

Formation of the Universe from the Viewpoint of the Qur'an and Science

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ABSTRACT:

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In the matter of the formation of the universe, the holy Qur'an mentions various phenomena, each playing a special role in the evolution of the universe. In this article, we describe two celestial phenomena that have been discussed in verses (Q.21:30) and 41:11, and we assess the possibility of matching these two verses with new scientific findings.

Our approach in this study is that we first examine the plausible meanings of the verses through lexical, morphological, syntactic and interpretive analysis. Then we propose possible scientific phenomena compatible with achieved meanings of the verse and evaluate their conformity.

Results of this study show that the reference of the Qur'an to the two phenomena, i.e., "coalescence and separation of the skies and the earth," and "the formation of the sky from smoke," can be compatible with the scientific phenomena of the Big Bang, the formation of the solar system and the formation of the earth and its atmosphere.

KEYWORDS: Sky, Heaven, Creation, The Big Bang, Solar system, Atmosphere, Scientific interpretation of Qur'an.

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1. Introduction

Faith and science are two sources of knowledge. They both try to give an understanding of the truth by different languages and from diverse viewpoints that are not necessarily conflicting. Accordingly, efforts have been made to show the harmony of the Bible and the Qur'an with science on the issue of creation (Hartin, 1989; Hesseler, 1960; Matt, 1996, 'Arafāt, 2003; al-Fayyūmī, 2003; al-Jamīlī, 2000).

Many verses of the Holy Qur'an describe how the universe came into being in detail. In this article, we examine the possibility of conformity between two phenomena, among the various phenomena mentioned in the Qur'an, "*coalescence and separation of the skies and the earth*" (Q.21:30), and "*the formation of the sky from smoke*" (Q.41:11) with new scientific findings.

Several studies have been done on the scientific adaptation of these two verses with natural phenomena until now ('Arafāt, 2003, 32; al-Fayyūmī, 2003, 68; al-Jamīlī, 2000, 15). However, what makes this study different from the other is that we have a comprehensive look at the verses and their various semantic possibilities and we try to examine and to evaluate all possible scientific explanations regarding these verses. However, in similar studies, the verses have not been considered from this perspective and only a scientific phenomenon close to the meaning of the verse has been attributed to it.

Our method in investigating each phenomenon is as follows: first we discuss the main verse describing the phenomenon from the lexical, morphological, syntactic and interpretive point of view. Then, by considering the possible scientific explanations, we study the strengths and the weaknesses of each possibility. Because of the important role the word *samā'* (sky) has in both verses, before proceeding with the main discussion, we study briefly the applications of this word in the Holy Qur'an.

2. Applications of the Word *al-Samā'* (the sky) in the Qur'an

The word *samā'* is derived from the root *s-m-w* "height, altitude, sublimity" (al-Farāhīdī, 1988, 7:318; Ibn Fāris, 1979, 490; Ibn Manẓūr, 1993, 14:397; al-Zabīdī, n.d., 38:301). Al-Rāghib (1991, 427) ascribes that *samā'* of anything is the space above it. According to Ibn Fāris (1979, 490), the Arab uses the word *al-samā'* for anything high and preponderant. Hence, this word has a wide domain of meanings and it is frequently attested. Therefore, to determine its exact applicability in each verse, we need to regard the counterparts as well as the context. *Samā'* and its plural form,

samāwāt, have been used 310 times with and without the definite article in the Holy Qur'an.¹ Considering their different applications, one can deduce the following results:

1. Sometimes *samā'* is used with article and with an absolute meaning opposed to the word *arḍ* (the earth) and can mean all the skies (Q. 3:5; 14:38).
2. Sometimes it is used to mean celestial bodies (stars and planets) or their positions in the sky (Q. 25:61; 22:65; see Rezaei, 2009, 135; al-Ṣādiqī Tehrani, 1986, 20:167; al-Mughnīyah, 2003, 5:346; Mudarrisī, 1998, 8:113).
3. Sometimes it is used to mean the earth's atmosphere, clouds or rain. On this subject, one can mention the downfall of rain from the sky. It should be noticed that the word *samā'* has been used in singular form whenever the downfall of rain is concerned (Q. 30:48; 15:22; 71:11; see Makarem, 1995, 1:121; Jafari, 1997, 1:83; al-Ṭabrisī, 1993, 1:451, 4:428).
4. *Samā'* is sometimes used in the sense of immaterial heaven, and this is the case when it possesses the meaning of the location of immaterial phenomena (Q. 7:40; 67:16-17; see Tabataba'i, 1996, 16:248; Makarem, 1995, 6:170; Ibn 'Āshūr, 1999, 8:96, Qorashi, 1998, 408).

