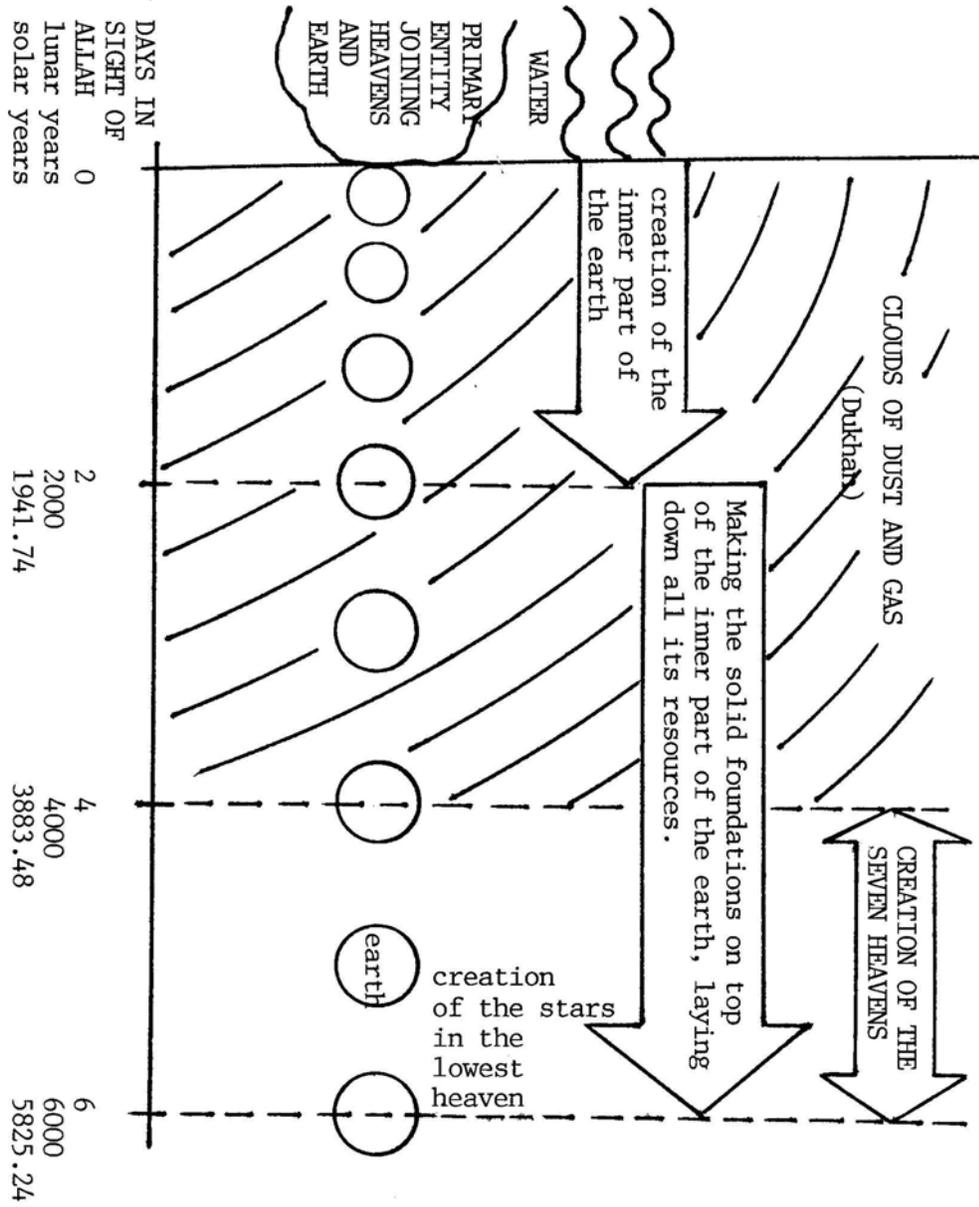


Figure (3-1) Symbolic timeline for the creation of the earth and the seven heavens.

Second, the word “lamps” or “illuminators” is used to describe the stars. Lamps or illuminators emit light due to fire or heat. In these few words, ALLAH (SWT) Gave us the definition of a star. The star is a celestial object that emits light due to extreme heat generated within. Generation of the tremendous amount of heat within the star could not be achieved unless the star is formed of gas. Earlier in this chapter we have learned that water existed before the creation of the earth and the heavens. Creation of the heavens and the earth began when ALLAH (SWT) forcibly disintegrated a massive entity. Such disintegration produced tremendous amount of heat (radiation), solid fragments and huge clouds of dust. The heat caused the water to be transformed to its gaseous elements, hydrogen and oxygen. The produced hydrogen and oxygen mixed with the clouds of dust. The forcible disintegration resulted also in the formation of giant eddies and turbulence within these clouds. The extreme heat produced by the forcible disintegration caused the hydrogen atoms to go through a process known as “*atomic fusion*”. The fusion process transforms the hydrogen to helium and releases tremendous energy in the form of heat. The stars are believed to be formed from the swirling motion of the hydrogen concentrated clouds and the triggering of the fusion process.

The third piece of information that we learn from the last verse of cited verses #(3-5) comes from the word ‘*security*’. ALLAH (SWT) is Telling us that He Has Created the stars, not only to make the lowest heaven look beautiful, but also for securing it. The lowest heaven is a domain. Securing a domain implies two things. Keeping intruders out of the domain, and to keep things within the domain in order. Later on in this chapter [Section: Formation of the stars] we will talk about the first task of securing the lowest heaven, that is keeping the intruders out. Now let’s talk about the other task of securing the lowest heaven, that is keeping things within in order.

It is known that the two major forces that control the dynamics of the universe (the lowest heaven) are the gravitational force and the electromagnetic force. The gravitational force controls the motion of matter (mass). The electromagnetic force controls the transfer of energy, as well as the motion of electrically charged particles. The stars, due to their ultra-high temperatures generate powerful electromagnetic waves. Therefore, the stars are producers of both gravitational and electromagnetic forces. The non-illuminating bodies, such as the planets produce gravitational forces only. In that respect, the stars have more pronounced effect on the dynamics of the celestial objects than the non-illuminating bodies (planets, moons, asteroids). The trillions and trillions of stars and other celestial objects in the universe (the lowest heaven) are in continuous motions. Their motions are controlled and kept in orderly manner by both the gravitational and the electromagnetic forces. Therefore, the forces produced by the stars ensure the continuation of the orderly behavior of the lowest heaven, that is keeping the lowest heaven secured as mentioned in cited verses #(3-5).

In cited verse #(3-6), ALLAH (SWT) Says that He Has Created seven heavens, one on top of the other. In cited verse #(3-7), ALLAH (SWT) Says that He Has Created above us seven layers. From these two verses we learn that the seven heavens are defined

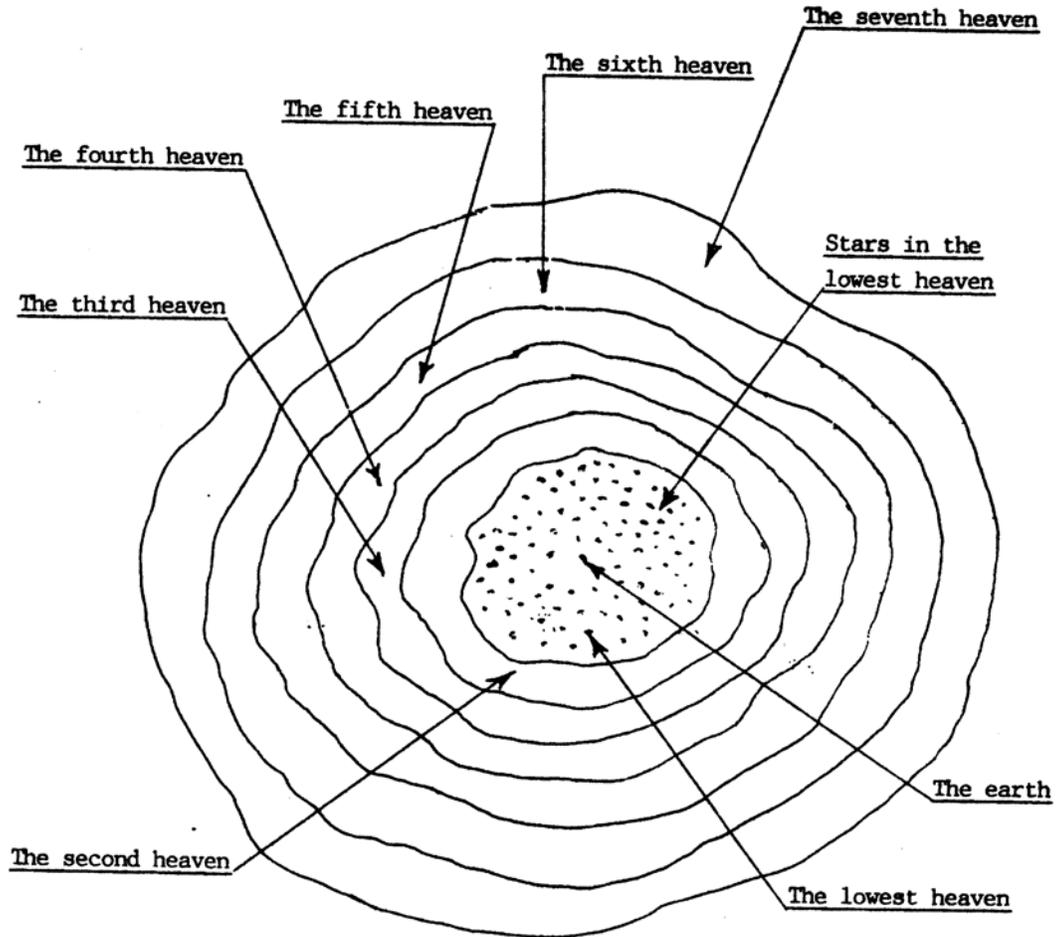


Figure (3-2) Symbolic illustration of the layers of the seven heavens

territories, each has its own identity. Since ALLAH (SWT) Has Created the earth first then the heavens, therefore the first heaven is the lowest heaven. The lowest heaven surrounds the earth from all directions. That is, the lowest heaven is a huge enclosure containing all the stars and the celestial bodies that surround the earth. The second heaven is a bigger enclosure containing its own territory and surrounding the lowest heaven. The same for the third heaven and so on, up to the seventh heaven. Figure (3-2) is a symbolic illustration of the layers of the seven heavens.

Astronomers and astrophysicists estimate that the size of the universe (the lowest heaven) is about 15 billion light years. One light year is the distance traveled by an object moving with the speed of light for the period of one year. The speed of light is 186,282 miles per second. Therefore, one light year covers the distance of 5,874,589,152,000 miles. Accordingly the estimated size of the lowest heaven is beyond any imagination.

In the Holy Qur'an, whenever the moon and the sun are mentioned, they are mentioned in their definitive and singular forms, that is "*the moon*" and "*the sun*". In the Holy Qur'an, ALLAH (SWT) is Talking to us, mankind and we live on the earth. Therefore, the moon and the sun are those related to the earth. In cited verse #(3-6), ALLAH (SWT) Says that He Has Made *in them* (the heavens) the moon as a light and the sun as a bright light source. Notice here and in all other verses mentioning the moon and the sun that there is a distinction between the description of the light emitted from the moon and that emitted from the sun. As we have learned earlier, the lowest heaven extends beyond the farthest star and is enclosed by the remaining six heavens. Since the lowest heaven is the inner most one, Fig. (3-2), therefore whatever in the lowest heaven is also in the upper heavens. Cited verse #(3-6) asserts this fact.

Going back to cited verses #(3-5), we find that ALLAH (SWT) Has Created the earth, Made on top of it its solid foundations then He Created the seven heavens. This indicates that any celestial object other than the earth is within the domain of the lowest heaven.

It may be concluded that OUR SUN, OUR MOON AND ALL THE PLANETS AND THEIR MOONS IN OUR SOLAR SYSTEM ARE WITHIN THE DOMAIN OF THE LOWEST HEAVEN.

THE "WHAT IN BETWEEN" THE HEAVENS AND THE EARTH

Now we come to the "*what in between*" the heavens and the earth [cited verse #(3-3)]. The closest celestial body to the earth is our moon. As was established above, the moon is in the domain of the lowest heaven. From cited verses #(3-5), we have learned that the earth is formed of two major parts, an inner part and solid foundations on top of it. More information about the inner part will be presented in Chapter 7. Any thing between the moon and the earth's surface would be the "*what in between the heavens and the earth*". Cited verses #(3-9) and #(3-10), tell us exactly, what is in between the heavens and the earth. Starting first with cited verse #(3-10). In the last part of cited verse #(3-10), ALLAH (SWT) Says "... and in the management of the winds and the clouds that are confined to function between the heaven and the earth, indeed are signs for people who are wise". Both the winds and the clouds are properties of the earth's atmosphere. Moreover, the earth's atmosphere is the only medium that exists between the earth's surface and the moon. The earth's atmosphere is a thin layer of air surrounding the earth's surface. It is composed mainly of oxygen and nitrogen. Without the earth's atmosphere, there would be no life on earth. The earth's atmosphere is not only vital for sustaining life on earth, but also it acts as a shield to protect the creatures inhabiting the

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قُلْ مَنْ رَبُّ السَّمَوَاتِ

السَّبْعِ وَرَبُّ الْعَرْشِ الْعَظِيمِ ﴿٨٦﴾ سَيَقُولُونَ لِلَّهِ قُلْ أَفَلَا تَتَّقُونَ ﴿٨٧﴾

الجزء الثامن عشر سورة المؤمنون

Cited Verses # (3-8)

In The Name of ALLAH, Most Gracious, Most Merciful

Say, Who is The LORD of the seven heavens and The LORD of the Great Throne. They will say, “they belong to ALLAH”, say, “will you not be filled with awe”.

(part 18, Surat Al Mo'menoon “The Believers”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَلَمْ يَرَوْا إِلَى الطَّيْرِ

مُسَخَّرَاتٍ فِي جَوِّ السَّمَاءِ مَا يُمْسِكُهُنَّ إِلَّا اللَّهُ إِنَّ فِي ذَلِكَ لَآيَاتٍ

لِقَوْمٍ يُؤْمِنُونَ ﴿٧٩﴾

الجزء الرابع عشر سورة النحل

Cited Verse # (3-9)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not they look at the birds, held poised in the heaven’s atmosphere, nothing hold them up but ALLAH, verily in this are signs for those who believe.

(part 14, Surat Al Nahl “The Bees”)

earth. The earth's atmosphere protects all forms of life on the earth from the harmful cosmic rays and from the falling meteoroids. The earth's atmosphere is not a part of the earth. It is kept attached to the earth by the earth's gravitational force. Therefore, the following is concluded:-

THE EARTH'S ATMOSPHERE IS THE "WHAT IN BETWEEN" THE HEAVENS AND THE EARTH.

The word "*creation*" means the making of something that did not exist before. On the other hand, the word "*evolution*" means that there is something existing and is changing with time to suit certain conditions. ALLAH (SWT) Has Created the heavens, the earth and what in between them in six days, cited verse #(3-3). Therefore, like the heavens and the earth, the earth's atmosphere was created during the creation of the heavens and the earth. This fact dismisses the unproven theories stating that the earth's atmosphere evolved after the creation of the heavens and the earth. Going back to cited verses #(3-5), the following may be concluded:-

THE EARTH'S ATMOSPHERE WAS CREATED IN THE LAST TWO DAYS OF THE CREATION OF THE EARTH, THAT IS DURING THE CREATION OF THE HEAVENS.

In cited verse #(3-3) and cited verses #(3-5), the creation of the earth and the "what in between the heavens and the earth" (the earth's atmosphere) are differentiated from the creation of the heavens. Moreover, the earth, whose size is negligible in comparison to the lowest heaven, with its unimaginable size, was created in six days, while all the seven heavens were created in two days.

In cited verse #(3-9), ALLAH (SWT) Says that the birds are held poised in *the heaven's atmosphere*. The birds in this verse are those which we see flying in the earth's atmosphere. That is, the earth's atmosphere is presented as the heaven's atmosphere. It is known that each planet in our solar system has its own atmosphere. Other planets that may exist beyond our solar system (later on in this chapter), may also have their own atmospheres. Specifying that the earth's atmosphere is *the heaven's atmosphere* (in a singular form) indicates that the earth's atmosphere has special qualities and characteristics that are different from the atmospheres of all the planets in our solar system and beyond. It is one of a kind. Since the atmosphere is a separate entity located between the earth's surface and the lowest heaven, therefore it may be associated either with the earth or with the heaven. Based on the above argument the only logical conclusion would be as follows:-

THE EARTH AND ITS ATMOSPHERE HAVE UNIQUE QUALITIES AND CHARACTERISTICS THAT ARE NOT DUPLICATED ANYWHERE IN THE HEAVENS. THAT IS, IN THE UNIVERSE (THE LOWEST HEAVEN), THERE IS NOTHING IDENTICAL TO THE EARTH AND ITS ATMOSPHERE.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

إِنَّ فِي خَلْقِ السَّمَوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ
وَالنَّهَارِ وَالْفُلُكِ الَّتِي تَجْرِي فِي الْبَحْرِ يَسِّرًا يَنْفَعُ النَّاسَ وَمَا أَنْزَلَ اللَّهُ مِنْ
السَّمَاءِ مِنْ مَّاءٍ فَأَحْيَا بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا وَبَثَّ فِيهَا مِنْ كُلِّ دَابَّةٍ
وَتَصْرِيْفِ الرِّيْحِ وَالسَّحَابِ الْمُسَخَّرِ بَيْنَ السَّمَاءِ وَالْأَرْضِ لَآيَاتٍ
لِقَوْمٍ يَعْقِلُونَ ﴿١٦٤﴾

سورة البقرة

الجزء الثاني

Cited Verse #(3-10)

In The Name of ALLAH, Most Gracious, Most Merciful

Behold! In the creation of the heavens and the earth and in the alteration of the night and the day and the ships that sail through the sea for the benefit of the people and the rain which ALLAH Sends down from the heaven that brought life to the earth after its death and scattered in it animals of all kinds, and the management of the winds and the clouds that are confined to function between the heaven and the earth, indeed are signs for the people who are wise.

