

## 5. Programmed Evolution and Fate of the Universe

The divine process of creation of the universe can be understood as a phenomenon of programmed evolution. The creation process did not produce the whole universe in one go but as we shall see, the universe came into existence through various stages. Allah describes Himself as the Evolver and Bestower of forms.

هُوَ اللَّهُ الْخَالِقُ الْبَارِئُ الْمُصَوِّرُ لَهُ الْأَسْمَاءُ الْحُسْنَىٰ يُسَبِّحُ لَهُ مَا فِي السَّمَاوَاتِ وَالْأَرْضِ ۗ وَهُوَ الْعَزِيزُ الْحَكِيمُ  
59:24 He is Allah, the Creator, the Evolver, the Bestower of forms (or colours). To Him belong the most beautiful names. Everything in the skies and the earth sings His praises. And He is the Mighty, the Wise.

Important hints about the process of creation of the present universe can be obtained from the Quranic verses relating to the re-creation of the universe on the Day of Judgement as it is stated that the re-creation of the universe will take place in the same way it was created for the first time (Q. 21:104, 39:67). We can use these revelations about the creation of the next universe to reconstruct the process of creation of the present universe. Although a detailed account of the process of creation of the universe is not given in the Quran, it does give certain sequences and durations relating to the creation of the universe, its organization and ultimate fate.

وَهُوَ الَّذِي خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ بِالْحَقِّ ۗ وَيَوْمَ يَقُولُ كُن فَيَكُونُ ۗ قَوْلُهُ الْحَقُّ ۗ وَلَهُ الْمُلْكُ يَوْمَ يُنْفَخُ فِي الصُّورِ ۗ عَالَمِ الْغَيْبِ وَالشَّهَادَةِ ۗ وَهُوَ الْحَكِيمُ الْخَبِيرُ  
6:73 It is He (Allah) who created the skies and the earth in truth. On the day He says “Be”, it comes into being. His Word is truth. His will be the dominion on the Day the trumpet will be blown. He is the knower of the invisible and the visible. And He is the Wise, well acquainted (with all things).

يَوْمَ نَطْوِي السَّمَاءَ كَطَيِّ السِّجْلِ لِلْكِتَابِ ۗ كَمَا بَدَأْنَا أَوَّلَ خَلْقٍ نُعِيدُهُ ۗ وَعَدَّا عَلَيْهَا ۗ إِنَّا كُنَّا فَاعِلِينَ  
21:104 The Day We roll up the sky like a scroll rolled up for books! As We originated the first creation, so shall We repeat it – a promise binding on Us. Truly shall We fulfill it.

وَمَا قَدَرُوا اللَّهَ حَقَّ قَدْرِهِ وَالْأَرْضُ جَمِيعًا قَبْضَتُهُ يَوْمَ الْقِيَامَةِ وَالسَّمَاوَاتُ مَطْوِيَّاتٌ بِيَمِينِهِ ۗ سُبْحَانَہُ وَتَعَالَىٰ عَمَّا يُشْرِكُونَ  
39:67 No just estimate have they made of Allah such as is due to Him. On the Day of Judgment the whole of the earth will be but His handful, and the skies will be rolled up in His right hand. Glory to Him! High is He above the partners they attribute to Him!

The creation process began with Allah’s command “Be” (Q. 6:73). The universe in the beginning was just ‘handful’ implying very small initial size. The first component of the universe to evolve was Earth. It took two Days to evolve.

قُلْ أُنذِرَكُمْ لَكُمْ تُكْفُرُونَ بِالَّذِي خَلَقَ الْأَرْضَ فِي يَوْمَيْنِ وَتَجْعَلُونَ لَهُ أَندَادًا ۗ ذَٰلِكَ رَبُّ الْعَالَمِينَ  
41:9 Say: Do you deny the One (Allah) who created the earth in two Days and (also) invent equals to Him? He is the Lord of the worlds.

Following the creation of Earth (human habitat), Allah created all things in it including resources required for the human robot testing programme. The creation of these things took another two Days. Thus creation of Earth as the human robot testing laboratory was complete in every respect on the fourth Day.

وَجَعَلَ فِيهَا رَوَاسِيَ مِنْ فَوْقِهَا وَبَارَكَ فِيهَا وَقَدَّرَ فِيهَا أَقْوَاتَهَا فِي أَرْبَعَةِ أَيَّامٍ سِوَاءٍ لِلسَّائِلِينَ

41:10 He set on the (earth) firm mountains high above it, and bestowed blessings on the earth, and fixed therein its nourishment in four Days in accordance with (the needs of) those who seek (sustenance).