The word *samāwāt* is the plural form of *samā'* which is often used with definite article versus *al-arḍ*, and points to all the skies. As we know, using the definite article preceding a plural form indicates generality.

3. Coalescence and Separation of the Skies and the Earth

In the verse (Q. 21:30), God refers to the fact that the heavens and the earth were first connected and united, and then God separated them:

أَوَلَمْ يَرَ الَّذِينَ كَفَرُوا أَنَّ السَّمَاوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيًّا أَفَلَا يُؤْمِنُونَ (الانبیاء/30)

Did those who disbelieved not see that the skies/space and the earth, they were joined, so We split them?

In this verse, God Almighty says that the skies and the earth were joined and unified in the beginning, and then God Almighty split them. The word *ratq*, opposite of *fatq*, means to unify and to join and modify gaps (al-Farāhīdī, 1988, 5:126; Ibn Manzūr, 1993, 10:114). *Ratq* is said to have the meaning of coalescence too (al-Rāghib, 1991, 341; Ibn Manzūr, 1993, 10:114; al-Ṭurayhī, 1996, 5:166; al-Muṣṭafawī, 1981, 4:43). *Fatq* means to be opened

1. In total, the words *al-samā'*, *samā'*, *al-samāwāt* and *samāwāt* have been used 118 times, 2 times, 185 times and 5 times respectively.

or a gap in something (Ibn Fāris, 1979, 834). According to al-Farāhīdī (1988, 5:130) anything unified which has been split is called *fātq*.

The verb *kānatā* in the first clause has been used in binary form, since its pronoun refers to the words *al-samāwāt* and *al-aṣḥ*. The form *ratqan* which has been used in singular form, is the subject of the verb *kānatā* and so, according to the general rule, should be in binary form. Some commentators believe that since this word is infinitive, it is used with plural, binary and singular nouns in the same way (al-Ṭūsī, 2010, 7:243), even though it has a passive participle, namely *martūq*¹ (Tabatabaʿī, 1996, 14:278). Al-Zamakhsharī (1986, 3:113) claims that the word *ratq*, herein, is as an adjective for the omitted noun and implies “those two were a unified thing” (*kānatā shayan ratqan*)². However, some argue that it implies “those two had coalescence” (*kānatā zawāṭay ratq*)³ (al-Ṭabrisī, 1993, 7:72; al-Rāzī, 1999, 22:137).

Considering each of these implied meanings in the verse, causes the presumption of a different meaning. In other words, if the implied meaning of the verse in question is taken to be “those two were a unified thing” (*kānatā shayan ratqan*), the meaning of the verse will be that the skies and the earth were single and unified. However, if the implied meaning of the verse is “those two had coalescence” (*kānatā zawāṭay ratq*), then the meaning of the verse will be that each of the skies and earth have their own special coalescence (*ratq*) separately. In other words, the skies were connected together and the earth was distinctly self-connected.

Interestingly the words in the verse have been used in a way that both tacit forms above are acceptable, and no reason can be presented to reject one and prefer the other. Therefore, it leads one to state that the verse can contain both meanings.

3.1. The Possible Scientific Explanations of the Verse

Depending on which coalescence and separation from the scientific point of view is concerned particularly by the Holy Qur’an, a number of possibilities are considered:

1. The coalescence considered is unification of everything, including the materials of the earth and the sky, in the very early stages of the universe right away after the Big Bang and the separation of them is referred to the rapid expansion occurred thereafter which has led to the formation of the sky and the earth as they are today.