(part 2, Surat Al Baqarah “The Heifer”)

Also in cited verse #(3-9), ALLAH (SWT) Says that nothing holds the birds up in the atmosphere but Him. This means that ALLAH (SWT) Has Created the atmosphere with certain qualities that allow heavier bodies to fly through it high above the ground without falling due to the earth’s gravity. These qualities are mainly the atmospheric pressure and the atmospheric density.

It was concluded earlier that our sun and our moon are within the domain of the lowest heaven. They were created among all other celestial objects in the heaven/s. This indicates that our sun and our moon are not unique. Similar suns and moons may exist elsewhere in the lowest heaven (the universe).

RAISING THE HEAVENS

An object is raised above another reference object by placing it at a higher elevation. If the reference object is the earth, therefore the raised object must be supported by a force to counteract the earth's gravitational force. Raising a stationary structure above the earth's surface requires pillars to support it against the earth's gravity. The man-made earth's satellites are kept in their orbits by moving with very high speeds. Such speeds develop "*centrifugal force*" that counteracts the earth's gravitational force. The same principle applies to the moon in its motion around the earth as well as the motions of all celestial objects relative to each other.

In the first part of cited verse #(3-11), ALLAH (SWT) Says that He Has Raised the heavens [plural, that is the seven heavens] without pillars that we can see. An object is raised only if it is made of solid material. From cited verses #(3-6) and #(3-7) we have learned that the seven heavens are huge enclosures each one surrounding the ones beneath it. From cited verses #(3-5), we have also learned that after ALLAH (SWT) Has Created the earth, He Arranged the seven heavens and Assigned in each its functions and commands, then He Adorned the lowest heaven with lamps (the stars). Three pieces of information may be extracted from these verses, (i) the stars are located within the lowest heaven only, (ii) each heaven has its domain and boundary and (iii) the earth is located in the innermost part of the lowest heaven. Unlike the celestial objects that move within the lowest heaven, the boundaries of the heavens (the boundaries of the enclosures) are stationary structures. Since the earth is located in the inner most part of the lowest heaven's enclosure, therefore all the heavens are raised above the earth. On our human scale and based on the physical laws created by ALLAH (SWT), an enclosure with solid boundary (like an empty ball made of metal, plastic, wood, etc.) may be constructed without the need of inside pillars. From cited verse #(3-11), it may be concluded that the boundaries of the heavens are constructed from solid material [the explanation of how the lowest heaven (the universe) is expanding while maintaining the structural integrity of its boundary is presented in Chapters 5 and 6].

In cited verses #(3-12), ALLAH (SWT) Says that He Has Raised the heaven (singular) and Set the scale. The heaven in its singular form is meant to be the lowest heaven (the universe). The earth as well as all the celestial objects within the lowest heaven are in continuous motions along precise trajectories. Each celestial object has its own gravitational force. The outer perimeter of the lowest heaven may also have its own gravitational force [Chapter 6]. ALLAH (SWT) Has Set the scale means that He Has Created the physical laws needed to govern and to maintain the dynamic stability of the lowest heaven by keeping all these forces balanced [See CH. 7, Section: The Holy verses explain the unexplained]. In the second of cited verses #(3-12), ALLAH (SWT) is Telling us that we have to balance all our actions in order to be compatible with all His creation.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

اللَّهُ الَّذِي رَفَعَ السَّمَوَاتِ بِغَيْرِ
 عَمَدٍ تَرَوْنَهَا ثُمَّ أَسْتَوَىٰ عَلَى الْعَرْشِ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ كُلٌّ
 يَجْرِي لِأَجَلٍ مُّسَمًّى يُدَبِّرُ الْأَمْرَ يُفَصِّلُ الْآيَاتِ لَعَلَّكُمْ بِلِقَاءِ رَبِّكُمْ
 تُوقِنُونَ ﴿١٠﴾

سورة الرعد

الجزء الثالث عشر

Cited Verse # (3-11)

In The Name of ALLAH, Most Gracious, Most Merciful

ALLAH is He Who Raised the heavens without pillars that you see, then firmly established on The Throne, He Has Subjected the sun and the moon, each running for an appointed term, Regulates all affairs, Explains the signs in detail, that you may certainly believe in meeting with your LORD.

(part 13, Surat Al Ra'ad "The Thunder")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَالسَّمَاءِ

رَفَعَهَا وَوَضَعَ الْمِيزَانَ ﴿٧﴾ أَلَّا تَطْغَوْا فِي الْمِيزَانِ ﴿٨﴾

سورة الرحمن

الجزء السابع والعشرون

Cited Verses # (3-12)

In The Name of ALLAH, Most Gracious, Most Merciful

And the heaven He Raised and set the scale (the balance). That you do not transgress the scale (the balance).

(part 27, Surat Al Rahman "Most Gracious")

In cited verse #(3-14), ALLAH (SWT) Says that He is Holding the heaven (singular) from falling on the earth. This means that ALLAH (SWT) is continuously Providing the necessary forces to maintain the structural integrity of the perimeter of the lowest heaven so it does not fall on the earth. If He Wishes, He Could remove these forces and then the structure forming the outer perimeter of the lowest heaven would collapse [See CH. 7, Section: The Holy verses explain the unexplained]. In such case, the resulting fragments would fall inwards towards the earth. There are trillions and trillions of celestial objects within the enclosure of the lowest heaven each has its own gravitational force. These celestial objects would attract most of the fragments directed towards the earth. But in cited verse #(3-14), ALLAH (SWT) Says that He Holds the heaven from falling on the earth. That is, if ALLAH (SWT) Wishes to Cause the heaven to collapse, most of the fragments from the collapsed heaven would fall on the earth. This could happen if the gravitational force of the earth were greater than the gravitational forces of the celestial objects, which is not the case. Therefore, there must be other factor that produces such behavior. In fact, ALLAH (SWT) Has Given us a clue in cited verses #(3-11) and #(3-12). In both verses ALLAH (SWT) Says that He Has Raised the heaven/s. That is He Raised the heavens to a higher level (altitude) relative to the earth. Due to the gravity of the earth or any other celestial object, there is a form of energy called “*Potential Energy*”. This energy is associated with the elevation of an object above a certain reference level. Unless held, all objects drop to the level where the potential energy is the least. The potential energy may be considered a “*local*” energy, in the sense that any object raised above the surface of a celestial object has a potential energy related to this particular celestial object. Based on cited verses #(3-11), #(3-12) and #(3-14), the following may be concluded:-

THERE MAY BE A “*UNIVERSAL POTENTIAL ENERGY*” WHERE THE EARTH IS THE REFERENCE LEVEL. THAT IS THE EARTH LEVEL HAS THE LEAST POTENTIAL ENERGY IN THE LOWEST HEAVEN (THE UNIVERSE).

In cited verse #(3-13), ALLAH (SWT) is Warning the unbelievers by Saying “... or Cause a big chunk of stone to fall on them from the heaven ...”. In this verse ALLAH (SWT) is Talking about a different phenomenon of His creation. There are many asteroids [chunks of stone that vary in size, from several feet to several miles] moving along trajectories with very high speeds [thousands of asteroids form the so called asteroid belt between the orbits of Mars and Jupiter] close to the earth’s orbit around the sun. Also there are several comets [huge pieces of stone and ice, some move in orbits around the sun and some come from beyond our solar system] that come periodically in proximity of the earth, moving with tremendous speeds. The motions of the asteroids and of the comets are governed by the physical laws of planetary motion, created by ALLAH (SWT). With the proper speed and distance of an object relative to a planet, the object may “*fly by*” the planet, move in an orbit around the planet, or fall onto the planet. ALLAH (SWT) Controls everything. If He Wishes, He Could Alter the speed and the distance of an asteroid or a comet and Cause it to fall on the earth.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَفَلَمْ يَرَوْا إِلَى مَا بَيْنَ أَيْدِيهِمْ وَمَا خَلْفَهُمْ مِّنَ السَّمَاءِ
وَالْأَرْضِ إِن نَّشَاءُ نَحْطِفُ بِهِمُ الْأَرْضَ أَوْ نُسْقِطُ عَلَيْهِمْ كِسْفًا مِّنَ السَّمَاءِ
إِنَّ فِي ذَلِكَ لَآيَةً لِّكُلِّ عَبْدٍ مُنِيبٍ ﴿١٣﴾

الجزء الثاني والعشرون سورة سبأ

Cited Verse # (3-13)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not they see what is before them and what is behind them of the heaven and the earth, if We Wished, We Could Cause the earth to swallow them up, or cause a big chunk of stone to fall on them from the heaven, verily in that is a sign for every slave (devotee) who turns to ALLAH in repentance.

(part 22, Surat Saba'a "Sheba")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَلَمْ تَرَ أَنَّ اللَّهَ سَخَّرَ لَكُمْ مَّا فِي الْأَرْضِ
وَأَلْفُلِكَ تَجْرِي فِي الْبَحْرِ بِأَمْرِهِ وَيُمْسِكُ السَّمَاءَ أَنْ تَقَعَ عَلَى الْأَرْضِ
إِلَّا بِإِذْنِهِ إِنَّ اللَّهَ بِالنَّاسِ لَرَءُوفٌ رَّحِيمٌ ﴿١٥﴾

الجزء السابع عشر سورة الحج

Cited Verse # (3-14)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not you see that ALLAH Has yielded to you what is in the earth, and the ships that sail through the sea by His command, and Holds the heaven from falling on the earth except by His permission, for ALLAH is most kind, most merciful to the people.

(part 17, Surat Al Hajj "The Pilgrimage")

THE SHAPE OF THE EARTH

The shape of the earth, its motions and even its structure are presented in the Holy Qur'an in a very simple way that could be understood by most of the people. Part of this information was discovered about six centuries ago, part was discovered in the 1960's and part is yet to be discovered. The Holy Qur'an was revealed to Prophet Mohammad (ppbuh) about fourteen centuries ago.

In cited verse #(3-15), ALLAH (SWT) Says that He Merges the night into the day and Merges the day into the night. Merging the night into the day means that the day's light crawls slowly over the darkness of the night, until the darkness vanishes and the day's light takes over. Merging the day into the night is the opposite process, where the day's light is slowly dimmed until it completely vanishes and the night takes over. In this verse ALLAH (SWT) is Reminding us that He Has Created this phenomenon, which we experience every day. This phenomenon could never happen unless there is a specific cyclic action. This cyclic action is either the spinning of the earth around itself in front of the light source (the sun), or the motion of the light source (the sun) around a non-spinning earth.

In cited verses #(3-16) ALLAH (SWT) is Telling us that there is a significant difference between the motion of the sun and the motion of the moon. In the second verse ALLAH (SWT) is Telling that the moon moves along a trajectory with repetitive and specific stages. This kind of motion could not occur unless the trajectory along which the moon moves is *closed*. That is, the moon moves along an orbit where it always comes back to the same location relative to the earth after running through the different stages. In the first verse ALLAH (SWT) Says that the sun is running to where it will settle down. That is, it does not return to the same location again (its motion is of non-repetitive nature). This could only happen either if it is running along (i) an open trajectory, (ii) a huge spiral trajectory, or (iii) a huge closed trajectory (where it will settle down before reaching the starting point, i.e. before completing one orbital revolution). At the end of the third verse ALLAH (SWT) Says, “ ... and each (the sun and the moon) is swimming (floating) along its orbit”. *From this it is seen that the sun is moving along either a spiral trajectory or a closed trajectory. If the sun is moving along a closed trajectory, it will cease to function somewhere before reaching the starting point.* More about this amazing phenomenon is presented in Chapter 7. Based on the above argument, it is clear that the cyclic action of merging the night into the day and merging the day into the night is produced by the spinning of the earth around itself in front of the light source (the sun).

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 أَلَمْ تَرَ أَنَّ اللَّهَ يُوَلِّجُ اللَّيْلَ فِي النَّهَارِ وَيُوَلِّجُ
 النَّهَارَ فِي اللَّيْلِ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ كُلٌّ يَجْرِي إِلَىٰ أَجَلٍ مُّسَمًّى وَأَنَّ
 اللَّهَ بِمَا تَعْمَلُونَ خَبِيرٌ ﴿٢٩﴾

الجزء الحادى والعشرون سورة لقمان

Cited Verse #(3-15)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not you see that ALLAH Merges the night into the day and Merges the day into the night, and Has Subjected the sun and the moon, each running for an appointed term, for ALLAH Has complete knowledge of what you do.

(part 21, Surat Luqmaan “Luqmaan”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 وَالشَّمْسُ
 تَجْرِي لِمُسْتَقَرٍّ لَهَا ذَٰلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ ﴿٣٨﴾ وَالْقَمَرَ قَدَرْنَاهُ
 مَنَازِلَ حَتَّىٰ عَادَ كَالْعُرْجُونِ الْقَدِيمِ ﴿٣٩﴾ لَا الشَّمْسُ يَنْبَغِي لَهَا أَنْ
 تُدْرِكَ الْقَمَرَ وَلَا اللَّيْلُ سَابِقُ النَّهَارِ وَكُلٌّ فِي فَلَكٍ يَسْبَحُونَ ﴿٤٠﴾

الجزء الثالث والعشرون سورة يس

Cited Verses #(3-16)

In The Name of ALLAH, Most Gracious, Most Merciful

And the sun runs to where it will settle down, that is the arrangement of the Exalted in might. And the moon We Have arranged for it repetitive stages. The sun is not permitted to catch up with the moon, nor the night is preceding the day, and each is swimming along its orbit.

(part 23, Surat Yaaseen “Yaaseen”)

In the third verse of cited verses #(3-16), ALLAH (SWT) Says, "... nor the night is preceding the day ... ". Since the night is not preceding the day, therefore, both of them must occur simultaneously (at the same time). Half of the earth's surface facing the sun is day and the other half on the other side is night.

In cited verse #(3-17), ALLAH (SWT) Says that the wrapping of the night over the day and the wrapping of the day over the night, both occur in the shape of a ball, that is in "spherical form".

In cited verse #(3-18), ALLAH (SWT) Says, "And you see the mountains, you think they are stand still, though they pass by as the clouds pass by ...". For an object to pass by, it has to be moving relative to an observer. On the earth, we see the clouds passing by because there is a relative motion between the clouds and the earth's surface. We know that the mountains are an integral part of the earth's surface (the crust). They do not move relative to the surface of the earth. Therefore, if the mountains are moving, so is the earth as a whole. In this verse there is an analogy between the motion of the clouds and the motion of the mountains. The clouds move around the earth's surface in the form of a rotational motion, which is primarily induced by the spinning motion of the earth.

From cited verse #(3-15), cited verses #(3-16), cited verse #(3-17), and cited verse #(3-18), it is seen that the earth goes through the following events :-

- ◆ Merging of the day and the night, [cited verse #(3-15)].
- ◆ The simultaneous occurrence of the night and the day, [cited verses #(3-16)].
- ◆ Wrapping the night over the day and the day over the night, [cited verse #(3-17)].
- ◆ The passing by of the mountains and the similarity of their motion to the clouds, [cited verse #(3-18)].

For these events to occur regularly and uniformly, the shape of the earth must be spherical or pseudo-spherical, the earth must be spinning in front of the sun and its spinning axis must be inclined by an angle to the earth's orbital plane (the plane containing the center of the earth and the center of the sun). More about the motions of the sun and the moon is presented later on in this chapter.

In cited verses #(3-19), ALLAH (SWT) Has given us more detailed information about the shape of the earth and how it came to be that way. In these few verses, ALLAH (SWT) Explains the creation events that took place in order for the earth to be in its final form. Before analyzing these verses, we have to clarify one very important situation. In some verses of the Holy Qur'an, ALLAH (SWT) Talks about the heavens (as a plural), that is the seven heavens, and in some other verses He Talks about the heaven (as a singular). For us humans, we can only see and observe part of the lowest heaven (the universe). Therefore, it is logical that whenever ALLAH (SWT) Mentions the heaven (as singular), it is meant to be the lowest heaven. The universe is just a part of the lowest heaven.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

خَلَقَ السَّمَوَاتِ وَالْأَرْضَ بِالْحَقِّ
يَكْوَرُ اللَّيْلُ عَلَى النَّهَارِ وَيَكْوَرُ النَّهَارُ عَلَى اللَّيْلِ وَتَخَّرَ الشَّمْسُ وَالْقَمَرُ
كُلٌّ يَجْرِي لِأَجَلٍ مُّسَمًّى ۗ أَلَا هُوَ الْعَزِيزُ الْغَفُورُ ﴿١٧﴾

سورة الزمر

الجزء الثالث والعشرون

Cited Verse # (3-17)

In The Name of ALLAH, Most Gracious, Most Merciful

He Created the heavens and the earth in true proportions, He Wraps the night over the day (in spherical form) and Wraps the day over the night (in spherical form), and He Has Subjected the sun and the moon, each running for an appointed term, Is not He The Exalted in power, He Who Forgives again and again.

(part 23, Surat Al Zumor "The Crowds")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَتَرَى الْجِبَالَ تَحْسَبُهَا جَامِدَةً وَهِيَ تَمُرُّ مَرَّ السَّحَابِ صُنِعَ
اللَّهُ الَّذِي أَتَقَنَ كُلَّ شَيْءٍ ۗ إِنَّهُ خَيْرُ مَا تَفْعَلُونَ ﴿٢٠﴾

سورة النمل

الجزء العشرون

Cited Verse # (3-18)

In The Name of ALLAH, Most Gracious, Most Merciful

And you see the mountains, you think they are stand still, though they pass by as the clouds pass by, made by ALLAH, Who Perfected every thing, He is completely knowledgeable of what you do.

