# Mechanism of the doomsday the ultimate fate of the universe

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# MECHANISM OF DOOMSDAY - ULTIMATE FATE OF THE UNIVERSE: Part-1

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"And Unto Allah belongs. The Unseen of the heavens and the earth, And the matter of the Hour (of Doom) id, But as the twinkling of the eye, Or it is nearer still. Lo, Allah is able to do all things".... 16 (77).

#### INTRODUCTION.

All the religions of the world and also the modern science, believe that world is going to end but How? This is a question about which very little is known and is the subject of this paper. Curiosity to know about the ultimate fate of universe seems to be inborn in mankind. When we look around the vast skies decorated with stars, we do ask, what will happen to all this? Inside, we are in fact, concerned about our own existence. Will this beautiful world of ours, also perish? Is it for ever?

In the olden times Greeks had put up the hypothesis of eternity of universe, that it has been always there. This notion has existed to this date and a number of leading astronomers still believe in the continuity of the universe. In this process, they think that matter creates more matter and so it goes on.

However, this idea is unacceptable to a great majority of the scientists. Based upon the observations of formation of galaxies, expansion of universe, decay of matter and study of the behaviour of the elementary particles, they believe in a finite universe. In this regard the latest views were summed up in Geneva, in the conference of cosmologists and particle physicists held in November 1983, by the famour physicist Stephen Hawking of Cambridge. He said, "What we look back on as the big bang, was a time of very high but not infinite density, a state to which universe will precisely return through collapse after its present expansion phase is over. Out of the high density phase, it will be born again (with an exponential inflation phase), to repeat the cycle and infinitum".

This in fact follows the general principle of finiteness, given in the Holy Quran, fourteen hundreds years ago, which says: كُلُّ مِنْ عَلَيْهَا فَان كُلُّ

"All that is there (in the universe) will perish".... 55(26).

This is that nothing can be everlasting. Everything must have a beginning and its end. Not even neutrons or protons can be of infinite life. They must decay. Ultimately whole of the universe will be annihilated.

On this, the Holy Quran lays down the fundamental law of pre-set life periods of thing; which means that events happen according to a predetermined scheme of nature. This is:

"Every order (event) has an appointed time, And ye will come to know".... 6(67)

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This dictates that process of creation, decay and annihilation must follow pre-set rules and are therefore, predicatable, if we can understand and analyse the effects of all the variables involved therein. However, since our reach into time and space is limited and universe is too vast and complex, mankind may never know with certainity of their own fate.

In this regard, guidance from Holy Quran is quite comprehensive and meaningful. In its various revelations, it has described the events concerning the final annihilation of the present order of universe in precise but simple to understand manner.

It indicates that event of Final Annihilation of universe or Doomsday is actually the culmination of various minor events going on always in the cosmos. Accordingly, even at this very moment, somewhere in space, there is some star or planet which is there new, but would not be there in the moments to follow. The day is not too far, when our earth and solar system will also suffer its fate; and no one may even notice it in the universe.

#### DIVINE PURPOSE OF DOOMSDAY

Doomsday does not mean the "End", in the Holy Quran, but signifies events made to change one state of existence to another. The whole process follows according to a calculated scheme of the Divine Will and is not just an accident of nature. It is a revolution in the evolution. Following revelations highlight the moral side of this story in the universe:

"Verily the Hour (of the Doom) is to come, My design is to keep it hidden, For every soul to receive its reward, By the measure of its endeavour"... 20(15) اِنَّ السَّاعَةُ الْبِيَةُ أَكِادُ اُخْفِيْهَالِتُجْزُعِ كُلُّ نَفْسٍ بِمَا تَشْعَىٰ O

This signifies that knowledge of that fateful event is with God only. Mankind will never know of its exact occurrence. However it is not the end but a continuation of the present order of existence, where the old memories would survive. It will be a world as a consequence of the present world; a place of reward and punishment for the deeds performed in the present order of existence. It also means that "Existence" continues for ever, but its shape and style do change. The argument can be stretched to the fact that pre-universe was also not the "Nothingness". And even if we call it Nothingness, it was not devoid of existence. Similarly, existence will continue in the "After Universe" also.

Certainity of occurrence of this grand event is assured in the Holy Quran at a number of places. In fact, this is the pinnacle of the religion of Islam, and is the place for the accountability of leeds of man performed in the present order of existence. Following are some of the revelations which speak of this event:—

"Warn them (O, Prophet of God),
Of the Day of approaching (Doom)". . . 40(18)

وَٱنْذِرْهُ مُ يَوْمُ الْدُرِفَةِ

"It is but one shout, And behold, All of them will be brough before Us" . . . 36(53)

"Do they not think, That they will be called to account. On a very big Day". . 83(4,5) ٱلدَيْظُنُّ اللَّهُ وُمَّنِعُوْثُونَ فَ يَيْوِمٍ عَظِيْمِ فُ

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Divine use of the term "Very Big day" ( Diviously means that period of the changeover of the present order into the new order is indeed of cosmological duration. It may last for millions of our years, may even be longer than the total existence of the present order of the universe.

The concept of "Accountability and Doomsday" is further highlighted in the following verses:-

"Then there comes, The great overwhelming Event, The Day when Mankind, Shall remember, what they strive for?....79(34-35)

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"No soul will have power,
On any other soul on that Day,
The absolute command is of Allah's only".....82(19).