1. مرتوق

2. كاننا شيئاً رتقاً

3. كاننا ذواتي رتق

2. The coalescence here is the union and the unification of the sun, the earth and other planets of the solar system inside the primary nebula, which was the origin of the formation of the solar system. The separation, then, is considered to be the evolution of the nebula and final formation of the solar system as it can currently be seen.
3. The coalescence is taken to be the separate unification in the skies and in the earth, and is related to the era when the downfall of rain from the sky and the growth of plants on the earth had not yet begun. In other words, the sky being connected and unified means the lack of rainfall, and the earth being connected and unified means the lack of plant growth from it. Thus, the phenomenon of the separation and splitting of the skies and the earth is in accordance with the beginning of the initial rains from the sky and the growth of the first plants from the earth. It is worth noting that this point of view has confirmation from tradition.¹

3.2. Investigating the Strengths and Weaknesses of the Possible Explanations

After presenting the possible explanations for the phenomenon of the coalescence and the separation of the skies and the earth from the scientific viewpoint, we examine each of these possibilities and their accuracy:

3.2.1. The First Possibility

As mentioned earlier, in this possibility the coalescence is considered the unification of the material of the earth and the sky at the beginning of the Big Bang and their separation means the rapid expansion of that initial point that led to the formation of the universe according to the Big Bang theory.

The Big Bang theory has the most acceptance among the theories that explain the origin and evolution of the universe. This theory claims the universe we are observing today was formed from the high-speed expansion of one point, approximately 14 billion years ago. The universe has continued expanding thereon. The theory is in agreement with the following observations:

1. It has been quoted from Imam Al-Bāqir (PBUH) when asked about the meaning of this verse: "the sky was unified and connected and there was no rainfall and the earth was unified and connected and there was no plant growth from it, then God Almighty opened the sky with the rainfall and the earth with plants" (Al-Qomī Al-Mashhadī, 1989, 8:409).

1. Expansion of the universe. Edwin Hubble observed that the galaxies are distancing away from us in 1929.
2. The abundance of light elements, namely, hydrogen, helium and lithium. The Big Bang theory predicts the abundance of these light elements that must have been formed from the fusion of the protons and neutrons in the first few minutes after the Big Bang very accurately.
3. Cosmic microwave background radiation (CMB). The universe at its early stages must have been very hot and the cosmic microwave background radiation is cooled radiation of the hot early universe.

Although the Big Bang theory is almost universally accepted and supported by several evidences, current science has almost no accurate knowledge of the initial material of the pre-Big Bang universe¹ and what happened in the early moments of the Big Bang. For example, questions about how a pre-Big Bang scenario would be like and what conditions caused the Big Bang to happen, are still unanswered. Although different theories have been considered to explain the cause of the Big Bang, none of them has universal acceptance yet (Coles & Lucchin, 2003).

According to what was said, it seems that the Big Bang can be an example of the *ratq* and *fatq* discussed in the Qur'an. The Big Bang theory says the universe started from a rapidly expanding point. Therefore, this can be described as the unification between the heavens and the earth, as the Qur'an says. The expansion continued, and over a long period of time nebulas, galaxies, stars, other observable astronomical structures and finally the Earth emerged. This can also be an example of the separation of the heavens and the earth. It also shows why in this verse *al-samāwāt* (the heavens) is used in plural form (versus the earth) since several separations had to occur in the heavens (galaxies, galaxy clusters, nebulas, etc.) in order the earth to form.

Thus, it seems that the Big Bang theory cannot be ruled out as an example for *ratq* and *fatq*. In other words, the Big Bang theory seems to be in harmony with the Qur'an's view of the formation of the heavens and the earth.

1. It is worth quoting these phrases from Bojowald (2007): "Complete predictions and explanations of observations can only be made for the finite part starting after the Big Bang. In the traditional Big Bang picture, speaking of 'before the Big Bang' is meaningless. In this traditional picture, the Big Bang is preceded by a singularity where the theory breaks down. The singularity is a theoretical limitation, rather than a physical beginning. Quantum gravity can provide solutions extending through the classical singularity. Yet, limitations to observations of some, but not all, pre-Big Bang properties exist. Although a general demonstration of pre-Big Bang era is still lacking, calculations, and possibly future indirect observations, may allow us to see the Universe as it was before the Big Bang."

3.2.2. *The Second Possibility:*

In this possibility, the coalescence intended is the connection and union of the solar system inside the primary nebula. By separation, the formation of the solar system is considered. The most common assumption about the formation of the solar system is the nebula assumption. According to this scenario, the mass constituting the solar system is a fragment of a molecular cloud that began to split to form the sun and the planets 4.6 billion years ago. This nebula, which consists of heavy and light elements swirls slowly and collapses in different regions inside it due to its gravitational force. At the center of this nebula, the pre-sun that contains more than 99 percent of the whole matter, condenses and warms up to a temperature needed for the nuclear fission to initiate. The other contracted parts form other planets, the satellites and comets (Bland et al, 2004).