(part 20, Surat Al Naml "The Ants")

The first and the second of cited verses #(3-19) give extremely valuable information about one of the most mysterious characteristics of the lowest heaven (the universe) which is not yet known by the astronomers and the astrophysicists. These verses will be discussed in the Construction of the Lowest Heaven section.

In the third verse of cited verses #(3-19), ALLAH (SWT) Says, “and He Suppressed its complete darkness and Brought out its morning light”. We have learned from cited verses #(3-5) that the heaven was smoke before ALLAH (SWT) Arranged it into seven heavens and Assigned in each its tasks. When the heaven been nothing but smoke, it was engulfed in complete darkness. Afterwards, ALLAH (SWT) Has Created every thing in the seven heavens and Set them to function according to His commands and rules. In the last verse of cited verses #(3-5), ALLAH (SWT) Says, “and We Have Adorned the lowest heaven with lamps ...”. Lamps emit light by burning fuel. Therefore, the lamps in the lowest heaven that emit light are the stars *. From the above two verses we learn that the creation of the stars in the lowest heaven brought the light to it after being in complete darkness when it was smoke. This light is defined in the third verse of Cited verses #(3-19) as the brightest light of the day (in Arabic “*Doha*”). *Doha* is the time of the day, about three to four hours after sunrise. At this time the daylight has reached its maximum brightness and it remains so till about two hours before sunset. Therefore, the light that ALLAH (SWT) Has Brought to the lowest heaven by Creating the stars is the brightest light, and it will remain so as long as the heaven exists.

We have learned earlier that our sun, our moon and all the planets and their moons in our solar system are part of the lowest heaven. That is, all the objects in our solar system (except the earth) were created with the creation of the lowest heaven. In the last three of cited verses #(3-19), ALLAH (SWT) Says, “And the earth after that He Bulged it. Exited from within its water and its pasture. And the mountains He Set them rigidly”. This indicates that these three events that the earth went through took place after the creation of all the objects in our solar system. The sequence of events that the earth went through is as follows :-

1. Bulging of the earth.
2. Exiting of water from within the earth and the formation of the pasture.
3. Setting of the mountains and fixing them rigidly in the earth.

EVENT #1 (BULGING OF THE EARTH)

The sun is the largest object in our solar system (865,000 miles in diameter). As it started to function, its strong gravitational force attracted the planets in our solar system,

- A star is a huge volume of gas (hydrogen) where a chemical reaction process known as “*fusion*” takes place, which transfers hydrogen into helium thus producing tremendous amount of heat and emit very bright light (our sun is a star).

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

ءَ أَنْتُمْ أَشَدُّ خَلْقًا
 أَمْ السَّمَاءُ بَنَّاهَا ﴿٢٧﴾ رَفَعَ سَمَكَهَا فَسَوَّيْنَاهَا ﴿٢٨﴾ وَأَغْطَشَ لَيْلَهَا
 وَأَخْرَجَ ضُحَاهَا ﴿٢٩﴾ وَالْأَرْضَ بَعْدَ ذَلِكَ دَحَاهَا ﴿٣٠﴾ أَخْرَجَ
 مِنْهَا مَاءَهَا وَمَرْعَاهَا ﴿٣١﴾ وَالْجِبَالَ أَرْسَنَاهَا ﴿٣٢﴾

سورة النازعات

الجزء الثلاثون

Cited Verses #(3-19)

In The Name of ALLAH, Most Gracious, Most Merciful

Are you the more difficult to create or the heaven which He Constructed. He Raised its thickness and Gave it order and perfection. And He Suppressed its complete darkness and Brought out its morning light. And the earth after that, He Bulged. Exited from within its water and its pasture. And the mountains He Set rigidly.

(part 30, Surat Al Naaze'at "Those Who Tear Out")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

بَلْ مَتَّعْنَا هَهُنَا لِيَوْمِ
 وَءِ آبَاءِهِمْ حَتَّى طَالَ عَلَيْهِمُ الْعُمُرُ أَفَلَا يَرَوْنَ أَنَّا نَأْتِي الْأَرْضَ نَنْقُصُهَا
 مِنْ أَطْرَافِهَا أَفَهُمُ الْغَالِبُونَ ﴿٤٤﴾

سورة الأنبياء

الجزء السابع عشر

Cited Verse #(3-20)

In The Name of ALLAH, Most Gracious, Most Merciful

But We Have Given those and their fathers pleasurable and long life, do not they see that We Come to Reduce the earth from its tips, are they the winners ?.

(part 17, Surat Al Anbiya'a "The Prophets")

as well as the earth, so they started to move in orbits around it. All the planets in our solar system (including the earth) perform two types of motions, a spinning motion and a translation motion along their respective orbits around the sun. It is not clearly understood what causes the spinning motion of the planets, however it may be attributed to their own magnetic fields and the strong electromagnetic waves emitted from the sun. The spinning motion of the planets is necessary for stabilizing their orbital motions and for maintaining their attitudes relative to their respective orbital planes. From the fourth verse of cited verses #(3-19) we learn that ALLAH (SWT) Has Caused the earth to *bulge* after the creation of the lowest heaven, that is after the creation and the functioning of our solar system. The earth has a spherical shape. Bulging a spherical object is done by pressing it from two opposite sides, thus causing its diameter normal to the direction of the applied force to swell (to increase), and its diameter along the direction of the applied force to be reduced. Therefore, some force must have acted on the earth to cause its bulging. In cited verse #(3-20) and cited verse #(3-21), ALLAH (SWT) Has Told us two things, the earth is spinning, and where the earth is bulged. In cited verse #(3-20), ALLAH (SWT) Says, “do not they see that We Come to Reduce the earth from its tips”, and in cited verse #(3-21), ALLAH (SWT) Says, “Have not they seen that We Come to Reduce the earth from its tips”. The Holy Wisdom of ALLAH (SWT) is demonstrated clearly in these two verses. He Wants us to think and to study His Holy words carefully. Any spherical shape, such as a rounded ball, does not have tips, unless it is spinning. For a spinning sphere the tips are the intersections of the spinning axis with the sphere’s surface. The spinning axis of the earth passes through the poles (the north and the south poles). Therefore, the tips of the earth are the north pole and the south pole. Accordingly, from cited verses #(3-20) and #(3-21) we learn that the polar diameter of the earth, that is the distance between the north pole and the south pole, is shorter than the equatorial diameter (the diameter of the earth at the equator) [more striking information from cited verses #(3-20) & #(3-21) is presented in Chapter 6]. The following may be concluded:-

THE EARTH IS BULGED AT THE EQUATOR, THAT IS THE EQUATORIAL DIAMETER OF THE EARTH IS LARGER THAN ITS POLAR DIAMETER.

This phenomenon was discovered only in the late 1950’s, after the launching of man made earth satellites. The instrumentation aboard those satellites provided very accurate measurements of the earth’s shape. The satellites’ measurements showed that the earth is bulged at the equator. The diameter of the earth at the equator is 26.7 miles (43 kilometers) larger than its diameter at the poles. Measurements from the satellites also showed that the equatorial bulge is 26 feet (8 meters) bigger in places south of the equator.

As explained earlier, and based on the sequence of events mentioned in cited verses #(3-19), ALLAH (SWT) Has Caused the earth to bulge after the creation and the functioning of the lowest heaven (our solar system included, except the earth). Due to the presence of the sun and the other planets, the earth started to spin and also started to move along an orbit around the sun. The earth bulged as a result of its spinning motion.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَوَلَمْ يَرَوْا أَنَّا نَأْتِي الْأَرْضَ نَنْقُصُهَا مِنْ أَطْرَافِهَا وَاللَّهُ يَحْكُمُ
لَا مُعَقِّبَ لِحُكْمِهِ وَهُوَ سَرِيعُ الْحِسَابِ ﴿٤١﴾

سورة الرعد

الجزء الثالث عشر

Cited Verse # (3-21)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not they see that We Come to Reduce the earth from its tips, and ALLAH Rules, none to question His ruling and He is Swift in accounting.

(part 13, Surat Al Ra'ad "The Thunder")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

* كَذَّبَتْ قَبْلَهُمْ قَوْمُ نُوحٍ فَكَذَّبُوا
عِبْدَنَا وَقَالُوا مُجَنُّونٌ وَأَزْدُ جِرٍّ ﴿١﴾ فَدَعَا رَبَّهُ أَنِّي مَغْلُوبٌ فَأَنْتَصِرْ ﴿٢﴾
فَفَتَحْنَا أَبْوَابَ السَّمَاءِ بِمَاءٍ مُنْهَمِرٍ ﴿١١﴾ وَفَجَّرْنَا الْأَرْضَ عُيُونًا
فَأَلْتَقَى الْمَاءُ عَلَى أَمْرٍ قَدْ قُدِرَ ﴿١٦﴾

سورة القمر

الجزء السابع والعشرون

Cited Verses # (3-22)

In The Name of ALLAH, Most Gracious, Most Merciful

Before them the people of Noah did not believe, and they rejected our slave (devotee) and said "mentally ill" and was driven out. He (Noah) then called on his LORD, "I am overwhelmed, let me be victorious". So, We Opened the gates of heaven with water pouring forth. And We Have Caused the earth to gush forth with springs, so the waters met (flooded) to the extent decreed.

(part 27, Surat Al Qamar "The Moon")

The following is a basic scientific analysis of how the spinning of the earth caused it to bulge. Those who are not interested in this analysis may skip the next outlined section.

Any mass that rotates about itself (spin) generates an outward acceleration (force per unit mass), called "*centrifugal acceleration*". The force due to this acceleration is called "*centrifugal force*". The centrifugal force is directly proportional to the distance from the spin axis. As this distance increases, the centrifugal force increases. Due to the spherical shape of the earth and its spinning motion, the centrifugal force is zero at the poles (North and South), and has its maximum value at the equator. Therefore, the main forces acting on the spinning earth are, its own gravitational force (directed inward towards the earth's center), and the centrifugal force (directed outward and perpendicular to the spin axis, that is the line joining the north and the south poles). Figure (3-3) illustrates these forces. The centrifugal force may be analyzed in two components, a radial component directed outwards normal to the earth's surface (opposing the inward gravitational force), and a tangential component (tangent to the earth's surface). The radial component of the centrifugal force affects the magnitude of the gravitational force. Since the radial component of the centrifugal force is zero at the poles and maximum at the equator, therefore the net gravitational force is maximum at the poles and minimum at the equator. The variation of the gravitational force from the poles to the equator is less than 0.2%. Although this variation is very small, but due to the mass of the earth, it produced forces big enough to compress the surface of the earth from the poles inwards towards the equator, thus forming the equatorial bulge.

The earth is formed of several layers (see Chapter 7 for details). Beneath the outermost two layers, the crust and the lithosphere plates "*the solid foundations*", there is a soft semi-liquid (magma) layer. The existence of this layer made it possible for the compression forces, from the poles towards the equator, to bulge the earth at the equator. The tangential component of the centrifugal force also contributed to the bulging of the earth, but to a lesser extent.

EVENT #2 (EXIT OF WATER FROM WITHIN THE EARTH)

From cited verses #(3-5), we learned that during the last four days (four thousand lunar years) of the creation, ALLAH (SWT), Laid down in the earth all its resources. The primary and most vital resource is water. Without water there is no life, cited verse #(3-1). In the fifth verse of cited verses #(3-19), ALLAH (SWT) Says, "Exited from within its water and pasture". That is, the water as an earth resource was laid down beneath the earth's surface. This indicates that there are huge underground reservoirs of water. In fact ALLAH (SWT) Has Told that. The great deluge of Prophet Noah was caused by continuous heavy rain together with tremendous amount of water gushing from beneath

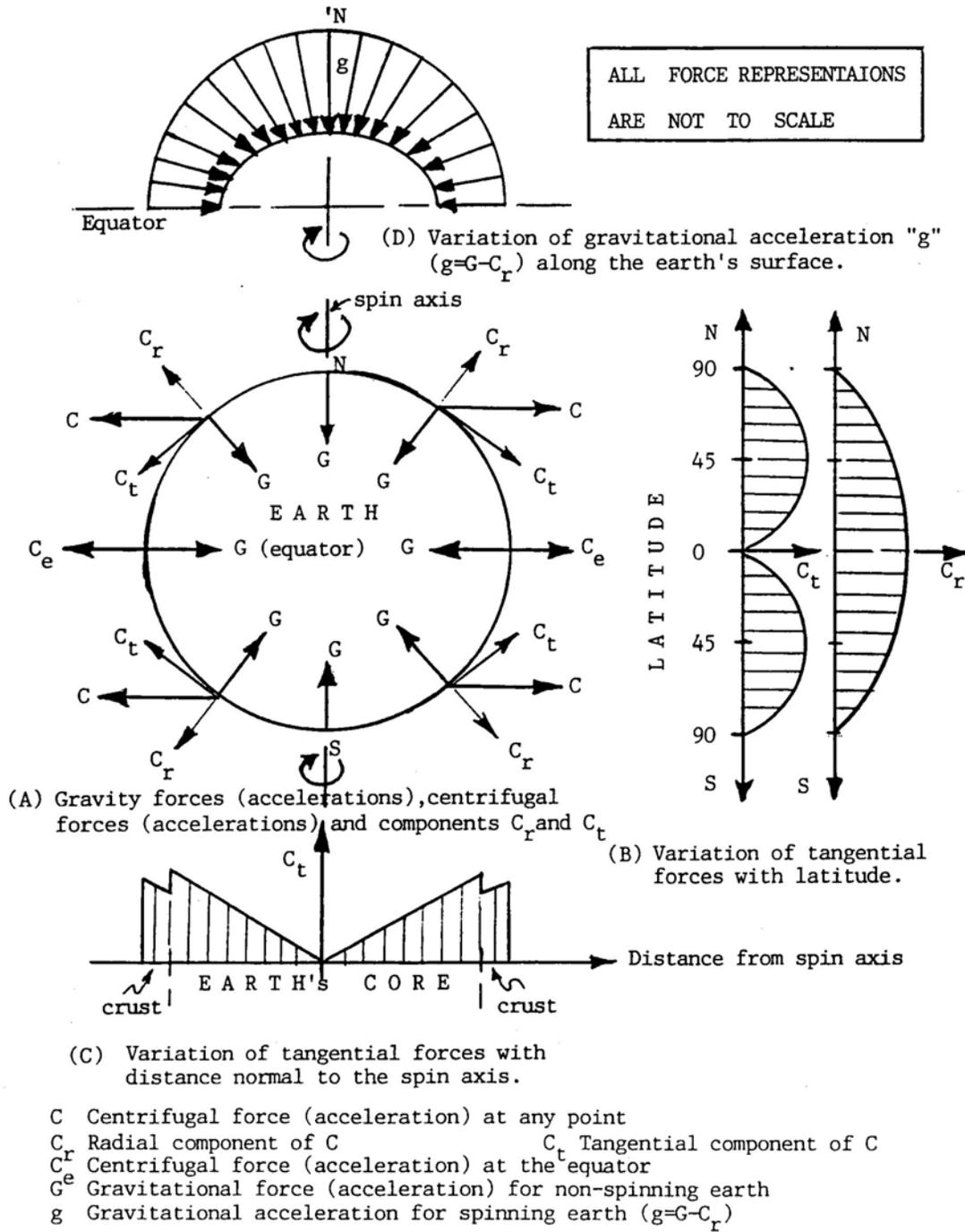


Figure (3-3) Gravitational and centrifugal forces on the earth

the earth's surface. In the last verse of cited verses #(3-22), ALLAH (SWT) Says "and We Caused the earth to gush forth with springs". This is a clear indication of the existence of these huge underground water reservoirs. To end the deluge, ALLAH (SWT) Ordered the earth to swallow *its water* and the rain to stop, cited verse #(3-23).

Water and the other earth resources were laid down into the earth before it started its spinning motion. This is shown from the sequence of events mentioned in cited verses #(3-5). After ALLAH (SWT) Has Created the earth, Made solid foundations on top of it, Blessed it, Laid down in it its resources, He Ordered the heavens and the earth to start to perform according to His rules, "*come ye willingly or unwillingly*", cited verses #(3-5). The earth's performance according to ALLAH's rules, is to spin and to move in an orbit around the sun. The earth's resources are kept within the earth by its own gravitational force. The solid foundations that ALLAH (SWT) Made on top of the earth are also held in place by means of the earth's gravitational force. Similarly, the earth's atmosphere (*the what in between the heavens and the earth*) is kept attached to the earth's surface by means of the earth's gravitational force. Therefore the following may be concluded:-

THE EARTH'S GRAVITATIONAL FORCE WAS CREATED WITH THE CREATION OF THE INNER PART OF THE EARTH, BENEATH THE SOLID FOUNDATIONS (DURING THE FIRST TWO DAYS "TWO THOUSAND LUNAR YEARS" OF CREATION).

THE EARTH STARTED TO SPIN AND TO MOVE IN ORBIT AROUND THE SUN BY THE END OF THE SIX DAYS OF CREATION. AT THAT TIME THE EARTH STARTED TO BULGE.

THE EARTH'S ATMOSPHERE WAS CREATED DURING THE LAST TWO DAYS (TWO THOUSAND LUNAR YEARS) OF THE CREATION.

When the earth started to spin, the shear stresses generated by the centrifugal forces, Figure (3-3), caused parts of the earth's crust to crack at several locations. Under the internal pressure from beneath the earth's solid foundations, water came flowing out to the earth's surface. Plant seeds were already in the ground (among earth's resources laid into it), and the earth's atmosphere was just been created. The existence of the atmosphere was necessary for growing plants "*pasture*", since it contains the needed oxygen and nitrogen.