فَإِذَا جَاءَتِ الطَّامَّةُ الْكُبُرَى 6 كُوْمَ يَتَذَكَّرُ الْوِنْسَانُ مَا سَعَىٰ 6 يَوْمَ لَا تَمْدِكُ نَفْسُ لِنَفْسُ شَيْئًا \* وَالْوَمُرُ يَوْمَ مَرْكِ فَمْسُ نِهِ يَنْهُ وَقَ

Thus Doomsday is the Day of Justice for all mankind, of all the worlds, of all the times. Earth is just one of those multitudes of worlds. How shall it happen, is a Divine secret, of which our knowledge is extremely limited. However, following verses suggest that even that will happen according to some Divine measurement:

"He takes an account of them (all)
And has numbered them exactly,
And every one of them,
will come to Him singly,
On the Day of Judgement"...19(94-95)

إِنْ كُلُّ مَنْ فِي السَّهٰ وَ وَالْوَرْضِ إِلَّا آبِ الرَّحُهٰ إِ عَبْدًا ۞ لَقَدُ اَحْصِلُهُ عَى عَدَّهُ هُدَعَدًّا ۞ وَكُلُّهُ خُوارِثِيْ لِي كُومَ الْقِيلِمَةِ فَرُدًّا ۞

#### NATURE OF THE DOOMSDAY

As discussed above, the Doomsday is actually an event in the continuous process of creation and recreation of God. The Quran throws light on two type of such events;

- 1. Major Event, which will annihilate the entire universe.
- 2. Smaller events of common occurrence, which destory the individual solar systems.

This we can see from the verses 36(48-54) of the Divine Revelation, which describe these two phases of Doomsday in the following manner:—

"Further, they ask, when will this promise (Come to pass), If what ye say (about the Doomsday) is true? 36(48) (Say when it comes)

They will not want for aught, But a single Blast, وَيَقُولُوْنَ مَتَىٰ هٰذَ االْوَعْدُ إِنْ كُنْتُمُ صِلْدِتِيْنَ O مَا يَنْظُرُوْنَ اِلدَّصَيْحَةٌ قَاحِدَةً تَاخُذُ هُمُ هُ وَهُمُ يَخِصِّمُوْنَ O تَاخُذُ هُمُ هُ وَهُمُ يَخِصِّمُوْنَ O

It will seize them while, They are disputing among themselves" 36(49) وَهُ مُ يَخْضِمُونَ ٥

"Then, No chance will they have, by will, To dispose (of their affairs), nor, To return to their own people". . . 36(50)

فَكَدَيَسُتَطعو نَ تَوْصِيَةً وَّلَاَ إِلَى اَهْلِهِهُ يَرْجِعُونَ ۞

This part of the revelation is about the doomsday of our earth. Next is described the Resurrection, after the universal Doomsday when entire mankind of everywhere in the cosmos will be brought before the Lord.

"The Soor shall be sounded, when behold! From the sepulchres (mankind) Will rush forth to their Lord"...36(51) وَلُفِخَ فِي الصَّوْرِ فَإِذَا هُـُهُ مِّنَ الْاَجُدَاثِ إلى رَبِّهِـِهُ يَشُولُونَ ۞

"They will say, Ah' Wee unto us!
Who has raised us up from our beds of repose?
(A voice will say), This is what (Allah) Most Gracious had promised

And true was the word of the apostles! . . 36 (52)

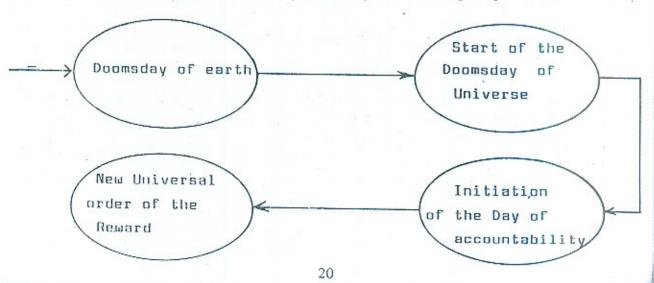
هٰذَامَا وَعَدَ الرَّحْمَٰنُ وَصَدَقَ الْمُرْسَلُونَ فَ

"It will be no more than single Blast, When Lo! they will all be brought up before us! 36(53)

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"Then on that Day, Not a single soul will be wronged, in the least, But repaid the meeds of your past deeds"...36(54) كَالْيُوْمَ لَانُّنْظُلَمُ لِكَشْنُ شَيْئًا وَكَا كَجُزُوْنَ إِلَّامَا كُمُثُنَّتُ مُ تَحْمَلُوُنَ ۞

Above revelations has described the series of the landmark events, starting from the earthly doomsday in the verse 36(49), which, a sudden event will take people by surprise. In this process earth will be annihilated and population on earth will die. Long after that, there will occur the universal Doomsday, which will again be a sudden event, and so powerful that it will be heard by both the dead and alive everywhere in the universe. In this process entire universe will parish. Finally the day of Resurrection will come. It will also be initiated suddenly and in the process of this event, all people of all thetimes will be broughter back to life and presented before the Lord of the universe for their accountability. This will be associated with the period of the payment of the deeds. In that order, will be the Jannat, the abode of the righteous and the Jahannam, the abode of the wicked. Various phases of these events are represented by the arrow diagram given below.