On the coincidence of this assumption with the coalescence and separation of the skies and the earth in the Holy Qur'an, one should mention there is a possibility that relates these phenomena to the formation of the solar system and separation of the earth from initial molecular cloud. The only remaining problem is that in this case we must impose on the word *al-samāwāt* in the verse, the sun and the other planets of the solar system. As it was explained in detail, the word *al-samā'* refers to anything that is placed aloft. Hence, the planets can be taken to be evidences for this word. But in this case, the meaning of the word *al-samāwāt* is restricted to the sun and the planets (or at most the whole solar system), despite the mentioned generality of this word possessing the meaning "all the skies."

As a conclusion, since there is no evidence in the verse for this restriction, one cannot firmly state its truth. In addition, it should be mentioned that the number of planets in the solar system excluding the earth is also seven, in agreement with the number of the skies mentioned in other verses (Q. 2:29; 41:12).

3.2.3. *The Third Possibility*

As said before, in the third possibility, the coalescence of the sky is related to the era when the rainfall from the sky had not yet begun. And the coalescence of the earth marks the period of time before the growth of the early plants on it. From the scientific point of view, when the earth was formed, a number of different processes occurred on it. At the time, the atmosphere didn't have the same components as it currently does. Volcanic activities filled the atmosphere with a great volume of gases,

especially carbon dioxide and water vapor. Meteors and asteroids helped this process by transferring water and organic molecules to the surface of the earth. When the earth began to cool down, water vapor in the atmosphere condensed, forming the clouds and finally the first rainfall began. The first evidence for the existence of liquid water on the surface of the earth dates back 3.8 billion years ago (Makishima, 2017).

This possibility, considering the Qur'anic viewpoint, has strengths and weaknesses. The strength points are as follows:

1. Confirmation from the tradition.
2. The fact that the following phrase¹ in the verse is about the appearance of life from water, which agrees with the interpretation of the word *fatq* as “the rainfall from the sky and the growth of plants on the earth.”

But the weakness in this viewpoint is that, instead of the word *al-samā'* which has been used in the Holy Qur'an's verses in the sense of the earth's atmosphere, its plural form, *al-samāwāt*, has been used here, which includes all the skies and not solely the earth's atmosphere, so one cannot accept it with high confidence.

3.3. Discussion and Resolution of the Possibilities

In short, the second and the third possibilities have strengths and weaknesses that cannot be rejected completely nor can for sure be accurate. However, we can think of a solution to combine the existing possibilities, and to some extent, resolve the difficulties in each viewpoint:

As explained above, words making up the first phrase of the verse have been used in a way that can show the unification of the skies and the earth, as well as “the coalescence of each of them distinctly.” Therefore, this can lead one to the fact that both interpretations may be regarded by the verse and one should choose a viewpoint, which contains both coalescences at the same time.

It should be noted that the issue of polysemy and multi-layered meanings has been accepted in the verses of the Qur'an and has been known as one of the principles of the scientific interpretation of the Holy Qur'an (Mazaheri et al., 2016). Therefore, it seems correct to attribute both types of connection to the verse as well as a comprehensive possibility which includes all of the scientific possibilities of the verse if there is no opposite evidence.

1. وَ جَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ.

In addition, as mentioned before, the word *ratq* is an infinitive form which has been used by its passive participle *martūq*. According to Ibn 'Āshūr (1999, 17:40), here the use of an infinitive form in the place of an objective form is to show the exaggerate state of this adjective. In other words, the word *ratq* not only implicates the coalescence of the skies and the earth, but using it in an infinitive form shows that this coalescence has been of a very high intensity. Thus, given the exaggeration in the meaning of *ratq*, it can be said that it concedes not only one, but also numerous coalescences for the skies and the earth, that have gradually and in various stages split.

Thus, the first coalescence between the skies and the earth, according to the first probability, can be attributed to the beginning of the Big Bang, when the whole universe began to expand from one point. So, the first separation can be referred to the high-speed expansion happened afterward.

The second possibility for coalescence and separation is related to the unification of the solar system in the primary nebula, and afterward the separation of them as heavenly bodies and formation of the solar system.