EVENT #3 (FORMATION OF THE MOUNTAINS)

As was explained earlier, when the earth started to spin and to move, the earth's crust went under severe stresses due to the formed shear and compression forces. The concentration of these stresses varied from one location to another, according to the local conditions. The generated forces pushed parts of the earth's crust upwards thus forming the mountains. As the surface material is pushed upwards, the lower layers are compressed more to form the mountains' rigid foundations, Figure (3-4). The composition, the density, and the solidity of the earth's crust vary from one location to

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَقِيلَ يَا أَرْضُ ابْلَعِي مَاءَكِ وَيَسْمَاءُ أَقْلِعِي
وَغِيضَ الْمَاءِ وَقُضِيَ الْأَمْرُ وَاسْتَوَتْ عَلَى الْجُودِيِّ وَقِيلَ بُعْدًا
لِلْقَوْمِ الظَّالِمِينَ ﴿٤٤﴾

سورة هود

الجزء الثاني عشر

Cited Verse #(3-23)

In The Name of ALLAH, Most Gracious, Most Merciful

Then the word went forth, “O earth !, swallow up thy water, and O heaven !, withhold thy rain”, and the water abated and the matter was ended, and it (The Ark) rested on the Judei (Mount Judei), and the word went forth, “Away with the unjust people”.

(part 12, Surat Hood “The Prophet Hood”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَفَلَا يَنْظُرُونَ إِلَى الْإِبِلِ كَيْفَ خُلِقَتْ ﴿١٧﴾
وَإِلَى السَّمَاءِ كَيْفَ رُفِعَتْ ﴿١٨﴾ وَإِلَى الْجِبَالِ كَيْفَ نُصِبَتْ ﴿١٩﴾
وَإِلَى الْأَرْضِ كَيْفَ سُطِحَتْ ﴿٢٠﴾

سورة الغاشية

الجزء الثلاثون

Cited Verses #(3-24)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not they look at the camels, how they are created. And to the heaven, how it is raised. And to the mountains, how they are set up. And to the earth, how its surface is leveled.

(part 30, Surat Al Ghaashiyah “The Overwhelming Event”)

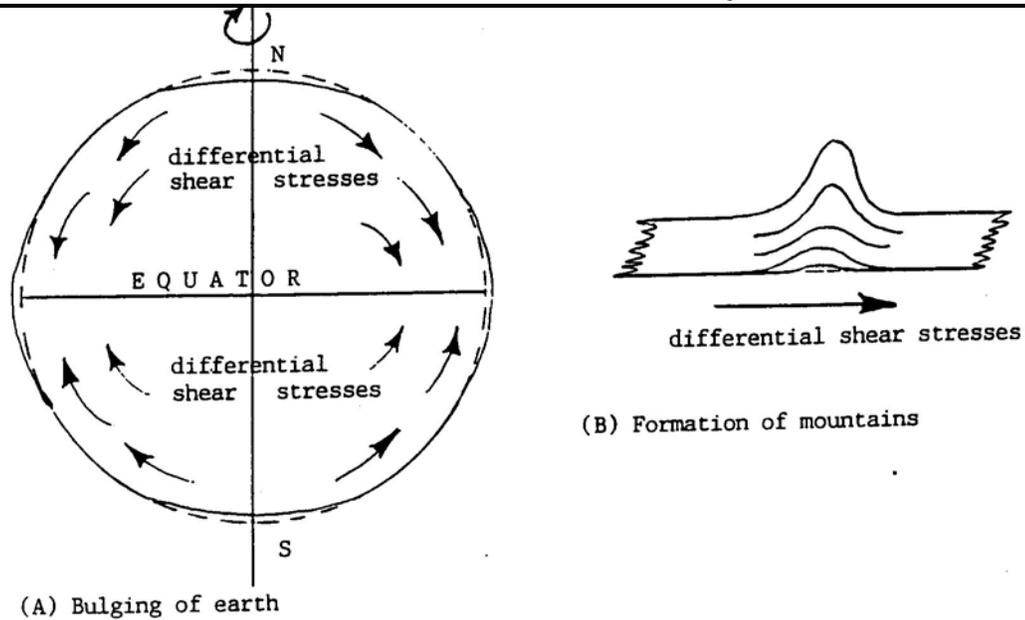


Figure (3-4) Bulging of the earth and formation of the mountains

another. The stresses then propagated in different directions and the mountains were formed accordingly. This phenomenon of mountains' formation is described in cited verses #(3-24). In these verses ALLAH (SWT) is Exhibiting some of His creation. In such exhibition He Says, "And at the mountains, how they are set up.". The Arabic word in the verse translated to "*set up*", is used as in "*setting up a tent*". This means that the mountains did not exist before this event occurred. Moreover, the word set up (as in setting up a tent) indicates that the mountains were formed gradually, from the ground up [marine mountains are formed in a different manner (Chapter 7)]. Therefore, the following may be concluded :-

THE MOUNTAINS ARE AN INTEGRAL PART OF THE EARTH'S CRUST. THEY WERE FORMED AS A RESULT OF THE SPINNING MOTION OF THE EARTH. THE MOUNTAINS DID NOT EXIST BEFORE THE EARTH STARTED TO SPIN. THEY WERE FORMED FROM THE GROUND UP, DUE TO THE STRESSES GENERATED IN THE EARTH'S CRUST AS A RESULT OF ITS SPINNING MOTION.

The latest theory suggests that the mountains were formed when the drifting continents crashed into each other (when tectonic plates collide) [see Chapter 7]. From the three events that occurred to the earth after its creation, cited verses #(3-19), we learn the following :-

BULGING OF THE EARTH, EXITING OF THE WATER FROM WITHIN, AND FORMATION OF THE MOUNTAINS, OCCURRED AFTER THE EARTH STARTED TO SPIN (AS A RESULT OF THE EARTH'S SPINNING MOTION).

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَلِلَّهِ الْمَشْرِقُ وَالْمَغْرِبُ

فَأَيْنَمَا تُولُوْا فَمُوجُهُ اللَّهِ إِنَّ اللَّهَ وَاسِعٌ عَلِيمٌ ﴿٣٥﴾

سورة البقرة

الجزء الأول

Cited Verse # (3-25)

In The Name of ALLAH, Most Gracious, Most Merciful

And to ALLAH belong the eastward and the westward, wherever you turn, there is the presence of ALLAH, for ALLAH is all Pervading, all Knowing.

(part 1, Surat Al Baqarah “The Heifer”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

فَلَا أُقْسِمُ بِرَبِّ الْمَشْرِقِ

وَالْمَغْرِبِ إِنَّا لَقَدِرُونَ ﴿٣٦﴾ عَلَىٰ أَنْ نُبَدِّلَ خَيْرًا مِنْهُمْ وَمَا نَحْنُ بِمَسْبُوقِينَ ﴿٤١﴾

سورة المعارج

الجزء التاسع والعشرون

Cited Verses # (3-26)

In The Name of ALLAH, Most Gracious, Most Merciful

And I DO Swear by The LORD of the eastwards and the westwards that We are perfectly Capable of substituting for them better than they are, and We are not to be preceded.

(part 29, Surat Al Ma’arij “The Ways of Space Travel”)

In cited verse # (3-21) ALLAH (SWT) Says “We Come to Reduce the earth ...”. In the Arabic language the verbs translated to “come” and “reduce” are in present continuous form. That is the event of bulging of the earth is a continuous process, started by the end of the creation period and still going on. As explained above, since the formation of the mountains is a result of the spinning and bulging of the earth the bases of the mountains are continuously compressed and their heights are continuously increasing. Measurements have shown that the height of Mount Everest increases annually by about 4 inches (about 10 cm.).

No man made theory has provided this fact.

Based on what we have learned, a more detailed time line for the creation of the earth, the heavens and what in between them [the earth's atmosphere] is presented in Figure (3-5).

TILTING OF THE EARTH'S SPIN AXIS

The cited verses so far, have shown that the earth is not exactly a perfect sphere. It is closer of having a geometrical shape known as "*oblate spheroid*". The cited verses also have shown that the earth rotates about itself (spins) and that the spin axis is inclined by an angle to the earth's orbital plane (the plane containing the center of the earth and the center of the sun). In the next cited verses ALLAH (SWT) Has given us more information about the planetary motion of the earth around the sun.

In cited verse #(3-25), ALLAH (SWT) Says, "And to ALLAH belong the eastward and the westward ...". Eastward, means far away on the horizon where the sun rises, and westward, means far away on the horizon where the sun sets. In this verse, it is noticed that both words "*eastward*" and "*westward*" are in singular form. That is *one eastward* and *one westward*.

When we humans want to be believed or when we are absolutely sure of what we are saying, we swear. When we swear, we swear by something that is more powerful than we are, or we swear by someone or something that is very dear to us. ALLAH (SWT) is the One that Has the ultimate power and the absolute authority. When ALLAH (SWT) Swears, He Swears either by Himself or by one of His creations. In cited verses #(3-26), ALLAH (SWT) Swears by Himself. He Says, "And now I Do Swear by The LORD of the eastwards and the westwards that We are perfectly capable of substituting ...". In these verses, the words "*eastwards*" and "*westwards*" are in plural form. That is, there are *more than two eastwards* and *more than two westwards* [in the Arabic language there is a special form when referring to two things].

In cited verses #(3-27), in demonstrating His absolute authority and power, ALLAH (SWT) Says, "LORD of the two eastwards and LORD of the two westwards, ...". The "*two eastwards*" and the "*two westwards*" are preceded by the word "*the*". This indicates that there are two specifically defined eastwards and two specifically defined westwards. Knowing that the eastward is the direction where the sun rises and the westward is the direction where the sun sets, cited verses #(3-25), #(3-26) and #(3-27) show that ALLAH (SWT) Has Created a certain phenomenon that results in the following three situations :-

- ◆ The sun rises from ONE distinct direction and sets at ONE distinct direction.
- ◆ The sun rises from TWO distinct directions and sets at TWO distinct directions.
- ◆ The sun rises from MANY directions and sets at MANY directions.

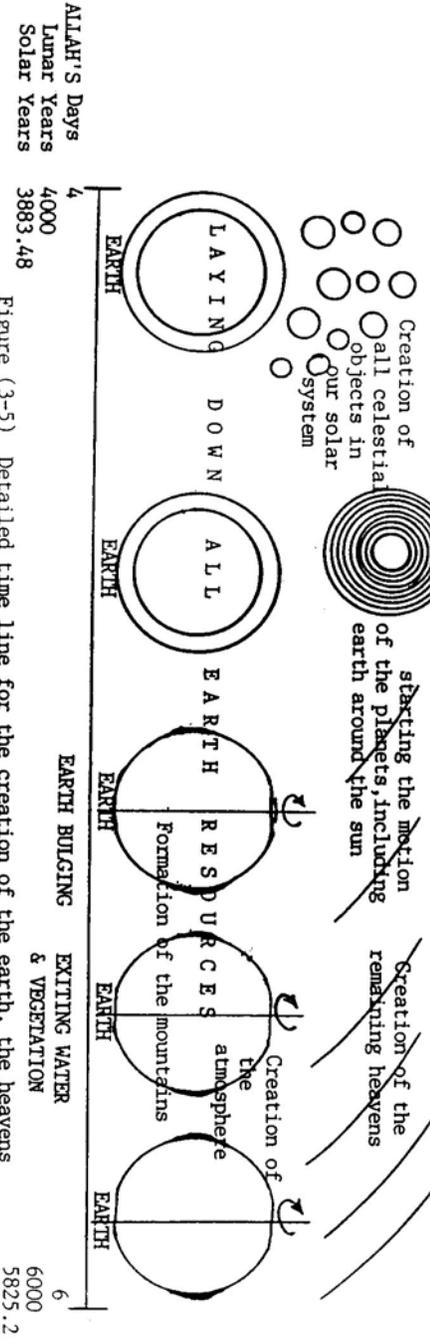
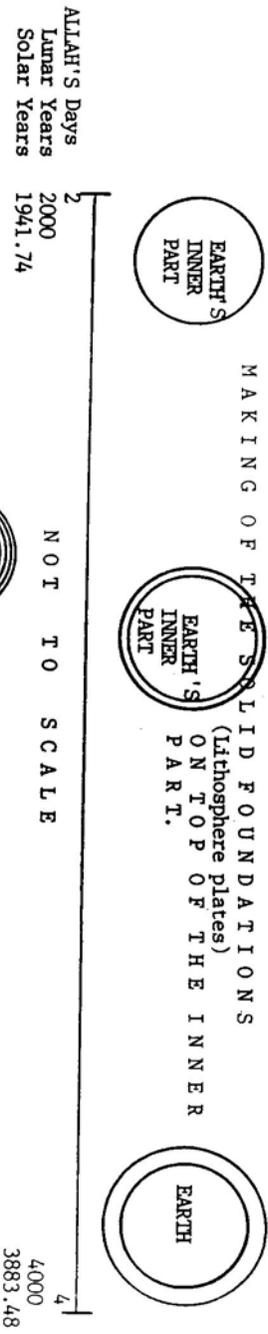
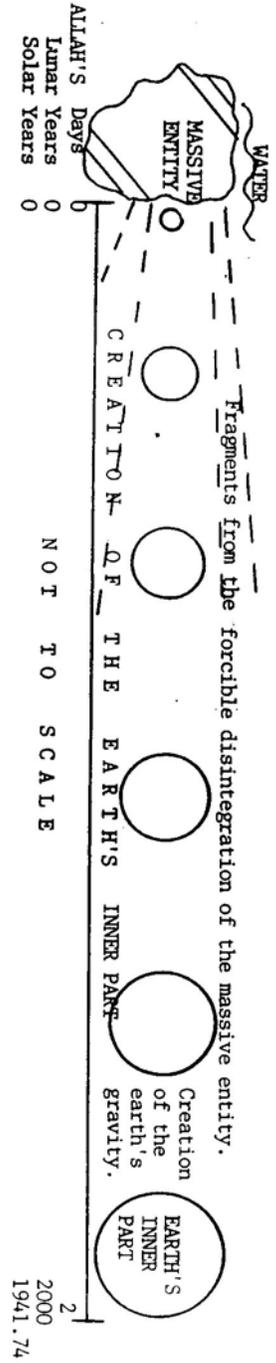


Figure (3-5) Detailed time line for the creation of the earth, the heavens and in between (the earth's atmosphere).

The Holy Qur'an is the words of ALLAH (SWT) to all mankind. He Has Created us and He Knows the capabilities and the limitations of the human mind. In the Holy Qur'an, Whenever ALLAH (SWT) Talks about a simple observed phenomenon of His creation, that all the people can observe and understand, He Mentions it in a direct and a straight forward manner. For other of His creations that are not clearly recognized by the people, He Gives some pointers and clues, so we can think and study to reach to the right answers. Studying the clues and pointers given in cited verses #(3-25), #(3-26) and #(3-27) leads us to the conclusion that the earth's spin axis is tilted by an angle to the orbital plane (the plane that contains the center of the earth and the center of the sun).

The following is a basic scientific analysis of cited verses #(3-25), (3-26) and (3-27). Those who are not interested may skip the following outlined section.

The four seasons (Winter, Spring, Summer, Autumn) that the earth goes through every solar year is caused by the inclination of its spin axis to the orbital plane. Figure (3-6) shows sun rays' projections on the surface of the earth at the different seasons. At the first day of the winter (22nd. of December), the sun rays become vertical to the tropic of Capricorn (latitude 23.5 degrees south), Figure (3-6A). As the winter progresses, the vertical sun rays move to the north. At the beginning of the spring (21st. of March), the sun rays become vertical to the Equator, Figure (3-6B). The vertical sun rays then continue to move to the north. At the beginning of the summer (21st. of June), the sun rays become vertical to the tropic of Cancer (latitude 23.5 degrees north). As the summer progresses, the vertical sun rays move to the south. At the beginning of the autumn (23rd. of September), the sun rays become vertical to the Equator again, Figure (3-6D). The four seasons are completed in one revolution of the earth around the sun (one solar year). The same cycle is then repeated again and again, as the earth repeats its orbital motion around the sun.

As the seasons change, we notice that there are two distinct boundaries for the vertical sun rays. Those TWO distinct boundaries for the vertical sun rays are the tropic of Cancer and the tropic of Capricorn. The vertical sun rays move in Many locations between these two boundaries. Between these two boundaries, there is ONE distinct location (in the middle) for the vertical sun rays. This ONE distinct location is the Equator.

From the earth and along the year, we see the sun rises from different locations (from the east), and sets at different locations (at the west). These locations change daily. At the beginning of the spring and the autumn (the sun rays become vertical to the equator). At these two particular days of the year, the sun rises from ONE distinct location in the east (One Eastward) and sets at ONE distinct location in the west (One Westward). At the beginning of the winter (the sun rays become vertical to the tropic of Capricorn), the sun rises from the southern most location and sets at the southern most location. At the beginning of the summer (the sun rays become vertical to the tropic of Cancer), the sun

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

رَبُّ الْمَشْرِقَيْنِ وَرَبُّ الْمَغْرِبَيْنِ ﴿١٧﴾ فَبِأَيِّ آيَاتِ رَبِّكُمَا تُكَذِّبَانِ ﴿١٨﴾

سورة الرحمن

الجزء السابع والعشرون

Cited verses # (3-27)

In The Name of ALLAH, Most Gracious, Most Merciful

LORD of the two eastwards and LORD of the two westwards. Then which of the favors of your LORD will you deny.

(part 27, Surat Al Rahman "The Most Gracious")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

فَمَنْ

يُرِدِ اللَّهُ أَنْ يَهْدِيَهُ، يَشْرَحْ صَدْرَهُ لِلْإِسْلَامِ وَمَنْ يردُّهُ، يَضِلُّهُ، يَجْعَلْ صَدْرَهُ ضَيْقًا حَرَجًا كَأَنَّمَا يَصْعَدُ فِي السَّمَاءِ كَذَلِكَ يَجْعَلُ اللَّهُ الرِّجْسَ

عَلَى الَّذِينَ لَا يُؤْمِنُونَ ﴿١٤٥﴾

سورة الأنعام

الجزء الثامن

Cited Verse # (3-28)

In The Name of ALLAH, Most Gracious, Most Merciful

This whom ALLAH Wills to guide, opens his chest (heart) to the Islam, and this whom He Wills to leave straying, He Makes his chest narrow, constricted as if he is rising in the sky, that is how ALLAH Makes severe penalties on those who do not believe.