هُوَ الَّذِي خَلَقَ لَكُمْ مَا فِي الْأَرْضِ جَمِيعًا ثُمَّ اسْتَوَىٰ إِلَى السَّمَاءِ فَسَوَّاهُنَّ سَبْعَ سَمَاوَاتٍ ۗ وَهُوَ بِكُلِّ شَيْءٍ عَلِيمٌ

2: 29 It is He who created for you all things that are on earth. Then He turned to the sky and He perfected it as seven skies. And of all things He has complete knowledge.

After the creation of Earth and its development as the laboratory for human robot testing, Allah turned to the sky. It was then ‘smoke’. He brought Earth and the smoke together and completed the creation of the whole universe. The next stage was marked by the separation of the component systems and commencement of the expansion of the universe. The expansion of the universe following separation of the components led to the organization of the universe into ‘seven skies and Earth’.

ثُمَّ اسْتَوَىٰ إِلَى السَّمَاءِ وَهِيَ دُخَانٌ فَقَالَ لَهَا وَلِلْأَرْضِ ائْتِيَا طَوْعًا أَوْ كَرْهًا قَالَتَا أَتَيْنَا طَائِعِينَ فَفَضَّاهُنَّ سَبْعَ سَمَاوَاتٍ فِي يَوْمَيْنِ وَأَوْحَىٰ فِي كُلِّ سَمَاءٍ أَمْرَهَا ۗ وَزَيَّنَّا السَّمَاءَ الدُّنْيَا بِمَصَابِيحٍ وَحِفْظًا ۗ ذَلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ

41:11-12 Then He turned to the sky and it was smoke. He said to it and to the earth: You both come together willingly or as from compulsion. They said: We do come (together) obediently (i.e., as programmed). So He completed them as seven skies in two Days and He assigned to each sky its command. And We adorned the lower sky with lamps and rendered it inviolable. Such is His decree, the Mighty, the Omniscient.

أَوَلَمْ يَرَ الَّذِينَ كَفَرُوا أَنَّ السَّمَاوَاتِ وَالْأَرْضَ كَانَتَا رَتْقًا فَفَتَقْنَاهُمَا ۖ وَجَعَلْنَا مِنَ الْمَاءِ كُلَّ شَيْءٍ حَيٍّ أَفَلَا يُؤْمِنُونَ

21:30 Do not the unbelievers see that the skies and the earth were joined together (as one unit) before We clove them asunder? We made from water every organism. Will they not believe then?

وَالسَّمَاءَ بَنَيْنَاهَا بِأَيْدٍ وَإِنَّا لَمُوسِعُونَ

51:47 We constructed the sky with hands and We do expand it.

أَلَمْ تَرَوْا كَيْفَ خَلَقَ اللَّهُ سَبْعَ سَمَاوَاتٍ طِبَاقًا وَجَعَلَ الْقَمَرَ فِيهِنَّ نُورًا وَجَعَلَ الشَّمْسُ سِرَاجًا

71:15-16 Do you not see how Allah has created seven skies one above another, and made the moon a light in their midst and made the sun a lamp?

الَّذِي خَلَقَ سَبْعَ سَمَاوَاتٍ طِبَاقًا ۗ مَا تَرَىٰ فِي خَلْقِ الرَّحْمَنِ مِن تَفَوتٍ ۗ فَارْجِعِ الْبَصَرَ هَلْ تَرَىٰ مِن فُطُورٍ

67:3 (Allah) who created the seven skies one above the other. You will not find any disproportion in the creations of (Allah) the Most Merciful. Then you look (at them). Do you see any fissure?

The statement “So He completed them as seven skies in two Days” in verses 41:11-12 must be seen as the time taken for the transformation of the smoke into the other component systems of the universe, separation of the component systems including Earth, expansion of the space and subsequent organization of the sky (i.e., the extraterrestrial cosmic space) as seven strata one above the other. Thus the adult universe is described in the Quran as ‘seven skies and Earth’ clearly emphasizing the significant role of Earth in the overall mission of God. The universe is not referred to in the Quran by a single word. In all it took six Days for the whole universe to evolve. Allah’s one Day is equal to one thousand years of man. This means that the whole process took six thousand years of human reckoning.

وَيَسْتَعْجِلُونَكَ بِالْعَذَابِ وَلَنْ يُخْلِفَ اللَّهُ وَعْدَهُ ۗ وَإِنَّ يَوْمًا عِنْدَ رَبِّكَ كَأَلْفِ سَنَةٍ مِّمَّا تَعُدُّونَ

22:47 And they ask you to hasten the Punishment! But Allah will not violate His promise. Verily a Day in the sight of your Lord is like thousand years of your reckoning.