In the following now we shall analyse their mechanism in greater detail:-

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This is when the present order of existence will be changed into an entirely new order of existence. This is a subject much debated these days. Most Cosmologists favour the idea that universe is not for even; once it had a beginning and some day it will have its end. Thereafter, a new beginning will take place. In this regard, scientific evidence proves that currently universe is expanding at a very rapid rate. At its outer peripheries, its speed of expansion is as much as the speed of light. However, this expansion may not be for ever. Sometime, universe will start contracting. As this happens, universe will rapidly collapse back into a fire ball comprising extremely high density mattes. On this occasion, it will explode like a bomb and thus set the next stage for the new universe.

This scenario is supported from the Holy Quran 3, which guides us that this invisible matter.

Holy Quran also speaks of the revolving heavens <sup>4</sup> and highlights that it is actually the natural consequence of its expansion. Presently, universe is expanding and revolving like the opening of a dise spiral. When it has fully opened, it would coil back on itself due to its own residual momentum. Fig.2 shows a pictorial representation of this phenomenon.

Experimentally, the process may be demonstrated by nailing one end of a spring rope to a spiral dise and coiling rest of the length on it. Then give it a very strong twist to open the rope. It would be seen that rope begins to open up around the centre of the pivot. Finally after whole of it opens up, under its own momentum, it would begin to coil back around its pivotal point.

Examples of spiral expansion have been observed in the construction of several galaxies of the heavens. <sup>5</sup> These are of two types, normal and barrel spiral. Normal spirals have lense — shaped central regions, from opposite side of which the two arms emerge and coil around the centre in the same sense and the same plane. A barrel spiral galaxy is in the shape of two coils starting abruptly from the ends of bright bar, which projects from the opposite sides of the central region. To illustrate this phenomenon, Fig. 3 shows the structure of some typical galaxies. The same is generalized on the cosmic scale.

From the Quranic verse 21(104) it can also be assumed that universe as a whole is also of the spiral shape which, after having opened up to its maximum limits, would coil back on itself. Since pulling force of gravity is inversly proportional to the square of the distance between the bodies, therefore rate of contraction of universe would be much greater than its expansion. Ultimately, all the matter in the universe, rushing in at tremendous velocities from all around, will crash together and finally be annihilated in a fire ball of Energy, as it was in the beginning of the first order of existence. The only Reality then would remain of God only. The Quran depicts these two states of existence in its following verse:

"He is the First and He is the last"... 57(3) وَهُوَ بِكِلِّ شَنَى ءٍ عَلِيمٌ " وَهُوَ بِكِلِّ شَنَى ءٍ عَلِيمٌ اللهِ وَ النَّا هِنُ وَ الْبَاطِنُ ۗ وَهُوَ بِكِلِّ شَنَى ءٍ عَلِيمٌ اللهِ عَلَى اللهُ اللهِ عَلَى اللهُ اللهِ عَلَى اللهُ اللهِ عَلَى اللهُ اللهُ اللهُ عَلَى اللهُ اللهُ اللهُ اللهُ عَلَى اللهُ الله

Beginning and the End are thus two states of existence when all the secondary existences are terminated into the primary Existence of the One and the only One God, besides whom there is no other God. He will then set the stage for a new beginning, for a new universe which according to the Holy Quran, will be unimaginably bigger than the present order of universe. This is the promise of God, made in the verse 21(104), who will repeat the creation of the world again. However, as

indicated by the verse 14(48), 3(133), g i v e n ultimately whole of the present order of universe will be folded back. Expansion will chage into contraction. Then it will implode back to its original point of creation, from where it will be recreated once again. The following revelation is a pictorial representation of this account:

"There would be a Day,
When We shall roll up the heavens,
Like a recorder rolls up a written scroll,
As We began the first creation,
We shall repeat it,
It is a promise upon us,
Lo! We are to perform it". . 21(104)

يُوْمَ لَطُوى السَّمَآءَ كَطَيِّ السِّحِلِّ لُلِكُتُبِ \* كَمَا بَدَأُنَا ٓ اَوَّلَ خَلْقٍ تَعِٰسِنُدُهُ \* وَعُدًّا عَكَيْناً \* إِنَّا كُنَّا فَعِلِيْنَ ۞

As for the current expansion of the universe, following revelation provides a clear indication of that:

"We created it with the Twist of the (Divine) Hand, And Surely We are expanding it". . 51(47) وَالسَّمَّاءُ بَنَيْنُهَا بِٱيسْدٍ وَّ إِنَّالَمُوْسِعُوْنَ ۞

Expansion phase of the universe is associated with the creation of heavenly bodies. This is synonymous with a scriber who writes on a scroll and goes on unfolding its pages, putting new ideas everywhere. Likewise, God has been unfolding the universe, adding on it, new creations all the time, giving it more and more grandeur as the Quran says:

"Everyday, is a day of New splendour, For (your Lord)". 55(29) يَسْئَلُهُ مَنُ فِي السَّلَوْتِ وَالْاَرْضِ الْكَارُضِ الْكَارُضِ السَّلَوْتِ وَالْاَرْضِ الْكَارُضِ الْكَارُضِ الْكَارُضِ الْكَارُضِ الْكَارُضِ الْكَارُضِ الْكَارُضِ الْكَارُضِ الْكَارُضِ اللَّهُ اللَّ

In contrast to it, the contraction phase of the universe will be associated with the folding of the task already done; a gradual process of decommissioning of the heavenly bodies.