(part 8, Surat Al An'aam "The animals")

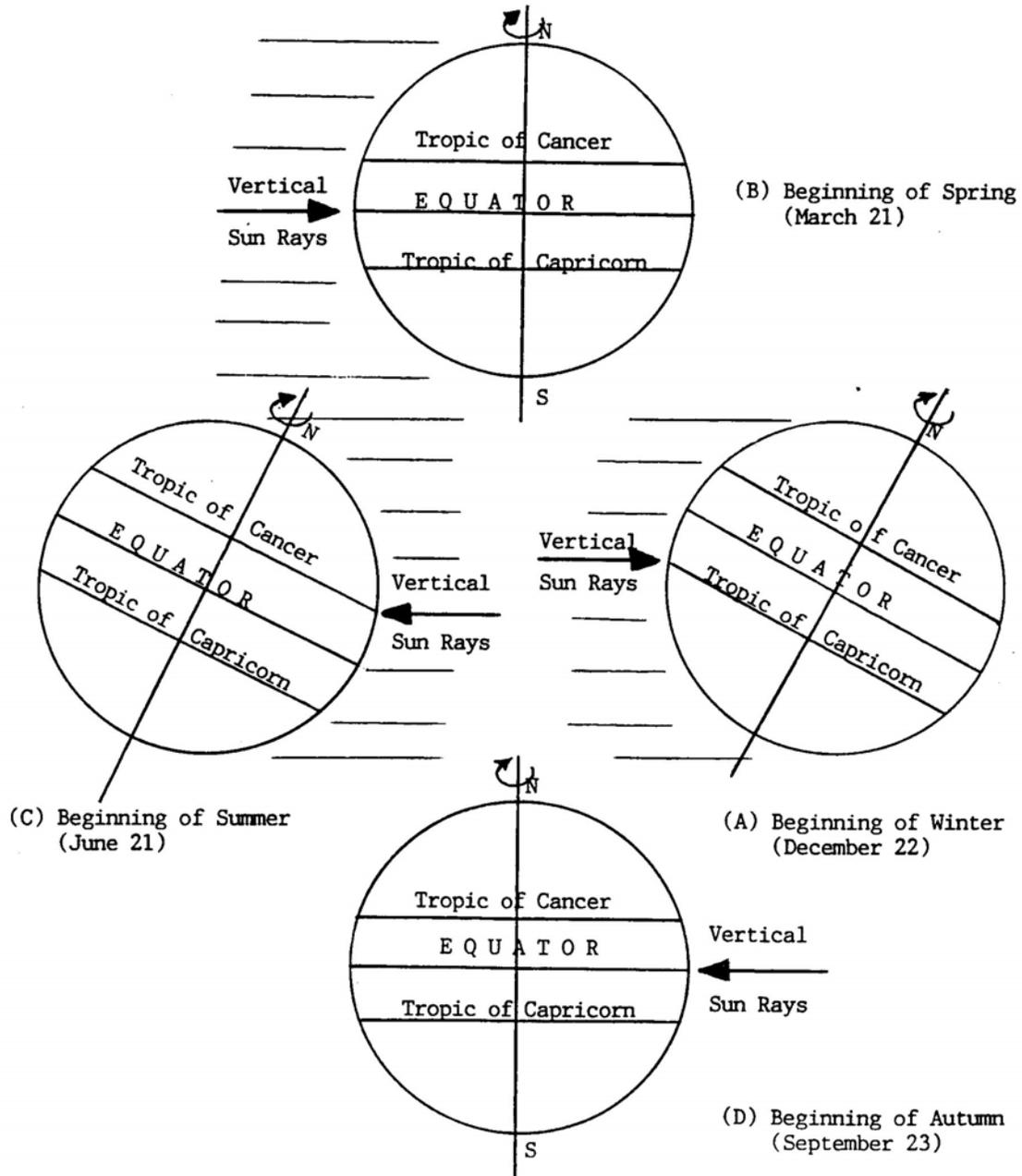


Figure (3-6) Sun rays projection on the earth

rises from the northern most location and sets at the northern most location. At these two particular days of the year (the beginning of the winter and the beginning of the summer), the sun rises from TWO distinct Eastwards and sets at TWO distinct Westwards. At all other days of the year (other than the beginning of the four seasons), the sun rises and sets between these two boundaries, that is, there are MANY Eastwards and MANY Westwards.

VARIATION OF THE ATMOSPHERIC PRESSURE WITH ALTITUDE

In the English language, the two words, “*heaven*” and “*sky*” are translated to one Arabic word “*sama’a*” for singular, “*samawaat*” for plural. The word “*sky*” is used to describe the space above the earth’s surface that contains the earth’s atmosphere. While the word “*heaven*” is the space beyond the earth’s atmosphere, that is the universe. In the English language, sometimes the word “*heaven*” is used instead of the word “*paradise*”. In this book, the word “*heaven/s*” is used to define what is beyond the earth’s atmosphere (the universe and beyond). In the Holy Qur’an, the verses are constructed to give the exact meaning of the word “*sama’a (singular) / Samawaat (plural)*”.

All living creatures on the earth are created in such a way to perform adequately in the earth’s environment. Our biological structure is designed to function properly at sea-level atmospheric conditions (sea-level pressure, density and temperature). To maintain the vital biological functions, a certain mass of air is needed (in particular oxygen) in each breathing cycle. This air mass is adjusted for optimum performance at sea-level conditions. If the required mass of air (specially oxygen) is reduced for any reason, the breathing will be narrow and constricted. The reduction of the required air mass occurs when the pressure and the density of the air are reduced. As we go up from the earth’s surface, the pressure, density and temperature of the air decrease. This makes breathing more difficult as we go to higher altitudes. At altitudes of about 12,000 feet and higher, human life could not be sustained without artificial breathing devices, due to the considerable reduction in the atmospheric pressure and density.

In cited verse #(3-28), ALLAH (SWT) Tells about the phenomenon of the reduction of the atmospheric pressure and density with altitude. In this verse ALLAH (SWT) Says, “... He Makes his chest narrow, constricted (hard to breathe) as if he is rising in the sky, ...”. The word “*sama’a*” in this verse, has the meaning of “*sky*”, that is, the earth’s atmosphere. This is because the word “*rising*” is used. The action of “*rising*” is the action of going to higher altitudes within the atmosphere. In the Arabic language, the word “*ya’ruj*” describes the motion through the outer space (beyond the earth’s atmosphere). In cited verse #(3-29), ALLAH (SWT) Says, “He Knows what moves through the earth and what comes out of it, and what comes down from the heaven and what moves (*ya’ruj*)

through it, and He is The Most Merciful, Who Forgives most". In this cited verse, as well as all other verses in the Holy Qur'an which describe the movement through the heaven (through the outer space), the Arabic word "ya'ruj" is used.

CONSTRUCTION OF THE LOWEST HEAVEN

In the first verse of cited verses #(3-19), ALLAH (SWT) is Challenging and Demeaning the unbelievers by Telling them that their creation is much easier and simpler than the creation of the heaven. ALLAH (SWT) Says, "Are you more difficult to create or the heaven that He Has Constructed". To construct means to build a rigid structure. In the second verse ALLAH (SWT) Says, "He Raised (elevated) its thickness (canopy) and Has Given it order and perfection". From cited verses #(3-11) to #(3-14), we have learned that the lowest heaven is a huge enclosure with solid perimeter. The first two verses of cited verses #(3-19) confirm this fact. The thickness of an enclosure is confined to its perimeter. From cited verses #(3-5) we have learned that after ALLAH (SWT) Has Arranged and Perfected the seven heavens, He adorned the lowest heaven with lamps (the stars). That is the stars as well as all other celestial objects are contained within the lowest heaven. As stated earlier in this chapter, the earth and its atmosphere each has its own identity and domain. They are outside the domain of the lowest heaven. The lower boundary of the lowest heaven is the outer threshold of the earth's atmosphere.

Though this phenomenon may seem to be beyond our comprehension, we have to keep in mind that this is ALLAH's creation and we are only one kind of His creation. In fact the above conclusion clarifies one of the most challenging and unsolved mysteries that the astronomers are facing today. According to the latest scientific theories and discoveries, all the illuminated celestial objects (stars, galaxies, quasars, etc.) that are observed, constitute less than 10% of matter in the universe (the lowest heaven). The remaining 90% or more is dark matter (non-illuminating objects). The question that the astronomers are seeking an answer to is, where is this huge amount of dark matter?. This huge amount of dark matter could not be closer to the earth than the observed stars, otherwise the stars could not be observed. Also, the bulk of the dark matter could not be located within the voids between the illuminating objects (stars and galaxies), since these voids could not accommodate their huge volume. Moreover, large concentrations of dark matter within the voids would obscure the illuminating objects beyond them and also could significantly alter the motion and the dynamics of the near by galaxies, due to their tremendous gravitational force. Therefore, the only logical explanation is that most of the dark matter must be located beyond the visible stars and galaxies. The bulk of the dark matter may be a part of the outer structure of the lowest heaven. In recent years astronomers have discovered the existence of an extremely powerful gravitational force field that affects to great extent the motions of galaxies. They named the source of this gravitational force, *the great attractor*. The outer structure of the lowest heaven may be

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 يَعْلَمُ مَا يَلِجُ فِي الْأَرْضِ وَمَا يَخْرُجُ
 مِنْهَا وَمَا يَنْزِلُ مِنَ السَّمَاءِ وَمَا يَعْرُجُ فِيهَا وَهُوَ الرَّحِيمُ الْغَفُورُ ﴿٢٩﴾
 الجزء الثاني والعشرون سورة سبأ

Cited Verse # (3-29)

In The Name of ALLAH, Most Gracious, Most Merciful

Knows what moves through the earth and what comes out of it, and what comes down from the heaven and what moves “*ya’ruj*” through it, and He is The Most Gracious, Who Forgives most.

(part 22, Surat Saba’a “Sheba”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 الَّذِي جَعَلَ لَكُمُ الْأَرْضَ فِرَاشًا
 وَالسَّمَاءَ بِنَاءً وَأَنْزَلَ مِنَ السَّمَاءِ مَاءً فَأَخْرَجَ بِهِ مِنَ الشُّجَرَاتِ
 رِزْقًا لَكُمْ فَلَا تَجْعَلُوا لِلَّهِ أَنْدَادًا وَأَنْتُمْ تَعْلَمُونَ ﴿٣٠﴾
 الجزء الأول سورة البقرة

Cited Verse # (3-30)

In The Name of ALLAH, Most Gracious, Most Merciful

Who Has Made for you the earth, covered with a smooth surface, and the heaven, a structure, and Sends down water from the heaven that brought forth therewith fruits for your sustenance, so do not make rivals to ALLAH when you know the truth.

(part 1, Surat Al Baqarah “The Heifer”)

that great attractor.

To gain more knowledge about the construction of the lowest heaven (the universe), let's analyze the information obtained from cited verses #(3-1), #(3-3), #(3-5), #(3-11) to #(3-14) and #(3-19). The primary entity from which the creation began produced only three identities, the earth, the heavens and what in between them (the earth's atmosphere). The only information that ALLAH (SWT) Gave about the upper heavens is that they are defined domains (enclosures) each one surrounding the ones beneath it and each has a solid perimeter. ALLAH (SWT) Did not Give any more information about the upper heavens because such information is beyond the comprehension of the human mind. The stars are made to beautify and to stabilize the lowest heaven among other functions [more about the role of the stars is presented later in this chapter and in Chapters 5 and 6]. Anything else within the enclosure of the lowest heaven other than the stars, the earth and its atmosphere is a part of its structure. We have learned earlier that the upper perimeter of the lowest heaven is constructed from solid material. This suggests the following:-

ALL DARK CELESTIAL OBJECTS [SUCH AS PLANETS (OTHER THAN THE EARTH), THEIR MOONS, OUR MOON, ASTEROIDS, COMETS, ETC.] ARE FORMED FROM THE SAME MATERIAL FROM WHICH THE PERIMETER OF THE LOWEST HEAVEN IS CONSTRUCTED. UNLIKE THE EARTH'S ATMOSPHERE WHICH WAS CREATED DURING THE CREATION PERIOD OF THE HEAVENS AND THE EARTH [cited verse #(3-3)], THE ATMOSPHERES OF THE PLANETS IN OUR SOLAR SYSTEM AND BEYOND MAY HAVE BEEN GENERATED FROM CHEMICAL REACTIONS WITHIN AND EVOLVED WITH TIME.

Accordingly, when in cited verse #(3-13) ALLAH (SWT) Says "... or Cause a big chunk of stone to fall on them from the heaven, ...", this means that He Can Cause a part from the heaven, such as an asteroid or a comet to fall on the earth.

In fact, in all the verses in the Holy Qur'an where ALLAH (SWT) Talks about the creation of the heaven (the lowest heaven) or the heavens, He Says that He Has built or constructed them. Also He always Differentiates between the heaven and the stars. In cited verse #(3-31), ALLAH (SWT) Says, "Do not they look at the heaven above them, how We Have Built it and Adorned it and it has no flaws". In this verse ALLAH (SWT) is Telling that the building of the heaven (the lowest heaven) and its adoration are two different things. According to the wording sequence in the verse, the process of building the heaven preceded the process of adorning it. In cited verses #(3-5), ALLAH (SWT) Says, "... and We Have Adorned the lowest heaven with lamps ...". As was explained earlier, the lamps that adorn the lowest heaven are the stars.

In cited verse #(3-30), ALLAH (SWT) Says, "... and Sends down water from the heaven ...". We have learned that the lowest heaven domain starts from beyond the

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 أَفَلَمْ يَنْظُرُوا إِلَى السَّمَاءِ
 فَوْقَهُمْ كَيْفَ بَنَيْنَاهَا وَزَيَّنَّاهَا وَمَا لَهَا مِنْ فُرُوجٍ ﴿٣١﴾
 الجزء السادس والعشرون سورة ق

Cited Verse # (3-31)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not they look at the heaven above them, how We Have Built it and Adorned it, and it has no flaws.

(part 26, Surat Qaaf “The Letter Qaaf”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 وَهُوَ الَّذِي جَعَلَ لَكُمُ النُّجُومَ
 لِتَهْتَدُوا بِهَا فِي ظُلُمَاتِ الْبَرِّ وَالْبَحْرِ قَدْ فَصَّلْنَا الْآيَاتِ لِقَوْمٍ يَعْلَمُونَ ﴿٣٢﴾
 الجزء السابع سورة الأنعام

Cited Verse # (3-32)

In The Name of ALLAH, Most Gracious, Most Merciful

And it is He Who Made for you the stars, to guide you in the darkness of the land and the sea, We Have Detailed the signs for people of knowledge.

(part 7, Surat Al Ana’am “The Animals”)

earth's atmosphere. It is known that rain comes from clouds within the earth's atmosphere. The intended meaning of this verse goes beyond this elementary knowledge. In fact, the earth is not an isolated object. Later on in this chapter [The heavens-earth connection section] it is shown that the heavens and the earth are interconnected by physical laws that we do not know of. Events that take place on the earth are responses to events that occur in the lowest heaven. One of these events is the production and fall of rain on the earth. ALLAH (SWT) Causes some events to happen in the lowest heaven, which affects the climate on the earth. One of the major factors that have a direct influence on the production of rain is the sun, which is in the domain of the lowest heaven. The sun heats up the oceans, thus forming clouds that produce rain. However, the rain production process is much more complicated than just evaporation of water from the oceans.

THE STARS AND THE PLANETS

In the Holy Qur'an, ALLAH (SWT) Shows the difference between a "*star*" and a "*planet*". The difference between the word "*star*", in Arabic "*najm*" and the word "*planet*", in Arabic "*kawkab*" is presented in a very clear manner. In cited verse #(3-32), ALLAH (SWT) Says that He Has Made for us, humans, the stars as beacons to guide us in the darkness of the land and the sea. For an object to act as a beacon, two conditions must be satisfied. First, it has to be clearly visible and recognizable. Second, it has to be located in a fixed location. These two conditions are not met by the planets in our solar system. The planets' locations relative to the earth are always changing. Moreover, sometimes they are visible from the earth and sometimes they are not. Therefore, the planets could never act as beacons for earth inhabitants. On the other hand, there are several star formations that are recognizable (constellations). Their locations relative to the earth are almost fixed. The earth and the stars are in continuous motion. The recognizable formations of the stars (constellations) could not maintain their fixed locations relative to the earth, unless they are very far away from the earth. In fact, all the stars (other than our sun) are very far away from earth. Their distances from the earth are measured in *light years*. A light year represents the distance covered by moving with the speed of light (186,282 miles per second) for the period of one year (one earth solar year). The distance covered by one light year is 5,874,589,152,000 miles. The closest stars (other than our sun) to the earth are tens of light years away. One of the stars that is used as a beacon is the North Star, which when looked at from the earth, gives the direction of the earth's geographic north.

In cited verses #(3-33), ALLAH (SWT) is Describing some of the events that will take place on judgment day. He Says, "And when the stars are dimmed". The only things that

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

فَإِذَا النُّجُومُ طُمِسَتْ ﴿٨﴾ وَإِذَا السَّمَاءُ فُرِجَتْ ﴿٩﴾
وَإِذَا الْجِبَالُ سُفَّتْ ﴿١٠﴾ وَإِذَا الرُّسُلُ أُقْتَتِ ﴿١١﴾

الجزء التاسع والعشرون
سورة المرسلات

Cited Verses #(3-33)

In The Name of ALLAH, Most Gracious, Most Merciful

Then when the stars are dimmed. And when the heaven is slightly opened. And when the mountains are demolished. And when the messengers are appointed a time.