إِنَّ رَبَّكُمْ اللَّهُ الَّذِي خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ فِي سِتَّةِ أَيَّامٍ ثُمَّ اسْتَوَىٰ عَلَى الْعَرْشِ يُغْشِي اللَّيْلَ النَّهَارَ يَطْلُبُهُ حَثِيثًا وَالشَّمْسَ وَالْقَمَرَ وَالنُّجُومَ مُسَخَّرَاتٍ بِأَمْرِهِ ۗ أَلَا لَهُ الْخَلْقُ وَالْأَمْرُ ۗ تَبَارَكَ اللَّهُ رَبُّ الْعَالَمِينَ

7:54 Your Lord is Allah who created the skies and the earth in six Days, and then was seated on the Throne (of Authority). He draws the night as veil over the day each seeking the other in rapid succession. He created the sun, the moon and the stars (all) obeying His command (i.e., programmed). Are not the creation and command His? Blessed be Allah, Lord of the worlds!

إِنَّ رَبَّكُمْ اللَّهُ الَّذِي خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ فِي سِتَّةِ أَيَّامٍ ثُمَّ اسْتَوَىٰ عَلَى الْعَرْشِ ۗ يُدَبِّرُ الْأَمْرَ ۗ لِمَا مِنْ شَفِيعٍ إِلَّا مِنْ بَعْدِ إِذْنِهِ ۗ ذَلِكُمْ اللَّهُ رَبُّكُمْ فَاعْبُدُوهُ ۗ أَفَلَا تَذَكَّرُونَ

10:3 Verily your Lord is Allah who created the skies and the earth in six days and is firmly established on the Throne (of Authority) regulating and governing all things. No intercessor (can plead with Him) without His permission. This is Allah, your Lord. Therefore you serve (worship) Him. Will you not then think over?

These verses reveal that following the creation of the universe, Allah is seated on His Throne regulating and governing all things. The Quranic revelations quoted above relating to the process of creation of the universe can be explained scientifically as execution of the divine software.

### Execution of the abioprogram

The creation process began following Allah’s command “Be” (Q. 6:73). This command is given to the intangible software of the thing to be created. Therefore the command “Be” mentioned in verse 6:73 refers to that given to the invisible software (abioprogram) of the physical universe. As a result, the abioprogram came into operation. This moment (i.e., the moment Allah ordered “Be”) may be considered as denoting the “big bang”, which marked the beginning of the evolution of physical universe. Memetically, the moment marked abiogenesis or the origin of chemical information.

The process of creation of the inanimate universe can be visualized as programmed evolution through the execution of the divine abioprogram. *The abioprogram is considered here as the driving force behind the inorganic evolution and the one which determined its course and the properties of the inanimate forms of energy.*

Following Allah’s command “Be”, the intangible (*ghayb*) software of the universe (abioprogram) began to transform itself into the *shahadat* form, which human beings can perceive (Fig. 1). It has been evolving ever since in accordance with the divine instructions carried in it. The programmed nature of evolution is very much evident from verses 41:11-12, which tell us that the system has been obeying Allah during its evolution. The term ‘obey’ means it was evolving as programmed. The programmed behaviour of the universal components is also indicated in verse 7:54.

The Quranic revelation that the universe was just ‘handful’ in the beginning may be considered to indicate the size of the first *shahadat* form. This stage is denoted in Fig.1 as the primordial abiochip (PAC) representing the first visible state prior to the evolution of Earth. Earth was the first component of the universe to evolve. This indicates that the instructions in the abioprogram executed first were those relating to the

creation of Earth. The step by step execution of the instructions relating to the creation of Earth took two thousand years to complete.

The creation of Earth was followed by the execution of the instructions for its development as the habitat and venue of human robot testing. The developmental process took two thousand years for completion. The rest of the universe was then smoke. The term ‘smoke’ used in the Quranic verses 41:11-12 can be thought of as referring to the primordial gas cloud blown out by the big bang. Scientific evidence for the initial state of the universe as gas cloud has been obtained. Therefore it can be understood that Earth evolved first from this cloud. When the evolution of Earth was completed, the rest of the universe was still in the form of gas cloud. The rest of the universe comprising galaxies, etc., evolved subsequently from this cloud. The universe so created was together in one piece. This was followed by the execution of instructions for the separation of the component systems, commencement of expansion, and organization of the sky into seven strata, in that order. The adult universe was formed thus. The entire process of creation of the adult universe through programmed evolution took six thousand years to complete after Allah gave the command “Be” to its software.