The folding process of universe can be imagined to occur in may ways. Currently, popular scientific hypothesis is that there exists a large amount of unseen hidden matter in space. Since the force of gravity always tries to pull things inward, a stage may come when the gravitational pull of the invisible matter exceeds the expanding forces and thus change the expansion into contraction. Neutrinos, which are extremely small particles of matter, having mass less than electrons are thought to be the principal component of below new universe would be very much different from the present one;

On that Day,
When the earth will be
changed into another earth;
And the heavens,
(they will be changed also)". 14(48)

"And vie one with another, for forgiveness from your Lord, And for a paradise (Jannat), which is as wide as, يَوْمَ تُبَدَّ لُ الْاَرْضُ غُيْرَ الْدَرْضِ وَالسَّلْوٰتُ و بَرَزُوْ الِلْهِ الْوَاحِدِ الْقَهَّادِ ۞

> وَسَادِعُوَّا إِلَى مَغُفِّرَةٍ مِّنُ رَّتِبِكُهُ وَجَنَّةٍ عَرْضُهَا السَّلُوتُ

All the heavens and earth. It is prepared for those who ward off evil". . 8(133)

# MECHANISM OF THE BEGINNING OF THE UNIVERSAL DOOMSDAY

It appears from the Holy Quran that the beginning of universal doomsday is marked by the transient of the change-over from expansion into contraction phase and is of tremendous significance for whole of the cosmos. This transient is termed as SOOR( ) in the Holy Ouran. It will be felt everywhere, spreading a wave of terror throughout the universe. Following verses point out this awful reality:

"And (remind them of) the day; When the Soor will be blown, And all who are in the heavens and the earth, will stare in terror, Save him whom Allah wills, 

Soor(معول) will sound the start up of the Doomsday. It will be a tremendous event, shaking everyone in the universe. Therafter things will be changing suddently from bad to worse. The Ouran points out that contracting phase of the universe is the phase of chaos and turbulance. Control will be let loose, stars will burst, planets will be crashing into one another. In this state, cosmos will be filled with a smoky stuff. Following verses illustrate the state of turmoil of that Day:

"It is a heavy Day, 

"And the heaven will be spilt asunder, And on that day it will be frail, flumsy" .... 69(16)

"A day, when the heaven, with the clouds. will be rent asunder" .....25(25)

"Watch for the Day, When the heaven will bring forth. A kind of smoke, Plainly visible, Enveloping the people, It will be painfully grievous" ....44(10-11)

On the basis of current scientific thought, one may say that such conditions could be a result of the bursting of stars. On a smaller scale, this scene has been observed in the phenomena of Novae and Supernovae which violently release gaseous matter and energy and fill the surrounding space..

Besides the smoke, there will be an overall disorder in the universe. To a man on earth, heavens will appear trembling, vibrating and shaky. Following verses offer a comprehensive description of that awful state of affairs:

"On that Day, Heavens Will heave, with awful heavings".....52(9)

And the mountains; They will fly hither and thither"....52(10). يَوْمَ تَـصُوْرُ السَّمَّاءُ مَوْرًا كُلُ وَ تَسُوُ الْحِمَالُ سِوَّا مُ

The advent of the universal Doomsday is thus associated with an overall break of order in the universe. Flying of mountains signifies the state of planets crashing with each other, throwing chunks of matter, roving disorderly in space.

The following verses seem to refer to the abnormal outbursts in the form of novae and supernovae when Stars will fall off their stable positions, crash into each other and so loose their energy producing reactions causing gradual darkness allaround.

(Watch for the Day,)
When the Sun is folded up,
When the stars fall,
Loosing their light: 81(11)

إِذَ الشَّمْسُ كُورَتُ ٥ُ اللَّهُ مُنْ وَكُورَتُ ٥ُ اللَّهُ مُنْ وَكُورَتُ ٥ُ اللَّهُ مُنْ اللَّهُ اللَّهُ مُنْ اللِّنْ اللَّهُ مُنْ اللْمُنْ اللِيلُولُ مُنْ اللِيلُولُ مُنْ اللَّهُ مُنْ اللِهُ مُنْ اللَّهُ مُنْ اللَّهُ مُنْ اللْمُنْ اللِيلُولُ مُنْ اللْمُنْ مُنْ اللْمُنْ لِلْمُنْ اللْمُنْ اللْمُنْ مُنِنْ اللْمُنْ اللْمُنْ مُنْ اللَّهُ

This represents a condition of complete chaos and disorder. Stars can loose their light, first, for the observer, that skies are overcast with celestial dust; and second; that in the contraction process, as the heavenly bodies come closer, the outside gravitational forces far exceed the inward forces holding the plasma of stars, thus reducing the inside pressure low enough to stop the energy-generating nuclear fusion reactions.

The general situation of chaos, prevailing during the Doomsday of the Universe is highlighted in the verses 79(1-6) also. Here the stress is on too much activity of meteors, disorderly floating of stars in space an extreme degree of commotion in the universe.