(part 29, Surat Al Mursalaat "Those Sent Forth")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

إِذَا السَّمَاءُ أَنْفَطَرَتْ ﴿١﴾ وَإِذَا الْكَوَاكِبُ انْتَثَرَتْ ﴿٢﴾ وَإِذَا
الْبِحَارُ فُجِّرَتْ ﴿٣﴾ وَإِذَا الْقُبُورُ بُعْثِرَتْ ﴿٤﴾ عَلِمَتْ نَفْسٌ
مَا قَدَّمَتْ وَأَخَّرَتْ ﴿٥﴾

الجزء الثلاثون
سورة الانفطار

Cited Verses #(3-34)

In The Name of ALLAH, Most Gracious, Most Merciful

When the heaven is cleft asunder. And when the planets are scattered. And when the oceans are being exploded. And when the graves are turned upside down. Each soul has learned what it had forwarded and delayed.

(part 30, Surat Al Enfetaar "The Cleaving Asunder")

can be dimmed are sources of light. With these few words, ALLAH (SWT) Has Described the stars by one of their principle characteristics, sources of light. Also, in this verse, ALLAH (SWT) is Telling that the stars will not continue to emit light forever. On judgment day all the stars will cease to function in their usual way and will no longer emit light. On the other hand, in cited verses #(3-34), also in Describing some of the events that will take place on judgment day, ALLAH (SWT) Says, “And when the planets are scattered”. Obviously the objects that can be scattered possess characteristics different from those of the stars. They should be rigid, non-illuminating objects. Further more, scattering of objects at some time in the future, indicate that at the present time, these objects have precise and orderly motions, then at some time in the future their motions will be disrupted and they will be scattered. The orderly motion is one of the principle characteristics of the planets. They move in precise orbits around the sun. It is therefore clear that the Arabic word “*Najm*” means a “star”, and the Arabic word “*kawkab*” means a “planet”.

It is known that the planets are non-illuminating objects. Some of the planets in our solar system become visible at night when they are in positions that reflect sun’s light. There are nine major planets in our solar system. Also there are many minor distant planets within our solar system. The sizes of those minor distant planets are small that they could be classified as asteroids. Those minor distant planets could not be observed by the naked eye. At certain specific times, one, two or three of the major planets in our solar system may be visible from earth. In cited verses #(3-35), ALLAH (SWT) Says, “We Have Adorned the lowest heaven with the adoration of the planets”. The planets become visible only when there is a star nearby. The star in our solar system is the sun. The visibility of one, two or three planets in our solar system, and even not all the time, is no adoration to the lowest heaven. Therefore, there must be another explanation for this particular verse. In cited verses #(3-5), ALLAH (SWT) Says, “ ... And We Have Adorned the lowest heaven with lamps ...”. As was explained earlier, the lamps in this verse are the stars. The adoration of the lowest heaven with stars is clearly visible from earth, because there are trillions and trillions of stars. In cited verses #(3-35), the words “*adoration of the planets*”, means that the planets are adorned by something. Since the planets become visible only when there is a star nearby, therefore, those things that adorn the planets are the nearby stars. Generally, the size of a star is much bigger than the size of a planet. Planets in the vicinity of a star are forced to move in orbits around the star due to its greater gravitational force. The planets that are adorned by stars are most likely part of a solar system. The above two cited verses indicate that *the lowest heaven is adorned by individual stars, and stars forming solar systems other than ours.* These two verses also indicate that in the lowest heaven, there is a great number of solar systems other than ours. The following very important conclusion may be drawn from cited verses #(3-35) and cited verses #(3-5) :-

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

إِنَّا زَيْنَّا السَّمَاءَ الدُّنْيَا بِزِينَةِ الْكَوَاكِبِ ﴿٦﴾ وَحِفْظًا
 مِنْ كُلِّ شَيْطَانٍ مَّارِدٍ ﴿٧﴾ لَا يَسْمَعُونَ إِلَى الْمَلَأِ الْأَعْلَى وَيُقَذَّفُونَ مِنْ
 كُلِّ جَانِبٍ ﴿٨﴾ دُحُورًا وَلَهُمْ عَذَابٌ وَاصِبٌ ﴿٩﴾ إِلَّا مَنْ خَطِفَ الْخَطْفَةَ
 فَأَتْبَعَهُ شِهَابٌ ثَاقِبٌ ﴿١٠﴾

سورة الصافات

الجزء الثالث والعشرون

Cited Verses # (3-35)

In The Name of ALLAH, Most Gracious, Most Merciful

We Have Adorned the lowest heaven with the adoration of the planets. And secured from every obstinate devil. They do not eavesdrop to the exalted assembly and they are thrown at from every side. Annihilated and for them there is a severe torture. Except that who snatches something is then followed by a piercing meteoroid.

(part 23, Surat Al Saffaat “Those Ranged in Ranks”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

إِذْ قَالَ
 يُوسُفُ لِأَبِيهِ يَا أَبَتِ إِنِّي رَأَيْتُ أَحَدَ عَشَرَ كَوْكَبًا وَالشَّمْسَ وَالْقَمَرَ
 رَأَيْتُهُمْ لِي سَاجِدِينَ ﴿٤﴾

سورة يوسف

الجزء الثاني عشر

Cited Verse # (3-36)

In The Name of ALLAH, Most Gracious, Most Merciful

For Yusuf said to his father, “Oh my father, I did see eleven planets and the sun and the moon, I saw them prostrate themselves to me”.

(part 12, Surat Yusuf “Joseph”)

THERE ARE MANY EXTRATERRESTRIAL SOLAR SYSTEMS AND PLANETS OTHER THAN OUR SOLAR SYSTEM AND ITS PLANETS.

CAUTION: AS WAS EXPLAINED EARLIER IN THIS CHAPTER, *NON OF THOSE EXTRATERRESTRIAL PLANETS IS IDENTICAL TO THE EARTH AND NONE HAS ATMOSPHERE IDENTICAL TO THAT OF THE EARTH.*

Just recently, astronomers have discovered extraterrestrial planets far beyond our solar system.

THE PLANETS IN OUR SOLAR SYSTEM

Our solar system is an infinitesimal part of the universe (the lowest heaven). However by earth standards, our solar system is huge. Up till now, information about our solar system is far from being complete. Discoveries in the universe (the lowest heaven), in general and in our solar system, in particular are done mainly by observations. In the beginning, the observations were done by the naked eye, then by primitive telescopes, and now by powerful earth telescopes and by the orbiting space telescope (Hubble Space Telescope). The ancient Egyptians had an advanced knowledge of astronomy, but unfortunately, it was not recorded or documented. According to the documented history of the science of astronomy, the orbital motions of the planets around the sun (in our solar system) were first described by Kepler (A Swiss astronomer). The dynamics of the planetary motions then were formulated mathematically by Newton (an English mathematician). For such calculations to be feasible, very simplified models must be assumed. With all the mathematical tools and the computers that exist today, it is still impossible to take into account even some of the realistic factors that govern the motions of all the planets in our solar system. That is why every now and then, a new discovery or a new theory surfaces. To have some feeling about the magnitude of this problem, Table (3-1) shows the huge diversity (by earth standards) in the sizes, the distances and the orbital times of the major nine planets in our solar system.

In recent years, it was discovered that there are several additional planets in our solar system. Those planets are called "*minor distant planets*". Some astronomers regard these planets as asteroids because they are very small and have unusual orbits that differ from the orbits of the nine major planets. It was just very recently that some astronomers wanted to re-classify the farthest of the nine major planets (Pluto) as an asteroid. However, most of the astronomical community rejected that. All the major planets, except the two inner planets (Mercury and Venus) have moons. Due to the proximity of Mercury and Venus to the sun, the sun's gravitational force would have attracted their moons, if they had any. Therefore, there is one common characteristic of the earth and all the outer six major planets. This common characteristic is that each has one or more

Table (3-1)

Planet	Diameter (Miles)	Distance from the sun (Miles)	Time of one revolution around the sun (earth time)
Mercury	3,100	36,000,000	88 days
Venus	7,700	67,250,000	224.7 days
Earth	7,918	93,000,000	365.25 days
Mars	4,220	141,700,000	1.88 years
Jupiter	88,700	484,000,000	11.86 years
Saturn	71,600	887,000,000	29.46 years
Uranus	32,000	1,787,000,000	84.02 years
Neptune	31,000	2,797,000,000	164.79 years
Pluto	3,600	3,675,000,000	248.43 years

Sun's Diameter : 865,000 Miles

Sun's surface temperature : 11,000 degrees F.

Sun's core temperature : 35,000,000 degrees F.

Earth's moon diameter : 2,160 Miles

Earth's moon distance from the earth : 221,463 Miles

moons. Accordingly, any minor distant planet may maintain the status of a planet, if it has a moon or more. One of the new discoveries is an asteroid named *Ida*. This asteroid has irregular shape. It is about 32 miles (52 kilometers) long, which is very small to be classified as a planet. However, this asteroid *Ida* has a moon, named *Dactyl*. If the same planetary common rule applies (each outer planet has a moon or more), this tiny *Ida* may be considered to be one of the distant minor planets. There may be other minor distant planets with a moon or more. In fact, ALLAH (SWT) Directs our attention to this issue.

Cited verse #(3-36) presents a part of the story of Prophet Yusuf (Joseph). In this verse, Yusuf told his father that he has seen (in a dream) that eleven *planets* and the sun and the moon are kneeling (face down) to him (Yusuf). At the end of the story (at the end of the Surah), the eleven planets represented Yusuf's brothers, the sun and the moon represented his father and his mother. The Holy Qur'an is ALLAH's words. Every single word is chosen to give precisely the intended meaning. In this verse, there is a similarity between the words and what they represent. The father is the provider for the family, that is the family's energy source (the sun). The mother is the one with kindness and compassion and cares for the children. She is the shining light of the family (the moon). The children are raised around both the father and the mother (the planets). The dreams are always symbolic and may be unexplained. However, the dreams of the Prophets either express a message from ALLAH (SWT) or reveal some real events. In order to convince the people of the truth of ALLAH's message, ALLAH (SWT) Has provided

each Prophet with a miracle to be performed by the Prophet. The miracle provided by ALLAH (SWT) to Prophet Yusuf, is the ability to explain the dreams.

In cited verse #(3-36), Prophet Yusuf 's dream represented an event that happened years later. In the complete Surah (Surat Yusuf), Prophet Yusuf interpreted the dreams of his two fellow inmates while he was in the prison, and also he interpreted the dream of the king of Egypt after he got out of the prison. However, he (Prophet Yusuf) did not explain his own dream [cited verse #(3-36)]. He only recognized it years later (Surat Yusuf). If there were any interpretation for Yusuf 's dream other than its direct meaning, he (Yusuf) would have interpreted it as he did for the dreams of the other people. This indicates that ALLAH (SWT) is Telling about a phenomenon of His creation by Making the analogy as given by the verse. The following may therefore be concluded :-

THERE ARE ELEVEN PLANETS IN OUR SOLAR SYSTEM. EITHER TWO YET TO BE DISCOVERED OR TWO OUT OF THE MANY MINOR DISTANT PLANETS SHOULD BE CLASSIFIED AS ADDITIONAL PLANETS TO THE NINE MAJOR ONES.

THE REMAINING MINOR DISTANT PLANETS SHOULD BE CLASSIFIED AS ASTEROIDS.

Eventually, this will be realized someday, as the science and technology continue to advance. Our solar system is a complete dynamic system. The motion of the earth is influenced directly by the sizes, the distances and the gravitational forces of all the other planets. Knowing the exact number and the physical information of the planets in our solar system enables us to compute more accurately the earth's motion. Such knowledge may lead to better understanding of the occurrence of the earth's natural events, such as earthquakes and volcanoes.

EARLY IN 2004 ASTRONOMERS HAVE DISCOVERED (FROM IMAGES OBTAINED BY HUBBLE SPACE TELESCOPE) A NEW PLANET IN OUR SOLAR SYSTEM. THEY NAMED THIS NEW PLANET "SEDNA". THIS PLANET DIAMETER IS ABOUT 1000 MILES, IT IS ABOUT 8 BILLION MILES FROM THE SUN, ITS TEMPARATURE IS ABOUT -400 DEGREES FAHRENHEIT, AND ITS YEAR (TO COMPLETE ONE REVOLUTION AROUND THE SUN) IS EQUAL TO 10,000 EARTH YEARS.

FORMATIONS OF THE STARS

To the present date astronomers know very little about the stars. The study of the stars is done mainly through observations. The data accumulated from the observations gives very limited information, such as the size of the star, its distance from the earth, its

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

تَبَارَكَ الَّذِي جَعَلَ فِي السَّمَاءِ

بُرُوجًا وَجَعَلَ فِيهَا سِرَاجًا وَقَمَرًا مُنِيرًا ﴿٦١﴾

سورة الفرقان

الجزء التاسع عشر

Cited Verse #(3-37)

In The Name of ALLAH, Most Gracious, Most Merciful

Blessed is He Who Made constellations in the heaven and Made in it a shining lamp and an illuminating moon.

(part 19, Surat Al Furqaan “The Criterion”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَالسَّمَاءِ ذَاتِ الْحُبُوبِ ﴿٧﴾ إِنَّكُمْ لَفِي قَوْلٍ مُتَخَلِّفٍ ﴿٨﴾

الجزء السادس والعشرون سورة الذاريات

Cited Verses #(3-38)

In The Name of ALLAH, Most Gracious, Most Merciful

By the heaven which has numerous precise paths. You are in a doctrine discordant.

(part 26, Surat Al Thaarīyat “The Winds That Scatter”)

luminosity, and what kind of gas it is formed from. There are many unanswered questions regarding the mere existence of the stars, their function, their locations and their distribution in the universe (the lowest heaven). No scientific community has ever been able to answer some of these questions. However, in the Holy Qur’an, ALLAH (SWT) Gives some hints to direct us to the right approach to know more about the stars.

In cited verses #(3-5), ALLAH (SWT) Tells that He Has Adorned the lowest heaven with lamps. We have learned that these lamps are the stars. One of the functions of the stars is the adoration of the lowest heaven. In cited verse #(3-32), ALLAH (SWT) Tells

that He Has Made for us the stars as beacons, to guide us in the darkness of the land and the sea. We have learned that for the stars to be beacons, they have to be recognizable. That is, they have to be in certain formations and at constant locations relative to the earth. Another function of the stars is to act as beacons.

In cited verse #(3-37), ALLAH (SWT) Tells that He Has Made constellations in the heaven (the lowest heaven). A constellation is a formation of fixed stars. The shapes of the constellations are fixed and do not change. However, the angles at which these constellations appear to an observer from the earth are related to the location of the earth in its orbit around the sun. The angular orientation of the constellations relative to the earth determines the solar year calendar and the solar year duration. These angular orientations change very slightly over the years (due to the earth's wobbling motion and also due to the motion of the sun along its orbit). Another function of the stars and their formations is to identify the seasons and the solar year.

As mentioned earlier in this chapter, when ALLAH (SWT) Swears, He Swears by Himself or by one of His creations. When ALLAH (SWT) Swears by one of His creations, He Emphasizes the greatness of this particular creation. In the mean time, He is Bringing such phenomenon to our attention in order to study it thoroughly, to gain more knowledge about His creation. In cited verses #(3-38) ALLAH (SWT) Swears by one of the characteristics of the lowest heaven. He Says, "By the heaven which has numerous precise paths". We have learned earlier in this chapter that the lowest heaven is a huge enclosure where all the celestial objects are contained within. All those celestial objects (stars, galaxies, quasars, nebulae, etc.) are in continuous motions. In these verses ALLAH (SWT) Tells that all the celestial objects are moving along precise trajectories.

When the science of astronomy was in its infancy, the telescopes were very primitive. Back then the astronomers were able to observe only a small fraction of the celestial objects. They thought that the voids between the objects are so large compared to the size of the objects. The more sophisticated telescopes were developed, the more celestial objects were observed. With the advent of the Hubble Space Telescope and the powerful computers, more and more luminous distant celestial objects are discovered. However, the non-illuminating celestial objects could not be observed, but they are there. That is the size of the voids between the celestial objects is not too large compared to the size of the celestial objects as was thought previously. Accordingly, the movements of the celestial objects within the comparatively limited voids, must be very precise. In some cases, celestial objects do merge into each other to form a new object.

From cited verses #(3-36) and #(3-37), we have learned that the formations of the stars (the constellations) maintain their recognizable shapes and they do not change with time. Meanwhile, they are moving along their own precise trajectories. The complexity of such phenomenon is mind boggling.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَلَوْ فَتَحْنَا عَلَيْهِمْ بَابًا مِّنَ السَّمَاءِ
فَظَلُّوا فِيهِ يَعْرُجُونَ ﴿١٤﴾ لَقَالُوا إِنَّمَا سُكِّرَتْ أَبْصَارُنَا بَلْ نَحْنُ
قَوْمٌ مَّسْحُورُونَ ﴿١٥﴾ وَلَقَدْ جَعَلْنَا فِي السَّمَاءِ بُرُوجًا وَزَيَّنَّاهَا
لِلنَّظِيرِينَ ﴿١٦﴾

سورة الحجر

الجزء الرابع عشر

Cited Verses #(3-39)

In The Name of ALLAH, Most Gracious, Most Merciful

And even if We Opened on them a gate from the heaven, and they were to continue moving through it. They would say, “our eyes have been intoxicated, or may be we are bewitched by sorcery”. And We Have Made constellations in the heaven and Adorned it for the observers.

(part 14, Surat Al Hejr “The Rocky Tract”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

فَلَا أُقْسِمُ بِمَوَاقِعِ النُّجُومِ ﴿٧٥﴾ وَإِنَّهُ لَقَسَمٌ لِّوَتَّعْلَمُونَ عَظِيمٌ ﴿٧٦﴾

سورة الواقعة

الجزء السابع والعشرون

Cited Verses #(3-40)

In The Name of ALLAH, Most Gracious, Most Merciful

And I Do Swear by the locations of the stars. And indeed, it is a mighty adjuration, if you know.