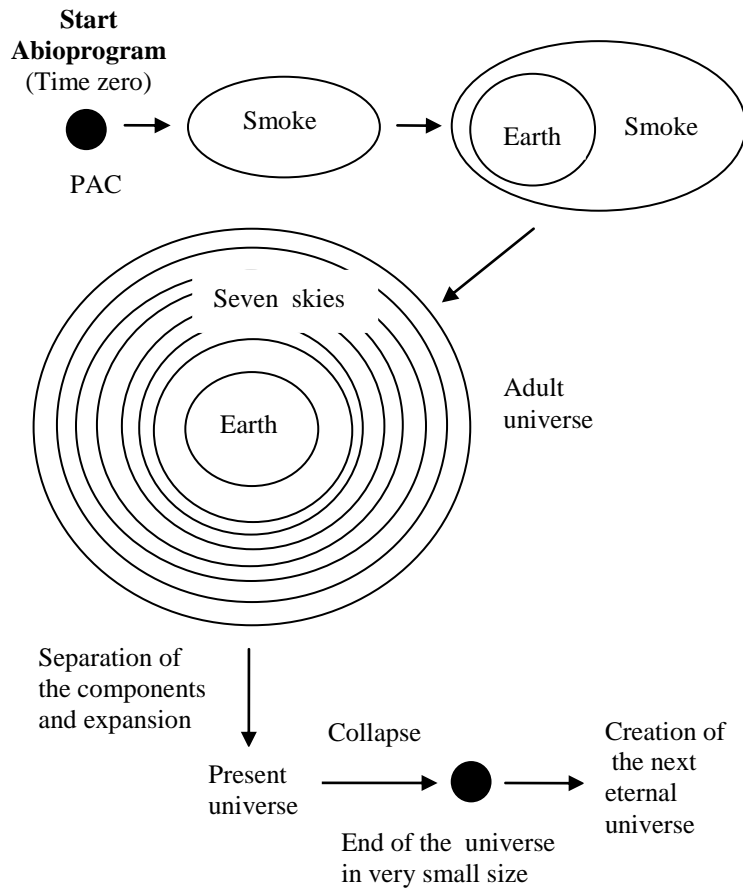


Fig. 1. Programmed evolution of the universe based on the Quran  
 Note: PAC – Primordial abiochip.

The Quranic statements like “Then He turned to the sky and it was smoke. He said to it and to the earth: You both come together willingly or as from compulsion. They said: We do come (together) obediently (i.e., as programmed). So He completed them as seven skies in two Days and He assigned to each sky its command. And We adorned the lower sky with lamps and rendered it inviolable” in verses 41:11-12 quoted above must be seen as referring to the sequential execution of Allah’s instructions contained in the abioprogram and not Allah is giving orders each time.

All the evolved components of the universe like the sun, moon and stars obey His command (Q. 7:54 quoted above) and are guided by Him (87:1-3). This implies they all have instructions immanent in their structures and hence they function as they are programmed. Allah made the moon a light in their midst and made the sun a lamp (Q. 71:16; 25:61). Allah had prescribed for the moon its mansions (i.e., orbits) (Q. 36:39). He subjected the sun and the moon to His law each running its course for a fixed term (Q. 39:5). The sun moves on for a period determined for it. That is the decree of Allah (Q. 36:38). The sun cannot reach up to the moon and the night cannot outstrip the day; each swims along (in its own) orbit (Q. 36:40). The sun and the moon follow certain rules (Q. 55:5). He ordained laws and granted guidance (Q. 87:3) implying programmed functioning of the universal components.

وَجَعَلَ الْقَمَرَ فِيهِنَّ نُورًا وَجَعَلَ الشَّمْسَ سِرَاجًا

71:16 And made the moon a light in their midst and made the sun a lamp?

سَبِّحْ اسْمَ رَبِّكَ الْأَعْلَى الَّذِي خَلَقَ فَسَوَّىٰ وَالَّذِي قَدَّرَ فَهَدَىٰ

87:1-3 Glorify the name of your Lord Most High, who created and then organized (the creations), who ordained laws and granted guidance.

تَبَارَكَ الَّذِي جَعَلَ فِي السَّمَاءِ بُرُوجًا وَجَعَلَ فِيهَا سِرَاجًا وَقَمَرًا مُنِيرًا

25:61 Blessed is He who made constellations in the skies and placed therein a lamp (i.e., the sun) and a shining moon.

وَالشَّمْسُ تَجْرِي لِمُسْتَقَرٍّ لَهَا ۚ ذَلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ وَالْقَمَرَ قَدَرْنَا مَنَازِلَ حَتَّىٰ آدَا كَالْعُرْجُونِ الْقَدِيمِ لَا الشَّمْسُ يَنْبَغِي لَهَا أَنْ تُدْرِكَ الْقَمَرَ وَلَا اللَّيْلُ سَابِقُ النَّهَارِ ۚ وَكُلٌّ فِي فَلَكٍ يَسْبَحُونَ

36:38-40 And the sun moves on for a period determined for it. That is the decree of (Allah), the Mighty, the All-Knowing. And the moon – We prescribed for it mansions (i.e., orbits to traverse) till it returns like the old (and withered) inflorescence stalk of date palm. The sun cannot reach up to the moon and the night cannot outstrip the day; each swims along (its own) orbit.

خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ بِالْحَقِّ ۚ يُكَوِّرُ اللَّيْلَ عَلَى النَّهَارِ وَيُكَوِّرُ النَّهَارَ عَلَى اللَّيْلِ ۚ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ ۚ كُلٌّ يَجْرِي لِأَجَلٍ مُّسَمًّى ۗ أَلَا هُوَ الْعَزِيزُ الْغَفَّارُ

39:5 He created the skies and the earth in truth. He covers the night over the day and He covers the day over the night. He subjected the sun and the moon (to His law) each running (its course) for a fixed term. Is He not the Mighty, the Forgiver?

الشَّمْسُ وَالْقَمَرُ بِحُسْبَانٍ

55:5 The sun and the moon follow certain rules.

Programmed evolution represents the creation process in which Allah’s instructions are executed in the prescribed sequence. At each execution step, the intangible (*ghayb*) energy that carried the instruction transformed itself into the

corresponding tangible (*shahadat*) form. This resulted in the sequential appearance of the visible components of the universe, which is referred to here as programmed evolution. This is how the universe was designed, developed and perfected as coherent system by Allah.

الَّذِي خَلَقَ سَبْعَ سَمَاوَاتٍ طِبَاقًا مَّا تَرَىٰ فِي خَلْقِ الرَّحْمَنِ مِن تَفَوتٍ فَارْجِعِ الْبَصَرَ هَلْ تَرَىٰ مِن فُطُورٍ ثُمَّ ارْجِعِ  
الْبَصَرَ كَرَّتَيْنِ يَنقَلِبْ إِلَيْكَ الْبَصَرُ خَاسِئًا وَهُوَ حَسِيرٌ

67:3-4 (It is Allah) who created the seven skies one above the other. You will not find any disproportion in the creations of (Allah) the Most Merciful. Then you look (at them). Do you see any fissure? Again turn your vision a second time. Your vision will come back to you dull and discomfited in a state worn out.

إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ وَالْفُلْكِ الَّتِي تَجْرِي فِي الْبَحْرِ بِمَا يَنْفَعُ النَّاسَ وَمَا أَنْزَلَ اللَّهُ مِنَ  
السَّمَاءِ مِن مَّاءٍ فَأَحْيَا بِهِ الْأَرْضَ بَعْدَ مَوْتِهَا وَبَثَّ فِيهَا مِن كُلِّ دَابَّةٍ وَتَصْرِيفِ الرِّيَّاحِ وَالسَّحَابِ الْمُسَخَّرِ بَيْنَ  
السَّمَاءِ وَالْأَرْضِ لآيَاتٍ لِّقَوْمٍ يَعْقِلُونَ

2:164 In the creation of the skies and the earth, the alternation of the night and the day, the ship that sails through the ocean for the benefit of the mankind, the water which Allah sends down from the sky, then He gives life with it to the earth after its death and disperses in it all kinds of organisms, the controlling of the winds, and the clouds suspended between the sky and the earth, are indeed signs for people who think.

The execution of the abioprogram still goes on and will continue so till it reaches the end instruction for the present universe. In other words, the evolution of the present universe has not stopped; it continues as per the abioprogram.

The scientific community does not recognize the divine program as the driving force behind the creation process. They also do not realize that energy is the entity that carries Allah instructions. Consequently the scientific community finds it impossible to explain how innumerable components (both material and nonmaterial) of the universe with widely varying properties evolved. In other words, it is not possible to scientifically discover the source of chemical information. All the components of the universe represent divine instructions. The Quran points to that through verses 41:11-12 (quoted above) that divine commands are immanent in the evolved components. This means that the chemical structure encodes divine instructions, which we can distinguish as ‘chemical information’. It is from this divine instructions a chemical structure (i.e., a compound or substance) derives its properties and behaviour. This will also answer the big question how a chemical structure *knows* how to react and what to produce. The information encoded by the structure is also the source of natural laws and rules. We only discover them through scientific experiments. Evolution of the universe demonstrates how from an original source of chemical information (abioprogram), material and nonmaterial components encoding Allah’s instructions were formed through transformation of intangible (*ghayb*) energy into tangible (*shahadat*) forms. Since the creation of the universe through programmed evolution (which still goes on) is a process of transformation of energy and does not involve addition or loss of energy, the original quantum of energy (carried by the divine software) will always remain unaltered or conserved. This in fact forms the basis of the first law of thermodynamics, which states that energy can be transformed from one form to another but cannot be created or destroyed.