The third coalescence is also related to the time that the components of the earth's atmosphere were unified and the precipitation causing this unification to cease had not yet occurred, and also the time that the earth's crust was hard and interconnected and no plant had yet split it.

As it was noted, this viewpoint can have all three viewpoints in itself. Moreover, the problem we had in the application of the word *al-samāwāt* in the second and third possibilities will be touched upon, since in this viewpoint it is not necessary to restrict the meaning of the word *al-samāwāt* to the planets within the solar system; or as in the third viewpoint, to deduce the meaning of the word *al-samāwāt* to be the meaning of *al-samā'* with no evidence or reason in order to adapt the meaning of the word *al-samāwāt* with the earth's atmosphere. Rather, we can consider the meaning of the word *al-samāwāt* to span and to include all the skies and since the *ratq* and *fatq* considered in the verse occurs in several stages and in different components of the sky, God Almighty has generally ascribed this coalescence and separation to all of the skies, so the verse can contain all the *ratqs* and *fatqs* that take place in the skies and the earth.

In other words, because the coalescence has once fell out among all the components of the skies and the earth, and once between the components of the solar system and the earth, and again separately in the earth and its atmosphere, God Almighty has used a word that indicates generality and can contain all of these skies.

However, the fact that we presented three possibilities for the coalescence and separation of the skies and the earth, doesn't mean that the *ratq* and *fatq* considered by the verse is limited to these three cases, but perhaps, many *ratqs* and *fatqs* might have taken place in the process of the creation of the skies and the earth that we are unaware of. For example, the formation of layers of the earth's atmosphere may even be considered as another coalescence and separation in the sky and the earth.

Here, we have discussed only what we have perceived based on the current human knowledge. What is remarkable is that in this verse, God Almighty precisely mentions the existing coalescence in the skies and the earth and next, the separation of them. And this is a subject that science has achieved after 14 centuries.

4. Formation of the Sky from Smoke

The verse (Q.41:11) is about the time when God intended to create or complete the heaven, while the heaven is in the form of smoke:

ثُمَّ اسْتَوَىٰ إِلَى السَّمَاءِ وَهِيَ دُخَانٌ فَقَالَ لَهَا وَلِلْأَرْضِ ائْتِيَا طَوْعًا أَوْ كَرْهًا قَالَتَا أَتَيْنَا طَائِعِينَ (فصلت/11)
Then He tended to the sky/space and it was smoke, so He said to it and to the earth: "Come voluntarily or forcefully." They said, "We came obediently."

This verse points to the time when God Almighty wills to create or complete the sky while it is in the form of smoke. The verb form *istawā ilā* has the meaning of "to attempt for" and "to will something" (al-Jawharī, 1990, 7:235; al-Zabīdī, n.d., 38:331). The word *dukhān* means the thing that rises from fire's flames (al-Rāghib, 1991, 310). Al-Muṣṭafawī (1981, 3:187) says that *dukhān* is associated with light and heat due to its relation to flame. According to these meanings, one can say:

1. What rises from the flame of fire is gaseous and opaque.
2. What rises from the flame of fire has high temperature.

Hence one can deduce that *dukhān* in this verse can be a high temperature gas. However, considering it as vapor, as some argue, has no reason or evidence in the verse or in the literature (Rezaei, 2009, 104). The second part of the verse, *so He said to it and to the earth, "Come voluntarily or forcefully.: They said, "We came obediently,"* should be interpreted in concordance with the verse *his command, when He desires a thing, is to say, "to it be, and it is"* (Q.36:82), in which the discussion is about the God Almighty's command to his creations. Among the commentators, there is no

doubt that this is not the real act of talking or commanding, but it shows the will to create and afterwards the execution of that will (Tabataba'i, 1996, 17:366). So, one can conclude that the intention from “commanding the sky and the earth to come” is a genetic process with the meaning of creation.

4.1. *The Possible Scientific Explanations of the Verse*

In order to find the purpose of smoky heaven in this verse according to modern science, there are three possibilities:

1. As mentioned before, *al-samā'* can have the scope of generality and can encompass all the skies. In this case, the first possibility is that the smoky heaven means the whole space before or in the moment of the Big Bang, and the divine command to the sky and the earth means the occurrence of the big bang and the beginning of the formation of the world. However, this possibility can also have a second form, which is that the smoky heaven means the whole space in 300 thousand years after the Big Bang, and the divine command to the sky and the earth means the beginning of the formation of the first structures.
2. It can also point to a special sky. Based on this, the word *al-samā'* can be referred to the primary nebula, of which the solar system including the sun, the earth and the other planets has been made.
3. There is another possibility for *al-samā'*, which is that it refers to the early opaque atmosphere of the earth or in the second case the mass of gas and dust that the earth has formed as a result of their collapse.