(part 27, Surat Al Waage’ah “The Inevitable Event”)

In the first two verses of cited verses #(3-39), ALLAH (SWT) Says, “And even if We Opened on them a gate from the heaven, and they were to continue moving through it. they would say, our eyes have been intoxicated, or may be we are bewitched by sorcery”. Notice in the first of these verses the words, *opened on them*. The meaning of these words differs from the meaning of the words “opened to or for them”. In the Arabic language, when saying “*open on them*”, this means that while they are in their location, something came to them or something happens to them. On the other hand, when saying “*open to or for them*”, this means that a certain avenue has been opened to them so they can go through it at their will with no restrictions. The next words in the verse are “*a gate from the heaven and they were to continue moving through it*”. The Arabic word used for the word “*moving*”, is “*ya’rujoon*”, which is the plural of the verb “*ya’ruj*”. As was explained earlier, the Arabic verb “*ya’ruj*” means to move through outer space, that is moving through the heaven. The word “*to continue*” indicates the continuous action of “*ya’ruj*”, that is the whole action would take place in outer space. The words “*opening a gate from the heaven*” indicate that the motion through the deep outer space is restricted and limited to certain corridors. Therefore, the meaning of this verse would be, *and even while they are in outer space, if ALLAH (SWT) Allowed them to go deeper into space by opening a corridor for them, they will become dazed and disoriented and they will lose control of themselves.* In this verse, ALLAH (SWT) Tells that the humans will be able to go to outer space. However, their travel into outer space will be restricted and limited. They can not go beyond a certain threshold. If ALLAH (SWT) Allowed them to go beyond this threshold, they will be completely disoriented and will lose control of themselves, so they will not be able to function normally. More about travel into outer space is presented in Chapter 4.

There are several factors that restrict the motion through the deep outer space. The main factors are, the gravitational fields of the celestial objects, in our solar system and beyond, the asteroids and the meteoroids, and the strong electromagnetic waves. There are thousands of asteroids forming the so-called asteroid belt, between the orbits of Mars and Jupiter. The asteroids and the meteoroids move with great speeds. They can destroy any man-made spacecraft, if it comes in their way. The strong electromagnetic waves may disrupt the normal operation of the electronic systems, and even they pose significant danger to human life. The lack of gravity in outer space causes the humans to be disoriented and lose the sense of direction. Extended periods of space travel, may affect adversely the human brain as well as the vital organs. Such adverse effects will result in physical malfunction and loss of control.

In cited verses #(3-40), ALLAH (SWT) not only Swears by one of His creations, but also Emphasizing the greatness of such creation. He also Tells that we humans will realize the greatness of such creation if we have the proper knowledge. This great phenomenon that ALLAH (SWT) Has Created is the locations of the stars in the lowest heaven. In the past, it was thought that the stars are distributed randomly. But now, with more sophisticated equipment, the Hubble Space Telescope provided much more accurate images of the illuminating celestial objects. Those images revealed that the stars

and the galaxies are distributed with extremely intricate and ordered patterns. These ordered distributions of the stars could have never been evolved or formed after the creation process has ended. In cited verses #(3-5), ALLAH (SWT) Tells that He Has Created the seven heavens and Adorned the lowest heaven with lamps (stars) in the last two days of creation. This indicates that the creation and the distribution of the stars in the lowest heaven were completed in the last two days of creation. In order to be able to gain some knowledge about these Holy words, one of the basic laws of physics is presented next.

ALLAH (SWT) Has Created the laws of physics. Among those laws, is the law of conversion of matter to energy. In the 1930's Albert Einstein discovered the mathematical relation for the conversion of matter to energy. Such conversion led to the production of atomic energy, and unfortunately, to the building of the first atomic bomb in 1945. The reverse process of converting energy to matter, has not yet been discovered by mankind. All indications point to the fact that both processes (conversion of matter to energy, and conversion of energy to matter) are continuously going on in the universe (the lowest heaven).

Since light and heat are forms of energy, therefore, the stars may be recognized as *energy producers*. The energy production within the stars is achieved by means of the process of converting matter to energy. The matter (hydrogen) undergoes through a process known as "atomic fusion". Such process results in the release of tremendous energy. Some of the energy produced by the stars somehow, undergo the reverse process of converting energy to matter (dark matter). Since the distribution of the dark matter is vital for maintaining the structural integrity of the outer boundary of the lowest heaven, therefore, the energy producers (the stars, quasars, galaxies and others) must be properly located for such purpose.

The stars play a dominant role in maintaining the balanced dynamics of the universe (the lowest heaven). Because of their huge sizes, their gravitational forces are very strong. The stars do not only generate heat and emit light, they also emit very powerful electromagnetic waves. Motions of all celestial objects are completely controlled by the distribution of the gravitational and electromagnetic forces, that is, by the locations of the stars.

In cited verses #(3-5), ALLAH (SWT) Says, "... and We Have Adorned the lowest heaven with lamps (stars) and *for security*". In cited verses #(3-35), ALLAH (SWT) Says, "We Have Adorned the lowest heaven with the adoration of the planets. And secured from every obstinate devil". It was explained earlier that the adoration of the planets is the stars. In cited verse #(3-41), ALLAH (SWT) Says, "And We Have Adorned the lowest heaven with lamps (stars) and Made it a place for shooting at the devils, and We Have Prepared for them the torture of hell fire". From these verses, we learn that the stars have the additional task of guarding the lowest heaven from the devils. The devils are shot at by electromagnetic waves generated by the stars. The high energy end of the

electromagnetic radiation spectrum is the gamma ray. Exposure to gamma rays is fatal to any creature. Recently it has been discovered that the distant galaxies (probably the stars within) emit powerful bursts of gamma rays. If the stars are to perform the duties of security guards, they have to be located properly for such task.

As explained above, it is seen that the stars perform several functions. The distribution and the locations of the stars are essential for accomplishing their duties. Such locations are so vital for the preservation of the lowest heaven. That is why ALLAH (SWT) Swears by the locations of the stars and Says that it is a mighty adjuration, if you do have knowledge. From the above, the following may be concluded:-

THE STARS [AND IN PARTICULAR THOSE IN THE DISTANT GALAXIES] NOT ONLY GENERATE HEAT AND EMIT LIGHT, BUT ALSO EMIT POWERFUL ELECTROMAGNETIC WAVES [BURSTS OF GAMMA RAYS].

PART OF THE ENERGY PRODUCED BY THE STARS IS CONVERTED TO MATTER (DARK MATTER). THE PRODUCTION AND THE DISTRIBUTION OF THE DARK MATTER IS VITAL FOR PRESERVING THE STRUCTURAL INTEGRITY OF THE UPPER BOUNDARY OF THE LOWEST HEAVEN.

DUE TO THEIR OVERWHELMING GRAVITATIONAL AND ELECTROMAGNETIC FORCES, THE STARS PLAY A DOMINANT ROLE IN MAINTAINING THE BALANCED DYNAMICS OF THE UNIVERSE (THE LOWEST HEAVEN).

EXPANSION OF THE HEAVEN

In cited verse #(3-42) ALLAH (SWT) Says, “And the heaven We Have Built with power, authority and skill, and We are to continue expanding”. In this verse the words “heaven” in its singular form is used. As explained earlier, this identifies the lowest heaven (the universe). This verse indicates that ALLAH (SWT) Has first Completed the building of the lowest heaven then He is continuously Expanding it.

From cited verses #(3-5) we have learned that ALLAH (SWT) Has Created the earth first then created the seven heavens. This means that the creation proceeded in the outward direction from the earth. The lowest heaven is the first heaven surrounding the earth. Therefore, expansion of the lowest heaven must be in the outward direction from the earth.

The phenomenon of the expansion of the universe has been discovered by astronomer Hubble in the late 1920's. Hubble observed that the galaxies are moving away from the earth and from each other. Also Hubble observed that the distant galaxies from the earth

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَلَقَدْ زَيَّنَّا

السَّمَاءَ الدُّنْيَا بِمَصَابِيحَ وَجَعَلْنَاهَا رُجُومًا لِلشَّيَاطِينِ وَأَعْتَدْنَا

لَهُمْ عَذَابَ السَّعِيرِ ﴿٣٤﴾

سورة الملك

الجزء التاسع والعشرون

Cited Verse # (3-41)

In The Name of ALLAH, Most Gracious, Most Merciful

And We Have Adorned the lowest heaven with lamps and Made it a place for shooting at the devils, and We Have Prepared for them torture in the hell fire.

(part 29, Surat Al Mulq “The Dominion”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَالسَّمَاءَ بَنَيْنَاهَا بِأَيْدٍ وَإِنَّا لَمُوسِعُونَ ﴿٤٢﴾

سورة الذاريات

الجزء السابع والعشرون

Cited Verse # (3-42)

In The Name of ALLAH, Most Gracious, Most Merciful

And We Have Built the heaven with power, authority and skill, and We are to continue expanding.

(part 27, Surat Al Thaarî'yat “The Winds That Scatter”)

move away with faster speeds than the closer galaxies. Based on his observations, Hubble deduced the Hubble law. The speed at which the galaxies move away from the earth is directly proportional to the distance of the galaxies from the earth.

The earth is a planet in our solar system. Our solar system is located within the Milky Way galaxy. Our sun is among an estimated 200 billion stars in our galaxy. There are billions of other galaxies each contains hundreds of billions of stars. All the celestial objects (stars and other objects) are continuously moving along trajectories within their own galaxies. In the same time all the galaxies as separate units are moving within the universe (the lowest heaven). Hubble's law (observation) describes the motions of galaxies (not the individual stars) relative to the earth. According to Hubble's observations, the galaxies in all directions are moving away from the earth. Their speeds depend entirely on their distances from the earth (regardless of their relative positions to the earth). This could never be true unless their motions are unidirectional (outwards from the earth). That is the expansion of the heaven (the universe) is proceeding in the outward direction from the earth.

By the end of the creation of the seven heavens, ALLAH (SWT) Created the stars in the lowest heaven [cited verses #(3-5), explained in page 44]. Our sun is among the created stars. The earth cannot function the way it is without the existence of our sun, our moon, and the planets and their moons in our solar system. The motion of our sun along its orbit [Chapter 7] is influenced by the billions of stars in our galaxy, which in turn influence the performance of the earth. Since the creation started with the creation of the earth, therefore there is a strong indication that our galaxy may be the center of the lowest heaven (the universe). In such case, the motion of our galaxy may be only rotational. On the other hand the motion of all other galaxies are rotational as well as translation. The translation motion must be in the outward direction from our galaxy.

In all the verses of the Holy Qur'an, where ALLAH (SWT) Tells about the creation of the heavens and the earth, He Tells about their creation in the past tense [cited verse #(3-1), cited verse #(2-2), cited verse #(3-2), cited verse #(3-3), cited verse #(3-4), cited verses #(3-5), and so on]. This means that the creation of the heavens and the earth has been completed in the six days (six thousand lunar years) of creation, then the process of expanding the lowest heaven started and is still going on. From this we learn that the expansion process is different from the creation process. The following may be concluded :-

**EXPANSION OF THE LOWEST HEAVEN (THE UNIVERSE) IS A CONTINUOUS PROCESS. IT STARTED AFTER THE CREATION OF THE HEAVENS AND THE EARTH WAS COMPLETED.
THE EXPANSION PROCESS IS DIFFERENT FROM THE CREATION PROCESS. THIS INDICATES THAT THE PHYSICAL LAWS GOVERNING THE TWO PROCESSES ARE DIFFERENT.**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

أَوَلَمْ يَرَوْا أَنَّ اللَّهَ الَّذِي خَلَقَ السَّمَوَاتِ وَالْأَرْضَ وَلَمْ يَئِمْ
بِخَلْقِهِنَّ بِقَدِيرٍ عَلَىٰ أَنْ يُحْيِيَ الْمَوْتَىٰ بَلَىٰ إِنَّهُ عَلَىٰ كُلِّ شَيْءٍ قَدِيرٌ ﴿٣٣﴾

سورة الأحقاف

الجزء السادس والعشرون

Cited Verse #(3-43)

In The Name of ALLAH, Most Gracious, Most Merciful

Do not they see that ALLAH Who Created the heavens and the earth and never got wearisome with their creation, is also Able to give life to the dead, yes indeed, verily He is capable of doing all things.

(part 26, Surat Al Ahqaaf “Winding Sand Tracts”)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

* إِنَّ اللَّهَ يُمَسِّكُ السَّمَوَاتِ وَالْأَرْضَ أَنْ تَزُولَا وَلَئِن زَالَتَا إِنْ أَمْسَكَهُمَا
مِنْ أَحَدٍ مِّنْ بَعْدِهِ إِنَّهُ كَانَ حَلِيمًا غَفُورًا ﴿٤١﴾

سورة فاطر

الجزء الثاني والعشرون

Cited Verse #(3-44)

In The Name of ALLAH, Most Gracious, Most Merciful

It is ALLAH Who Holds the heavens and the earth, lest they cease to exist, and if they did cease to exist, there is none who can hold them thereafter, He was and always be the most kind, the One Who Forgives.

(part 22, Surat Faater “The Originator”)

IT IS MISTAKENLY BELIEVED THAT THE AGE OF THE UNIVERSE (THE LOWEST HEAVEN) IS ESTIMATED TO BE 13.5-15 BILLION LIGHT YEARS. THIS ESTIMATE IS BASED ON MEASUREMENTS USING RED SHIFT TECHNIQUE. THIS WOULD BE TRUE IF THE UNIVERSE WAS NOT EXPANDING. IN SUCH CASE THE LINEAR RELATION BETWEEN THE SIZE AND THE AGE HOLDS. HOWEVER DUE TO THE EXPANSION OF THE UNIVERSE AND ACCORDING TO HUBBLE'S LAW (BASED SOLELY ON OBSERVATIONS) **THE EXPANSION IS EXPONENTIAL** WHERE THE SIZE GROWS MUCH FASTER AS TIME PROGRESSES. **ACCORDINGLY THE AGE OF THE UNIVERSE IS MUCH LESS THAN THE ESTIMATED VALUE.** AS STATED IN THE HOLY QUR'AN BOTH THE EARTH AND THE HEAVENS (THE UNIVERSE AND BEYOND) HAVE THE SAME AGE.

THE POWER OF ALLAH (SWT)

In cited verse #(3-43), ALLAH (SWT) Says, “Do not they see that ALLAH Who Created the heavens and the earth and never got wearisome with their creation ...”. As we have learned earlier in this chapter, the creation began when ALLAH (SWT) Caused the massive entity (that was joining the heavens and the earth together) to disintegrate violently. Such disintegration produced the necessary constituents and the environment for the creation of the heavens and the earth. Looking closely at the words (in the Arabic language) of cited verse #(3-1), we see that the disintegration of the massive entity was not caused by explosion, as we know it. *The disintegration of the massive entity was caused by subjecting it to an incredible and most powerful energy source.* Explosions occur due to sudden release of energy within a very short period of time. The released energy due to explosion dissipates after a short while. *The smoke that resulted from the disintegration of the massive entity lasted for four thousand lunar years [four days in the sight of ALLAH (SWT), from the onset of the disintegration to the beginning of the formation of the seven heavens, cited verses #(3-5)].* Creation of the earth and the heavens took 6000 lunar years. During this time, the powerful energy source that disintegrated the massive entity had to continue supplying energy for the creation stages. That ultimate energy source is ALLAH (SWT), cited verse #(1-6).

According to the laws of physics, which is created by ALLAH (SWT), the energy needed for the creation had to be greater than the energy produced by all the created objects. The energy produced by our sun is so huge that by our human standards is immeasurable. There are trillions and trillions of stars in the lowest heaven (the universe), some of them are millions of times larger than our sun. We can not even dare to imagine the amount of energy produced by them. From cited verse #(3-43) we learn that even after ALLAH (SWT) Has Provided the energy for the disintegration of the massive entity and the creation of the heavens and the earth, His energy has not been affected or reduced. He is still and will be forever The Ultimate Energy Source.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 وَمِنْ كُلِّ شَيْءٍ خَلَقْنَا زَوْجَيْنِ لَعَلَّكُمْ تَذَكَّرُونَ ﴿٤٥﴾
 الجزء السابع والعشرون سورة الذاريات

Cited Verse # (3-45)

In The Name of ALLAH, Most Gracious, Most Merciful

And of every thing We Have Created a pair, that it may be a reminder for you.

(part 27, Surat Al Thaari'yat "Winds That Scatter")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 سُبْحَانَ الَّذِي
 خَلَقَ الْأَزْوَاجَ كُلَّهَا مِمَّا تُنْبِتُ الْأَرْضُ وَمِنْ أَنْفُسِهِمْ وَمِمَّا لَا يَعْلَمُونَ ﴿٣٦﴾
 الجزء الثالث والعشرون سورة يس

Cited Verse # (3-46)

In The Name of ALLAH, Most Gracious, Most Merciful

Glory to Him [ALLAH (SWT)], Who Created all the pairs from what the earth grows and from themselves and from what they do not have knowledge of.

(part 23, Surat Yaaseen "Yaaseen")

In cited verse # (3-44), ALLAH (SWT) Says that He is The Only One Who Holds the heavens and the earth, lest they cease to exist. For the heavens and the earth to exist and to function they need a continuous supply of energy. This continuous supply of energy is provided by ALLAH (SWT). If ALLAH (SWT) Stopped supplying energy to the heavens and the earth, they will not only cease to function, they will cease to exist. Our human mind is incapable of understanding the basics of the creation of the heavens and the earth. How could we ever question or doubt the power and the knowledge of ALLAH (SWT).