## End of the universe

The Quran also gives information on the fate of the universe. This universe will end one day and another eternal universe will emerge in continuation of that. The present universe is a temporary system created for a term. The term refers to the period of human robot testing programme for which the universe was created to serve as infrastructure facility.

اللَّهُ الَّذِي رَفَعَ السَّمَاوَاتِ بِغَيْرِ عَمَدٍ تَرَوْنَهَا ثُمَّ اسْتَوَىٰ عَلَى الْعَرْشِ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ كُلًّا يَجْرِي لِأَجَلٍ مُّسَمًّى ۚ يُدَبِّرُ الْأَمْرَ يُفَصِّلُ الْآيَاتِ لَعَلَّكُمْ بِلِقَاءِ رَبِّكُمْ تُوقِنُونَ

13:2 It is Allah who raised the skies without any visible pillars. He then established (Himself) on the Throne. He subjected the sun and the moon (to His law), all moving for a prescribed term. He regulates all affairs. He explains the signs in detail so that you firmly believe in the meeting with your Lord.

أَوَلَمْ يَدْرُوا أَنَّ اللَّهَ الَّذِي خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ قَادِرٌ عَلَىٰ أَنْ يَخْلُقَ مِثْلَهُمْ وَجَعَلَ لَهُمْ أَجَلًا لَا رَيْبَ فِيهِ فَأَبَى الظَّالِمُونَ إِلَّا كُفُورًا

17:99 Do they not see that Allah who created the skies and the earth is able to create the likes of them (anew)? He has decreed a fixed term for them; there is no doubt in it. But the wrongdoers only preferred to reject (it).

أَوَلَمْ يَتَفَكَّرُوا فِي أَنفُسِهِمْ ۗ مَا خَلَقَ اللَّهُ السَّمَاوَاتِ وَالْأَرْضَ وَمَا بَيْنَهُمَا إِلَّا بِالْحَقِّ وَأَجَلٍ مُّسَمًّى ۗ وَإِنَّ كَثِيرًا مِّنَ النَّاسِ بِلِقَاءِ رَبِّهِمْ لَكَافِرُونَ

30:8 Do they not think themselves? Allah did not create the skies and the earth, and all in between except with truth (i.e., with purpose) for a fixed term. Yet there are many among people who deny meeting with their Lord!

أَلَمْ تَرَ أَنَّ اللَّهَ يُولِجُ اللَّيْلَ فِي النَّهَارِ وَيُولِجُ النَّهَارَ فِي اللَّيْلِ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ كُلًّا يَجْرِي إِلَىٰ أَجَلٍ مُّسَمًّى وَأَنَّ اللَّهَ بِمَا تَعْمَلُونَ خَبِيرٌ

31:29 Do you not see that Allah merges night into the day and He merges day into the night and He has subjected the sun and the moon (to his commands), each running its course for a pre-determined term, and that Allah is well-acquainted with all that you do?

وَالشَّمْسُ تَجْرِي لِمُسْتَقَرٍّ لَّهَا ۚ ذَلِكَ تَقْدِيرُ الْعَزِيزِ الْعَلِيمِ

36:38 And the sun moves on for a period determined for it. That is the decree of (Allah), the Mighty, the All-Knowing.

خَلَقَ السَّمَاوَاتِ وَالْأَرْضَ بِالْحَقِّ يَكْوَرُ اللَّيْلُ عَلَى النَّهَارِ وَيَكْوَرُ النَّهَارُ عَلَى اللَّيْلِ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ كُلًّا يَجْرِي لِأَجَلٍ مُّسَمًّى ۗ أَلَا هُوَ الْعَزِيزُ الْغَفَّارُ

39:5 He created the skies and the earth in truth. He covers the night over the day and He covers the day over the night. He subjected the sun and the moon (to His law) each running (its course) for a fixed term. Is He not the Mighty, the Forgiver?

يُولِجُ اللَّيْلَ فِي النَّهَارِ وَيُولِجُ النَّهَارَ فِي اللَّيْلِ وَسَخَّرَ الشَّمْسَ وَالْقَمَرَ كُلًّا يَجْرِي لِأَجَلٍ مُّسَمًّى ۚ ذَٰلِكُمُ اللَّهُ رَبُّكُمْ لَهُ الْمُلْكُ ۗ وَالَّذِينَ تَدْعُونَ مِن دُونِهِ مَا يَمْلِكُونَ مِن قِطْمِيرٍ

35:13 He merges night into the day and He merges day into the night. He has subjected the sun and the moon (to His Law), each running its course for a fixed term. That is Allah, your Lord. To Him belongs all dominion. And those whom you invoke besides Him have not even the control over a date-stone skin.