"By those who drag with destruction,
By (the meteors) rushing apart,
By the (lone stars) floating,
By the (angels) hastening,
And those who govern the events"
On that day,
Everthing that can be in commotion,
will be in violent commotion,
Commotion after commotion"..79(1-7)

وَالنَّزِعَتِ عَرُقًا فَ وَالنَّشِطَةِ نَشُطًا فَ وَالنَّشِطةِ نَشُطًا فَ وَالنَّشِطةِ نَشُطًا فَ وَالنَّشِطةِ فَالسَّبِعُةِ مَسِمَا فَ السَّيْفَةِ مِسْتَقًا فَ فَالسَّيْفَةِ مِسْتَقًا فَ فَالْمُدُ يِّرِاتِ امْرًا أَ وَالنَّادِ وَفَةً فَ فَ وَالنَّادَةُ وَالنَّادَةُ وَقَالًا الرَّادِ وَفَقًا فَي اللَّهُ المُؤَادَ وَقَالًا الرَّادِ وَفَقًا فَي اللَّهُ المُؤَادَ وَقَالًا الرَّادِ وَفَقًا فَي اللَّهُ المُؤَادَ وَقَالَ المُؤَادِ وَقَالًا المُؤَادِ وَقَالَ المُؤَادِ وَقَالَ المُؤَادِ وَقَالَ المُؤَادِقَةُ فَي اللَّهُ المُؤَادِقَةُ فَي المُؤَادِقَ المُؤَادِقَةُ فَي النَّالِيَّ المُؤَادِقَةُ فَي النَّالِيَّ المُؤَادِقَةُ فَي السَّلِيَةُ المُؤَادِقَةُ فَي النَّالِيَّ المُؤَادِقَةُ فَي النِّرِيقِ المُؤَادِقَةُ فَي النَّالِيَّ المُؤَادِقَةُ فَي النَّالِيَّ المُؤَادِقِيقِيقِيقِ المُؤَادِقِيقِيقِيقِ المُؤَادِقِيقِ المُؤَادِقِيقِيقِ المُؤَادِقِيقِيقِ المُؤَادِقِيقِ المُؤَادِقِ المُؤَادِقِ المُؤَادِقِ المُؤَادِقِ المُؤَادِقِ المُؤَادِقِ المُؤَادِقِ المُؤَادِقُودِ المُؤَادِقُ المُؤَادِقُودِ المُؤَادِقُودِ السَّلِيقِ المُؤَادِقُودِ المُؤَادِقُودِ المُؤَادِقُودِ المُؤَادِقُودِ المُؤْدِقِ المُؤَادِقُودِ المُؤَادِقُودِ المُؤَادِقُودُ المُؤَادِقُودِ المُؤَادِقُودِ المُؤَادِقُودُ اللَّذِي المُؤْدِقِ المُؤْدِقِقِ المُؤْدِقِ الْمُؤْدِقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِيقِ المُؤْدِقِ المُؤْدِقِيقِ المُؤْدِقِ المُؤْدِقِيقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِيقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِيقِ المُؤْدِقِيقِ المُؤْدِقِقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِ الْمُؤْدُوقِ الْمُؤْدِقِيقِ المُؤْدِقِقِيقِ المُؤْدِقِ المُودِقِقِيقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِقِقِ المُؤْدِقِقِ المُؤْدِقِ المُؤْدِقِ المُؤْدِقِيقِ المُؤْدِقِ المُؤْدِقِيقِ المُؤْدِقِ المُؤْدِقِيقِ المُؤْدِقِ المُؤْدِقِقِ المُؤْدِقِق

In that state, heavens will appear as a pot of molten copper sizzling, on the furnace;

"The sky will look as the Molten copper"..70(8)

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This analogy signifies the high-temperature plasma filling the skies in those dreadful events of bursting of stars during the last phases of universe. Fig-4 shows a representation of such events with the example of the TrifidNebula (M.20,NGC 6514).

#### SUMMARY

In the above discussion we have studied the scenorio of the total end of the universe as seen through the light of the Holy Quran. In general it is the scene of contracting universe, in which everything is rushing towards its orgin at tremendous speeds. Cosmos is full of turbulance, heavenly bodies crashing into each, stars spewing out hot plasma, space filled with smoke, skies littered with debris of heavenly bodies, a state of dreadful commotion al-around. And mankind anywhere and every where, in panic, helplessly seeing their fast approaching End. However this will be only for a New Beginning, for the birth of a new order of existence, much more grandeor than the present one. This is the scene of the end of the universe depicted by the modern scientific research also. We see that over centuries science has gradually moved to the position pointed out in the Holy Quran fourteen hundreds years ago. However, scientific stand about the doomsday of our own solar system is still far removed from the revealed guidance of the Holy Quran. This subject will be taken up in the part-II of this article, where we shall study the mechanism of the doomsday of our own world, an event which can happen any time, but definitely much earlier than the universal Doomsdays discussed above.

# MECHANISM OF DOOMSDAY-ULTIMATE FATE OF THE UNIVERSE: Part-II

"Closer and closer to mankind Comes their reckoning. Yet they head not, And they turn away",,,21(1) إِثْ تَرَبَ لِنَّاسِ حِسَا بَهُ وَهُ وَهُ مُ

#### DOOMSDAY ON EARTH

The discussion so far has concentrated on the "Universal Doomsday" However we have already said that on smaller scale, doomsdays are a routine phenomena in the universe. All the worlds have their life periods and when their time comes, no one can avert the catastrophe. The rule is;

"Every event has its appointed time", .54(3)



According to this rule Doomsday of the earth is also a reality, which will happen before the universal Doomsday as part of the "continuous" Divine activity of creation and recreation. There have been worlds like us which have met this fate earlier; there are going to have it in future.