EVERY THING IS CREATED IN PAIRS

In cited verse #(3-45), ALLAH (SWT) Says, “And of every thing We Have Created a pair, that it may be a reminder for you”. In this verse ALLAH (SWT) Tells about one of the most basic principles of His creation. The creation of everything in pairs. In this verse, ALLAH (SWT) is Reminding us that there is a fundamental difference between the Creator and the created. ALLAH (SWT) is the only ONE, nothing is similar or equivalent to Him, cited verses #(1-7), He Has no counterpart, while all the creatures of all kinds are created in pairs.

In cited verse #(3-46), ALLAH (SWT) Gives more information about this phenomenon. In this verse, He Tells that He Has Created all the pairs from what the earth grows (i.e. vegetation), from themselves (i.e. all living creatures including humans), and from what we do not have knowledge of (i.e. from something that the human mind is incapable of understanding).

THE PAIR IS NOT NECESSARILY OPPOSITES IN GENDER. IT MAY BE OPPOSITES IN CHARACTERISTICS, IN FUNCTIONALITY, OR IN BEHAVIOR.

Matter, whether it is solid, liquid or gas is formed from atoms. The atoms are composed of neutrons, protons and electrons. For each particle of matter, there is an “anti-particle”, that is an “anti-matter”. The particle and the “anti-particle” are basically the same, except that each possesses an opposite electric charge. The electron has a negative charge, while the anti-electron (the positron) has positive charge. The proton is positively charged, while the anti-proton is negatively charged, and so on. The matter and the anti-matter do exist in the universe (the lowest heaven). But whenever matter and anti-matter collide, they annihilate each other, thus producing electromagnetic radiation in the form of neutral light particles, photons. Since every thing is composed of particles, therefore every thing has a counterpart that is composed of anti-particles. The human knowledge in the field of particle physics is still very limited. That is why in cited verse #(3-46), ALLAH (SWT) Says, “ ... and from what they (we humans) do not have knowledge of”.

THE HEAVENS-EARTH CONNECTION

From each verse in the Holy Qur'an we learn more about ALLAH's creation. One of the most controversial issues that people argue about is, does this vast universe (the

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

* اللَّهُ

الَّذِي سَخَّرَ لَكُمْ الْبَحْرَ لَتَجْرِيَ أَلْفُكُ فِيهِ بِأَمْرِهِ، وَلِتَبْتَغُوا مِنْ فَضْلِهِ،
وَلَعَلَّكُمْ تَشْكُرُونَ ﴿١٢﴾ وَسَخَّرَ لَكُمْ مَّا فِي السَّمَوَاتِ وَمَا فِي الْأَرْضِ
جَمِيعًا مِّنْهُ إِنَّ فِي ذَلِكَ لَآيَاتٍ لِّقَوْمٍ يَتَفَكَّرُونَ ﴿١٣﴾

سورة الجاثية

الجزء الخامس والعشرون

Cited Verses #(3-47)

In The Name of ALLAH, Most Gracious, Most Merciful

It is ALLAH Who Has Subjected the sea to you, that the ships may sail through it by His command, that you may seek of His bounty, and that you may be grateful. And He Has Subjected to you, by His authority, all what is in the heavens and in the earth, behold, in that are signs indeed for those who think.

(part 25, Surat Al Jaathiyah "Bowing The Knee")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَسَخَّرَ لَكُمْ اللَّيْلَ وَالنَّهَارَ وَالشَّمْسَ وَالْقَمَرَ وَالنُّجُومَ مُسَخَّرَاتٍ
بِأَمْرِهِ إِنَّ فِي ذَلِكَ لَآيَاتٍ لِّقَوْمٍ يَعْقِلُونَ ﴿١٤﴾

سورة النحل

الجزء الرابع عشر

Cited Verse #(3-48)

In The Name of ALLAH, Most Gracious, Most Merciful

And He Has Subjected to you the night and the day and the sun and the moon and the stars are subjected by His command, verily in this are signs for those who are wise.

(part 14, Surat Al Nahl "The Bees")

lowest heaven) affect the human life one way or another ?. From ALLAH's words in the Holy Qur'an, the answer to this question is YES.

In the first verse of cited verses #(3-47), ALLAH (SWT) Tells about some of His creation that He Has subjected to us. In this verse, He Tells about undeniable facts that we visualize and practice every day. This is to prepare us to accept the other facts presented in the second verse. In the second verse of cited verses #(3-47), ALLAH (SWT) Says, "And He Has Subjected to you all what in the heavens and in the earth ...". The sequence of the two verses, indicates that the information unrecognizable to us presented in the second verse are facts similar to the recognizable information presented in the first verse. From this second verse we learn that all ALLAH's creation in all the heavens (the seven heavens) and the earth are functioning for the benefit of mankind. *This is a clear indication that there is a strong interaction between all the heavens and the earth.* Such interaction provides the earth with the necessary elements for making it inhabitable.

It is known that our sun is necessary for sustaining life on earth. Also it is known that our moon and the planets in our solar system and their moons are necessary for maintaining the accurate motion of the earth around the sun. Our solar system is a very tiny part of our galaxy (the Milky Way). The billions of stars in our galaxy, and so our solar system are continuously moving. They interact with each other according to physical laws not known to mankind. The billions and billions of other galaxies are also moving constantly and interact somehow with each other and with our galaxy. Those unimaginable motions and interactions are happening in the lowest heaven (the universe). The upper six heavens, which we do not know anything about, must also be interacting somehow with the lowest heaven. The following may therefore be concluded :-

THERE IS A STRONG INTERACTION BETWEEN THE HEAVENS AND THE EARTH. SUCH INTERACTION MAKES THE CONDITIONS ON THE EARTH THE WAY THEY ARE.

This confirms what we have learned earlier in this chapter, that the rain, the directions and the strength of the wind, as well as all other natural events on the earth are triggered by events occurring in the heavens, cited verses #(3-10) and #(3-30).

At the end of cited verses #(3-47), ALLAH (SWT) Says, "... in that are signs indeed for those who think". ALLAH (SWT) Wants us, humans to think about His creation. He Wants us to expand our knowledge as much as we can. He Created us and He Knows the capabilities and limitations of our mind. In the Holy Qur'an, ALLAH (SWT) Has given information as well as clues and pointers about some of His creation. By giving us the clues and the pointers, ALLAH (SWT) is Telling us that our mind is capable of understanding this particular phenomenon and that we have to study and learn more about it. The human mind will never be able to comprehend many of ALLAH's creation. In such cases, ALLAH (SWT) Does not give us any information, clues or pointers. For

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
هُوَ الَّذِي يُرِيكُمْ آيَاتِهِ وَيُنَزِّل لَكُمْ
مِنَ السَّمَاءِ رِزْقًا وَمَا يَتَذَكَّرُ إِلَّا مَنْ يُنِيبُ ﴿٤٩﴾
الجزء الرابع والعشرون سورة غافر

Cited Verse # (3-49)

In The Name of ALLAH, Most Gracious, Most Merciful

It is He Who Shows you His signs, and Sends down for you from the heaven sustenance, and it is only those who rely on Him will keep that in mind.

(part 24, Surat Ghaafer "Who Forgives")

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
أَمَّنْ يَبْدَأُ الْخَلْقَ ثُمَّ يُعِيدُهُ
وَمَنْ يَرْزُقُكُمْ مِنَ السَّمَاءِ وَالْأَرْضِ أَءَلَّهُ مَعَ اللَّهِ قُلْ هَاتُوا بُرْهَانَكُمْ
إِنْ كُنْتُمْ صَادِقِينَ ﴿٦٤﴾
الجزء العشرون سورة النمل

Cited Verse # (3-50)

In The Name of ALLAH, Most Gracious, Most Merciful

Or Who Originates the creation then Repeats it, and Who Gives you sustenance from the heaven and the earth, Is there a god with ALLAH, say bring forth your proof if you are telling the truth.

(part 20, Surat Al Naml "The Ants")

instance, ALLAH (SWT) Did not Give any clues in the Holy Qur'an about the characteristics of the upper six heavens (above the lowest heaven) and what in them, because such information is beyond the capabilities of the human mind.

In cited verse #(3-48), ALLAH (SWT) Tells about some of His creation which He Has subjected to us, humans (by His command). Similar to cited verses #(3-47), ALLAH (SWT) Started by Telling about some of His creation recognizable to us, that He Has Subjected to mankind. Every day we witness the day and the night, sunrise and sunset. Also during the lunar month we observe the different stages of the moon. If we believe, and we must, that ALLAH (SWT) Has Subjected these phenomena for our benefit, then we have to believe the remaining part of the verse. In the remaining part of the verse, ALLAH (SWT) Tells that in addition to the night and the day and the sun and the moon, He Has also Subjected to us, by His command, the stars. Some of the functions of the stars that we humans benefit from are explained earlier in this chapter.

In cited verse #(3-49), ALLAH (SWT) Says, "It is He Who Shows you His signs, and Sends down for you from the heaven sustenance ...". From this verse we learn that one of the signs that ALLAH (SWT) Shows us, is that He Sends to us our sustenance from the heaven. We do not provide sustenance for ourselves, it is ALLAH (SWT) Who Provides for us. When we farm the earth, it is not us who grow the plants, it is ALLAH (SWT) Who Does that. We have learned earlier in this chapter that the earth came to its final form and started to function when the creation of the seven heavens was completed. That is, the earth's environment and characteristics could never be the way they are without the strong interaction between the heavens and the earth. Also, we have learned that all natural events that occur on the earth are triggered by events in the heavens. Among those natural events that occur on the earth are the distribution of winds and the rain, cited verses # (3-10) and #(3-30). Without the rain there will be no rivers and no plants on the earth. The plants are the main food supply for almost all living species on the earth. This is a strong evidence that ALLAH (SWT) Sends to us our sustenance from the heaven.

In cited verse #(3-50), ALLAH (SWT) Says, "Or Who Originates the creation then Repeats it, and Who Gives you sustenance from the heaven and the earth ...". In the beginning of this verse we notice that the two verbs "*originates*" and "*repeats*" are given in their present tense form. This means that these actions are continuously going on. In all the verses in the Holy Qur'an whenever ALLAH (SWT) Tells about the creation of the heavens and the earth, He Uses the past tense "*created*". Therefore, in this verse the words "*originates*" and "*repeats*" do not refer to the creation of the heavens and the earth, nor they refer to the creation of humans (*birth*) and then their resurrection on judgment day. The beginning of the verse must be related to the remaining of the verse. That is, the two verbs "*originates*" and "*repeats*" refer to some of ALLAH's creation in the heaven and the earth, that are continuously originated, die then originated again, and are related to our sustenance. The life cycle of the plants on the earth, which are the major part of our sustenance, fits that description. The plant grows from seeds. It produces its fruits and new seeds. The new seeds grow new plants and so on. In the heaven (the lowest heaven)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

وَفِي الْأَرْضِ آيَاتٌ لِلْمُوقِنِينَ ﴿٢٠﴾ وَفِي أَنْفُسِكُمْ

أَفَلَا تُبْصِرُونَ ﴿٢١﴾ وَفِي السَّمَاءِ رِزْقُكُمْ وَمَا تُوعَدُونَ ﴿٢٢﴾

سورة الذاريات

الجزء السابع والعشرون

Cited Verses #(3-51)

In The Name of ALLAH, Most Gracious, Most Merciful

And in the earth are signs for those who comprehend. And in yourselves, do not you have sights ?. And in the heaven are your sustenance and your destiny.

(part 26, Surat Al Thaariyaat “The Winds that Scatter”)

the life cycle of the stars also fits the above description. The birth and the death of the stars is an observed phenomenon that is continuously going on. This leads to the following important conclusion :-

THE STARS HAVE MAJOR INFLUENCE ON THE NATURAL EVENTS THAT HAPPEN ON THE EARTH. IT MAY BE THE ENERGY THEY PRODUCE, THEIR LOCATIONS AND/OR THEIR FORMATIONS.

In cited verses #(3-51) ALLAH (SWT) Presents yet another compelling evidence that our sustenance and even our destiny are determined by events in the heaven. Glory to ALLAH (SWT), in these verses the beauty and the elegance of the presentation is overwhelming. In cited verses #(3-51), ALLAH (SWT) is Telling that in the earth there are numerous signs showing the greatness of His creation. Those signs are recognized only by the people of knowledge, who study, think and learn. Even for those who could not explore the wonders of ALLAH’s creation in the earth, they can see the wonders of His creation in themselves. They can look at their bodies and see the complexity and the intricate design features that only ALLAH (SWT) is Capable of creating. These are facts that are recognized and seen by the people of knowledge and the others. In the third verse of cited verses #(3-51), ALLAH (SWT) is Telling about another fact which is not recognized or seen by us. In this verse ALLAH (SWT) Says, “ And in the heaven are your sustenance and your destiny”. From this verse we learn the following fact :-

THE SUSTENANCE AND THE DESTINY OF EACH HUMAN WHO EVER LIVED OR WILL LIVE ARE PRE-ASSIGNED BY ALLAH (SWT) AND ARE KEPT IN A RECORD IN THE LOWEST HEAVEN.

SUMMARY AND CONCLUSIONS

The findings from Chapter 3 may be summarized as follows :-

- ◆ Water existed before the creation of the heavens and the earth. The Holy Throne was on the water before creation.
- ◆ Before the creation, the heavens and the earth were joined together in one entity. ALLAH (SWT) Caused this massive entity to disintegrate violently. The heavens and the earth were then created from what resulted from such violent disintegration and from water that existed before the disintegration occurred.
- ◆ The presence of water before the creation began suggests that water might have contributed somehow to the onset of the forcible disintegration.
- ◆ The heavens, the earth and *what in between them* were created in six thousands of our lunar years, that is 5825.24 of our solar years [six days in the sight of ALLAH (SWT)].
- ◆ In the first two days of creation (two thousands of our lunar years), ALLAH (SWT) Created the inner part of the earth (below the solid foundations).
- ◆ In the next four days of creation (four thousands of our lunar years), ALLAH (SWT) Made solid foundations on top of the earth, Bestowed blessings on the earth, and Established in it all its resources. During these four days of creation, ALLAH (SWT) Proceeded to the heaven while it was SMOKE (that resulted from the forcible disintegration of the massive entity) and Commanded it and the earth to follow His rules and laws. In the last two of these four days of creation , ALLAH (SWT) Formed and Arranged the seven heavens and Assigned in each heaven its functions and commands and Adorned the lowest heaven with lamps (stars). That is, ALL the stars are in the lowest heaven ONLY.
- ◆ The smoke that resulted from the violent disintegration of the massive entity lasted for four thousand lunar years [from the onset of the disintegration to the formation of the seven heavens]. The seven heavens were created from the smoke in the last two days of creation.
- ◆ The seven heavens are created in layers, one on top of the other. They are enclosures one inside the other. The earth is within the innermost enclosure (the lowest heaven).

-
- ◆ The solid foundations on top of the earth are not fixed rigidly to the layer beneath it. All earth resources are contained within the earth's crust and the solid foundations (tectonic plates) beneath the crust.
 - ◆ The earth's atmosphere was CREATED in the last two days of creation (two thousands of our lunar years). That is, during the creation of the seven heavens. IT DID NOT EVOLVE AFTER THE CREATION PERIOD HAS ENDED.
 - ◆ The earth and its atmosphere have unique qualities and characteristics. They are not duplicated anywhere in the heavens. That is, there is nothing identical to the earth and its atmosphere in the universe (the lowest heaven).
 - ◆ The domain of the lowest heaven (the universe) starts from the outer boundary of the earth's atmosphere and extends to the farthest star and beyond. Our sun, moon and the planets in our solar system (except the earth) and their moons are within the domain of the lowest heaven.
 - ◆ The earth's gravity was created with the creation of the inner part of the earth [beneath the solid foundations (tectonic plates)] during the first two days (two thousand lunar years) of creation. This suggests that the formations and the constituents of the earth's inner part generates the earth's gravitational force.
 - ◆ The earth started to spin and to move in an orbit around the sun by the end of the creation period.
 - ◆ There are huge water reservoirs beneath the earth's surface, within the crust layer.
 - ◆ The earth was bulged at the equator when it started to spin, after the creation of the seven heavens (at the end of the creation period). The formation of the mountains and the exit of water from beneath the earth's surface that grew pasture also resulted when the earth started to spin.
 - ◆ Most of the dark matter in the lowest heaven (the universe) is concentrated at its outer perimeter.
 - ◆ The outer perimeter of the lowest heaven (the universe) was constructed first from solid material, then all the celestial objects within were formed from the smoke.
 - ◆ There are great number of extraterrestrial solar systems and planets other than our solar system and its planets. None of the extraterrestrial planets is identical to the earth, and none has atmosphere identical to that of the earth.

- ◆ There are eleven planets in our solar system. In addition to the known nine major planets, two planets are yet to be discovered, or two of the minor distant planets should be classified as additional planets to the nine major ones. The remaining minor distant planets should be classified as asteroids.
- ◆ The distribution and the locations of the stars play a dominant role in maintaining the balanced dynamics and the structural integrity of the outer perimeter of the lowest heaven (the universe).
- ◆ The lowest heaven is expanding. The expansion started after the completion of the creation of the heavens and the earth. The expansion process is different from the creation process. The physical laws governing the two processes are different.
- ◆ Hubble's law of the expansion of the universe is an undisputable proof that the earth was created first then the heavens, as mentioned in the Holy Qur'an. It contradicts the common theory that the earth was formed long after the creation of the heavens.
- ◆ The energy produced by all the stars and all other celestial objects are negligible compared to the energy of ALLAH (SWT).
- ◆ ALLAH (SWT) Supplies continuous energy for the heavens and the earth to continue functioning. Without this continuous energy supply, the heavens and the earth cease to exist.
- ◆ ALLAH (SWT) Has Created everything in pairs. For each particle of matter, there is an "anti-particle", that is an "anti-matter".
- ◆ The stars have major influence on the natural events that occur on the earth. It may be the energy they produce, their locations and/or their formations.
- ◆ The sustenance and the destiny of each human who ever lived or will live are pre-assigned by ALLAH (SWT) and are kept in a record in the lowest heaven.