مَا خَلَقْنَا السَّمَاوَاتِ وَالْأَرْضَ وَمَا بَيْنَهُمَا إِلَّا بِالْحَقِّ وَأَجَلٍ مُّسَمًّى ۗ وَالَّذِينَ كَفَرُوا عَمَّا أُنذِرُوا مُعْرِضُونَ

46:3 We created the skies and the earth and all in between in truth (i.e., with purpose) and for a fixed term. But those who reject Faith turn away from what they are warned of.

The verses quoted above make it unambiguously clear that the entire universal system has a fixed term. On expiry of that term, the universe will end. We know that stars have limited supply of hydrogen for fusion reaction in their cores and therefore they have only limited life. This indicates that the stars cannot go on forever. The finite life of the stars is a clear indication of the finite life of the whole universe. Occasionally we do hear about prediction of the end of the universe by scientists. Generally such predictions put the timeline between 20 and 40 billion years from now. But the Quran says that none can get the knowledge of the final day or doomsday. That knowledge is with Allah alone.

يَسْأَلُونَكَ عَنِ السَّاعَةِ أَيَّانَ مُرْسَاهَا قُلْ إِنَّمَا عِلْمُهَا عِنْدَ رَبِّي لَا يُجَلِّبُهَا لَوْ قَتَلْتُ فِي السَّمَاوَاتِ وَالْأَرْضِ لَآتَيْتُكُمْ إِلَّا بَعْثَةً يَسْأَلُونَكَ كَأَنَّكَ حَفِيٌّ عَنْهَا قُلْ إِنَّمَا عِلْمُهَا عِنْدَ اللَّهِ وَلَكِنَّ أَكْثَرَ النَّاسِ لَا يَعْلَمُونَ

7:187 They ask you (Prophet Muhammad) about the (Final) Hour - when will it happen? Say: “Verily, its knowledge is with my Lord (alone). None but He can reveal its time. It will be hard for the skies and the earth. It will come to you all of a sudden.” They ask you as if you are well informed about it. Say: “Certainly, its knowledge is with Allah (alone); but most people do not know.”

The fate of the universe has been the topic of serious discussion following the failure of the steady state theory (which described the universe as a static system without beginning and end) and the successful demonstration of the predictions of the big bang model. Theoretical explorations to find answers to this issue are possible with the big bang model which portrays an expanding universe. Consistent with the observations of several supernovae (a supernova is a stellar explosion producing an extremely luminous object made of plasma – ionized state of matter) in other galaxies, the rate of expansion of the universe has been found to be accelerating. The concepts of dark energy and dark matter, which act against gravitational attraction, have been introduced to allow for the acceleration. The ultimate fate of the universe is supposed to depend on how much dark energy it contains and the value of the density parameter, omega ( $\Omega$ ). Density parameter ( $\Omega$ ) is defined as the average matter density of the universe divided by a critical value of that density. Based on these conditions, three scenarios have been suggested as the probable ultimate fate of the universe [1]. An  $\Omega$  greater than 1 represents a “closed universe”. In a closed universe gravity eventually brings the expansion of the universe to a stop, after which it starts contracting until all matter in the universe collapses to a point, a final singularity called “the big crunch”. A universe is called “open” if its  $\Omega$  is less than 1. The open universe expands forever. Matter will spread thinner and thinner. Galaxies will exhaust their gas supply for forming new stars. The old stars will eventually burn out, leaving only dust and dead stars. The universe will become quite dark and the temperature of the universe will approach absolute zero. The universe will peter out in a “big chill”. An  $\Omega$  equal to 1 describes a “flat universe”. A flat universe expands forever but at a decelerating rate asymptotically approaching zero. The universe will not end in a big crunch nor expand into an infinite big chill, but will remain at equilibrium [2]. Besides these, the possibility of “multiverse” (parallel universes) is also indicated. It is assumed that our universe may be one among many universes with even different physical laws. There is also the cyclic cosmological model that suggests the universe will exist forever through cyclic repetition of big bang and big crunch.