Thus Day of Doom is a continuous reality of nature, when it falls on our earth it will not be at all a unique happening in the universe. Holy Quran reveals 6 that life is a widely spread phenomenon in the cosmos and there are so many earth-like bodies populated by human beings like us. In line with the general principle of accountability, each one of them has to have its Doomsday at its turn. This is apparent from the Quranic verses 55(26-45) which describe the order of various events leading to the ultimate Doomsday, and highlight that doomsdays of individual worlds are actually part of the Divine scheme of accountability.

In this schedule, verse 55(31) points out the pre-occupation of God in the Doomsday of some other earth at this time. Our turn is-foretold to be coming very soon;

"Soon shall we be free, For you, O'you twain burden (of earth). . .55(31) سَنَفْرُغُ لَكُمْ الثُّهُ الثُّقَالِ عَ

The argument that doomsday of our earth is a separate event, other than the ulitmate doomsday of the universe is also supported by the fact that revelations describing this event always use the word heaven in singular form, whereas the Quranic universe actually consists of seven heavens. This means that End of earth is a localized affairs of our part of the world only. However, as Newton said: we cannot move a finger without disturbing all the stars, earths doomsday would also have some universal repurcussions.

#### APPROACH OF THE EARTH'S DOOMSDAY

It appears from the Holy Quran that coming of the earthly doomsday cannot be predicted by the normal scientific laws. Its knowledge is said to be with God only 7(187); which means that it is not a simple thing which may be exactly calculated and analysed. Therefore, it cannot be related to the life of the sun also, because from its rate of production of energy, and from the knowledge of hydrogen in it, which is its fuel, it is scientifically a predictable phenomenon.

According to this, sun may continue to live like this for another six billion years. Life on earth should go on reasonably well till that time. Thereafter, the sun will repaidly consume its remaining hydrogen fuel and in the next 500 million years, it will swell in volume so much so that temperature on earth will rise to as high as 500°C. Then, oceans will boil a way, living beings will be roasted, leaving no sign of life on earth. However as said already, Holy Quran does not seem to agree with the doomsday based upon the linear-destruction of the solar system. It says:

"None in the heavens and in the earth,
Except Allah,
Knows what's hidden,
Nor they can perceive when they
shall be raised up,
Still less, they can comprehend,

"They ask thee of the Hour (of the Doom),
When shall it come to pass?
Say, knowledge, thereof is with my Lord only,
He alone will manifest it,
At its proper time,
It is heavy in the heavens and earth,
It comes not upon them,
But unaware". . .7(187).

The Hereafter". .27(65-66)

تُكُلُ لَّذِيعُكُمُ مِنْ فِ السَّلُوتِ وَالْدَرْضِ الْنَيْبُ إِلَّا اللهُ مُ وَمَا يَشْعُرُونَ فَ اَ يَّانَ يَنْعُثُونَ ٥

يَسْتُلُوْنَكَ عَنِ السَّاعَةِ آيَّانَ مُرْسَهَا الْهُ الْمُنْكَ عَنِ السَّاعَةِ آيَّانَ مُرْسَهَا الْمُ الْمُ قُلُ إِنَّمَا عِلْمُهَا عِنْدَ رَبِّى كَايُجَبِّيْهَا لِوَقْتِهَا إِلَّا هُو الْقُلْتُ فِى السَّلُوْتِ وَالْوَرْضُ الْمَانِيَةُ الْمَانِيَكُ وَالْوَرْضُ الْمَانِيَةُ الْمُنْتَةُ الْمُ

The verse 7(187) has made it clear beyond doubt; that advent of the doomsday, is a sudden catastrophic event, taking people by surprise on earth. It comes upon them but unaware. The concept of suddenness in the Doomsday is also apparent from the following verses:

"They wait not but one blast, Which will surprise them, While they are disputing". .36(49).

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مَا يَنْظُرُوْنَ إِلَّا صَيْحَةً قَاحِدَةً تَا خُذُهُمُ مَ وَهُمُ غَيَخَصِّمُوْنَ O

"And matter (of the hour of Doom). وَ لِللّٰهِ غَيْبُ السَّمَٰ وَالْاَرُضِ ۚ وَمَا اَصُرُ السَّاعَةِ إِلَّا اللّٰهِ عَلَى مُلِ السَّاعَةِ إِلَّا اللّٰهِ عَلَى مُلِ اللّٰهِ عَلَى مُلِّ اللّٰهِ عَلَى مُلّٰ اللّٰهِ عَلَى مُلِّ اللّٰهِ عَلَى مُلِّ اللّٰهِ عَلَى مُلَّ اللّٰهُ عَلَى مُلِّ اللّٰهِ عَلَى مُلِّ اللّٰهِ عَلَى مُلِّ اللّٰهِ عَلَى مُلِّ اللّٰهُ عَلَى مُلِّ اللّٰهُ عَلَى مُلِّ اللّٰهِ عَلَى مُلْ اللّٰهِ عَلَى مُلْ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلِّ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلِّ اللّٰهُ عَلَى مُلِّ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلِّ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلّٰ اللّٰهُ عَلَى مُلّٰ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلْ اللّٰهُ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُلّٰ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُنْ اللّٰهُ عَلَى مُنْ اللّٰ اللّٰهُ عَلَى مُلْ اللّٰهُ عَلَى مُنْ اللّٰهُ عَلَّا مُنْ اللّٰهُ عَلَى مُنْ اللّٰهُ عَلَى مُنْ اللّٰهُ عَلَى مُنْ اللّٰهُ عَلَى مُنْ اللّٰهُ اللّٰهُ عَلَى مُنْ اللّٰهُ عَلَى مُ

From these verses we can say with certainty that Doomsday on earth is not going to be the linear-end of solar system. On the other hand it would be the result of some accident in the solar system, a blast which will take the people on earth by surprise.