4.2. *Investigating the Strengths and Weaknesses of the Possible Explanations*

After presenting the possible scientific explanations for the phenomenon of the formation of the sky from smoke, we examine each of these possibilities and their accuracy:

4.2.1. *The First Possibility:*

There is no acceptable theory for the pre-Big Bang scenario yet. Hence, it is not possible to comment scientifically on the primary material of the universe before or in the moment of the Big Bang. Therefore, the possibility that the meaning of *al-samā'* in the verse is the primary material of the universe before or in the moment of the Big Bang, cannot be ruled out, although no evidence confirms it up to now.

If we consider the second form of this possibility, this problem will be solved and the smoky heaven can be equivalent to the whole space in 300 thousand years after the Big Bang. Before that time, space was almost homogeneous, isotropic and opaque, because due to the presence of free electrons and ions, photons could not travel long distances and were scattered in all directions. At about 300 thousand years, the temperature decreases to around 3000 Kelvin and light atoms begin to form. Therefore, it can be said that the word *dukhān* is a good equivalent for space before that time. The divine command to the heaven and the earth can also be the beginning of the formation of the first structures, which leads to the complete formation of observed structures in space, followed by the formation of the earth.

4.2.2. *The Second Possibility:*

This possibility which refers the word *al-samā'* to the primary nebula is also an acceptable probability. Since, according to the most acceptable theories, the origin of the solar system was an interstellar cloud of rotating gas and dust constituting different kinds of elements and compounds. As this nebula began to condense due to its internal gravitational force, it heated up and split to different parts each becoming a concentrated heavenly mass. Therefore, it seems that the word *dukhān* is suitable for naming this nebula.

4.2.3. *The Third Possibility:*

The sky that the verse refers to is the sky from which the earth was born and was formed by separating from it, that is, the earth's primitive materials were located in it, and then by separating these primitive materials, the earth was formed and became independent.

It is clear that the primitive atmosphere of the earth, created as a result of volcanic activities, does not correspond to this sky with the features mentioned.

However, this sky can be considered as the compact mass of gas and dust that the earth was formed due to its collapse. It seems that this possibility corresponds well to the word *dukhān*, which means a hot and opaque gas.

5. *Conclusion*

Based on the presented interpretation of the two phenomena, "coalescence and separation of the skies and the earth," and "formation of the sky from smoke," it can be concluded that in the verse (Q.21:30), God has called the stage

before the formation of the earth and the heavens the stage of the coalescence (*ratq*) and the next stage the stage of the separation (*fatq*). These two stages have been described from another perspective in the verse (Q.41:11). In this verse, God has described the stage before the formation of the earth and the heavens as a smoky sky, which is the same as the stage of the coalescence (*ratq*). In the following, he has stated the second stage, that is, the formation of the heavens and the earth by the divine command of coming the earth and the sky, which can indicate the beginning of the separate formation of the heavens and the earth that is the same as the stage of separation (*fatq*). Thus, these two verses with different expressions inform about the formation of the universe. Interestingly, considering both verses, there are three possibilities, the first related to the beginning of the formation of the universe, the second to the beginning of the formation of the solar system and the third to the beginning of the formation of the earth and the atmosphere.

Since the issue of polysemy and multi-layered meanings has been accepted in the verses of the Qur'an and has been known as one of the principles of the scientific interpretation of the Holy Qur'an, it seems that the best interpretation for the two verses is the interpretation in which all three scientific possibilities are taken into account. In other words, God Almighty, using the least words, has beautifully described the creation of the universe in a way that indicates the beginning of creation, namely the Big Bang, the formation of the solar system and the formation and evolution of the earth as well.

It is worth noting that the scientific findings on the Big Bang, the formation of the solar system and also the formation of the Earth, although supported by numerous scientific evidences, have not yet reached the stage of 100% certainty. Hence, we expressed the scientific interpretation of these two verses as possibilities so as not to attribute uncertain matters to the Holy Qur'an.

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