The Quran repeatedly draws our attention to the end of the universe reminding us of that impending event. The verses 21:104 and 39:67 provide certain hints about the end process namely, the skies will be rolled up like a scroll and the size of the universe will be reduced to a handful. These statements relating to the end of the universe are fully consistent with the theoretical expectations of the big crunch hypothesis which predicts that the universe will eventually stop expanding and start collapsing. The collapse thus leads to the end of the universe. “The rolling up of the sky like a scroll rolled up for books” (Q. 21:104) may be considered as metaphorical description of collapse of the universe while the reference to the size of the earth as “handful” is the small size of the universe following the collapse (Fig. 1). The big crunch theory is thus acceptable for explaining the end of the universe as it agrees with the Quranic description in a broad theoretical sense. This also means that the present universe is a closed universe (Fig. 2). It may be reminded here that this is a case of application of the Quran to science to arrive at the correct theory from among the many theories proposed to explain a given phenomenon. That way science can be purified by picking out the right one and rejecting the others. Thus the Quran guides science to the truth on the question of the fate of the universe. Since the universe has been designed and programmed to suit the divine mission of human robot testing, the end of the universe will mark the completion of the human robot testing programme.

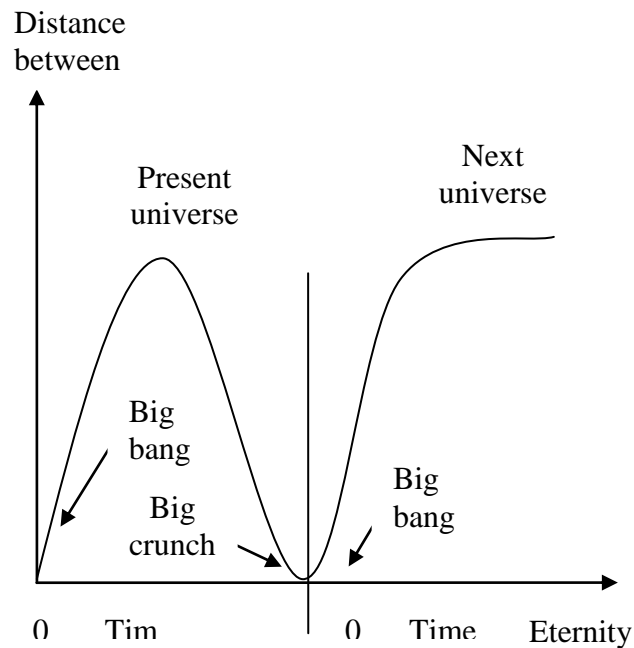


Fig. 2. Diagrammatic representation of the next eternal universe following the end of the present universe

As with the end of the universe, the creation of the next universe is also a certainty. The Quranic verse 21:104 quoted above also gives certain hints about the mode of creation of the next universe. Allah tells us that the mode of creation of the next universe will be similar to the one adopted by Him in its first creation. Going by the big bang model to describe the cosmogony (the genesis of the universe), it will be by the same process that God will create the next universe on the Day of Judgement. The end

(big crunch) of the present universe being a cosmic singularity, it may serve as the big bang of the next universe. According to Khoury *et al.*, the universe can undergo a transition from big crunch to a big bang through a string theoretic regime which connects the two phases [3]. This scenario offers a continuum between the present and the next universe and corroborates the Quranic disclosure of creation of a new universe following the end of the present universe. The big crunch of this universe serves as the big bang of the next universe.

The most glaring feature of the next universe that distinguishes it from the present universe is its eternal nature mentioned at several places in conjunction with the description of Heaven (Q. 57:12) and Hell (Q. 43:74).

يَوْمَ تَرَى الْمُؤْمِنِينَ وَالْمُؤْمِنَاتِ يَسْعَى نُورُهُمْ بَيْنَ أَيْدِيهِمْ وَبِأَيْمَانِهِمْ بُشْرَاكُمُ الْيَوْمَ جَنَّاتٌ تَجْرِي مِنْ تَحْتِهَا الْأَنْهَارُ خَالِدِينَ فِيهَا ذَلِكَ هُوَ الْفَوْزُ الْعَظِيمُ

57:12 The Day you will see the believing men and the believing women (with) their glow spreading to their front and their right. (They will be told): Today's good news for you is Gardens with rivers flowing beneath. (You will) dwell therein forever! That is indeed the great success!

إِنَّ الْمُجْرِمِينَ فِي عَذَابٍ جَهَنَّمَ خَالِدُونَ

43:74 The sinners will be in the punishment of Hell forever.

The eternal nature is theoretically a characteristic of “flat universe” with  $\Omega$  equal to 1. A flat universe will expand at a rate that is just enough to avoid re-collapse (Fig. 2). It also implies that the abioprogram of the next universe will satisfy the eternal nature as well as its other special characteristics. This proposition of the re-creation of the universe is comparable with the theoretical model of cyclic universe with the difference that the big crunch occurs only once and the next universe will not meet with the same fate (big crunch) as its predecessor. In other words with the creation of the next universe, the cycle completes. Therefore, the abioprogram of the universe may be thought of as an integrated software for the present universe and the next universe together.

## References

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