The verse 16(77) quoted above also indicates that it is not a too far event. On the relative astronomical time scale, the remaining time period is as if the time required to blink an eye. Relative to us, this may be quite a considerable length of time, but not too long.

# THE NATURE OF THE SUDDEN EVENT IN TERMS OF THE RECENT SCIENTIFIC FINDINGS

Above, we have seen from the Holy Quran that start-up of the Doomsday will be with a sudden terrible blast, "one shout" which will surprise the people, taking them unaware. Thereafter the process will be completed over a long period of time. If we survey the modern scientific ideas on this subject, surprisingly we also come to similar conclusions.

For example Geo-history of earth suggests that there have been at least five mass extinctions of the living beings on this planet since last 200 million years. This appears to be a cyclic phenomenon triggered by some extra-terrestrial causes. One theory is that every 26 millions years are so, a rain of comets, that last hundreds or thousands of centuries, bombard the earth. The impact of the some large comets spews enough debris into the atmosphere to destroy the living being and plants on earth. Thus regularly there have been small-scale glimpses of the pending event of the major doomsday.

Some theories suggest that such catastrophies are caused by the asteroids which circle our sun like other planets, and on occasions, for unknown reasons, these crash on to earth.

As for the mechanism of the apparent clockwise regularity of crashes of heavenly bodies on earth, some suggest that it is brought about by a companion start of the sun, which periodically comes close enought, to pull comets or asteroids out of their natural habitat, sending them hurting toward earth. Some assign this role to the slow bobbing ride of the sun on its journey in the Milky Way galaxy, which is an island of 100 billion stars.

The Milky Way is shaped something like a stunny-side-up egg, 100,000 lighty-years in diameter with a bulge (the yolk) in the middle and three flat, dustry arms (the egg white) forming a circle around it. Like all its fellow stars, the sun revolves around the galactic centre, taking about 250 million years to complete a round trip. As it moves, it bobs up and down, through the central plane of the galaxy, where most of the stars and dust clouds are concentrated. In this hazardous journey, possibility of a crash is always there, which may happen any time.

Evidence in favour of an impact is thus rapidly accumulating Scientific discoveries tend to conclude, if comets do strike in barrages every 26 million years from now, are in for some trouble.

But it is also possible, even probable, that long before that time, astronomers will spot a random, in-coming comet or asteroid nudged by the gravity of an outer planet or star, into a direct collision course with the earth, bringing its doomsday suddenly.

#### COMING OF THE DOOMSDAY: HIGH TECHNOLOGY PERIOD

As discussed already, although it is impossible to know exactly about the timings of the Doomsday, yet there are some qualitative indications in the Holy Quran, which may help us to appreciate its coming. One of the most prominent indications is the following:

Before the approach of that dreadful event, inhabitants of the earth would have reached a very high level of civilization. Mankind by then would have gained complete mastery over their environment. Earth would have been developed into a beautiful place to live. They would have gained control over its resources and would be proud of their technical marvels. It is then that doomsday comes and leaves them completely helpless. On this, the verse 10(24) is highly thought provoking; it says:

"(Doomsday would not begin)
Until when the earth,
Put on its golden rainment,
And it becomes adorned,
And its people think,
They are the masters of it,
Then our command comes to it,
By night or by day"...10(24).

حَتِّى إِذَا آخَذَتِ الْاَرْضُ زُخُرَفَهَا وَاذَّيَّنَتُ وَظَنَّ اَهُلُهَا ۚ اَنَّهُ مُ تَادِرُوُنَ عَلَيْهَا ۗ اللهَا اَمُرُنَا لَيُلاَ اَوْ نَهَارًا

This scenario is of the height of the human civilization, science and technology. Present age seems close to achieving this goal. To some extent they have already started controlling their environment and are freely exploiting its resources. Deserts are being converted to gardens and even far off areas are being developed into places of beauty.

Another aspect of this development is mentioned in the verses 55 (33-34), which say that before its Doomsday, human beings on earth would have acquired the capability of deep space travel also. When they would see the signs of the approaching fate on earth, urge of survival will persuade them to leave it and seek refuge in other regions of the universe:

"O! Company of Jinns and mankind,
If ye have the authority,
To penetrate regions of heavensand earth,
Then penetrate them,
Ye will never penetrate them,
Save with power,
Which of the favours of your Lord,
That ye deny". .55(33-34).

يُمَعُشَّرًا لُحِنِّ وَالْإِنْسِ إِنِ اسْتَطَعْتُهُ ٢ نُ تَنْفُذُ وُامِنَ ٱقُطَارِ السَّلُوتِ وَالْوَرضِ فَانْفَذُوْا \* لَا تَنْفُذُوْنَ إِلاَّ بِسُلُطْنٍ ٥ فَبِاَتِي الْآءِ رَبِّكُمَا تُكَذِّبِنَ ٥

God will thus favour mankind and the jinns—a kind of energy beings whom, by that time, man would have not only known but befriended also — with the power to leave the earth. However even that will be of no avail. As they will be flying out they will face fatal problems of heavenly smoke, dust meteors and extreme heat, which will destroy them. So there would be no escape from the doomsday. This awful fate is pointed out in the following verses:

"There will be sent against you both, Heat of fire and flash of brass, That ye will not escape". . .55(35). يُرْسَلُ عَلَيْكُما شُوَاظُ مِنُ اَرِدٌ قَ نُحًا سُ فَلَا تَنْتَصِرُكِ O

As predicted above we are now witnessing the beginning of the space-age also. The future is clear; Doomsday may not be too far. Shall we not believe even then?

# MECHANISM OF THE EARTHLY DOOMSDAY

There are various verses in the Holy Quran which describe vividly the events of Doomsday of the earth. From these events, a scientific mind may work backward and trace out the causes. Some of these are highlighted below:—

Great Crash

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Start up of the Doomsday on earth will be sounded by a great crash which will create an extremely high-intensity sound wave, much more severe than the blast of any kind or explosion. This has been devoted by the name Soor ( ) in the Holy Quran. It will be heard everywhere and effect everyone. In this context the following verse is highly meaningful:

"And when the Soor shall sound,
One blast,
Earth with the mountains,
Will be lifted up
and crushed with one crash,
Then on that Day,
The Event will fall" . 69(13-15).

فَإِذَا نُفِخَ فِ الصَّوْرِ نَفُخَةُ وَّ احِدَةٌ کُ وَّحُمِلَتِ الْدَرْصُ وَالْجِبَالُ فَدُكَّتَا دَكَّةٌ وَّاحِدَةً کُمْ فَدُكَتَّا دَكَّةٌ وَّاحِدَةً کُمْ فَيُوْمَئِذٍ وَ تَعَتِ الْوَاقِعَةُ کُمْ

Thus the event of the Doomsday begins with a great crash. Force of impact will be so severe that, inspite of its tremendous intertia, earth will be pushed out of its orbit around the sun. This will then set a series of turbulent events, leading to the final End.

# Earth will be Pushed out of its Orbit

Scene of the crash in the verses 69(13-15) indicates that it would be due to some extraterrestrial mechanism, may be a giant asteroid or some other heavenly object of large mass will strike and push earth out of its present position in the solar system. It is infered from the description of some other verses of the Holy Quran that nature of this impact would be such that it will push the earth toward the sun, which means gravitational pull of sun will increase on it. Probably new orbit of earth would be like the gradual shrinking of a spiral disc, which will move it closer to sun in each revolution. Fig. 1 illustrates the way it may happen.

#### High Temperature on Earth

There are verses in the Holy Quran which indicate that during doomsday, temperature on earth will exceed far above its normal value. This could probably be due to its having been brought closer to sun as discussed above. Under the combined effect of high temperatures and higher solar gravitational pull, earth would begin to lose its atmosphere, water in the oceans will then begin to boil:

"When the oceans, Boil over" . . . . 81(6). وَإِذَا لَٰجِعَادُسُجِّرَتُ ٥

A contributory factor to the boiling of oceans may be the release of internal heat of earth, due to excessive volcanic activity during the Doomsday as explained below:

#### Fire in the Oceans

Further to the boiling of oceans, revelation 82(3) points out that during the doomsday oceans will be set on fire:

"When the oceans Burst on fire, And when the graves are overturned". .82(3-4).

وَإِذَالَٰبِحَارُ ُفَجِّرَتُ ﴾ وَإِذَالُفَتَهُ وُرُبُّعُ بَرَّتُ ﴾

It seems that cause of fire in the seas must be other than the simple effect of higher solar energy received by the earth. The adjoining phrase, "when the graves are overturned", signify that fire in the oceans would be due to the bursting of the earth's interior which can happen if there were voilent earthquakes and volcanoes.

Since we know that water cannot catch fire easily, therefore we may infer from the above verse that interior of earth might be containing large amount of carbon matter, like methane, which on leaking out from the beds of seas, would catch fire and produce the effect of oceans on fire. Same is possible through the spil of under-sea petroleum reserves, which may be caused by the high magnitude earthquakes under the seas, which are going to be too frequent during the Doomsday as will be seen from the Quranic verses to be discussed later on.

# Earth's Atmosphere filled with Smoke

The verses 44(10-11), point out that one feature of doomsday would be large amount of smoky matter in the atmosphere of earth. There can be various possibilities for this happening. This could be through volcanic action and also due to the crash pointed out in the verse 69(13-15), discussed above. Same is also possible due to some explosion in the nearby planet or in the sun itself, which can fill the space with plasma of hot gaseous matter. Following verses throw some light on this subject:

"Watch for the Day,
When the heaven will bring forth,
A kind of smoke,
Plainly visible,
Enveloping people,
This will be painfully
grievous"...44(10-11).

فَارْتُقِبْ يَوْمَ تَاتِي السَّمَاءُ بِدُخَانٍ شُبِينِ ﴿ يَغْشَى النَّاسَ ط هَذَاعَذَابُ المِسْفُ ۞

Nothing that smoke is said to be overcasting earth from heaven, most probable mechanism of this could be due to the large-scale disturbance in the sun itself. Already science is familiar with the solar flares, which occasionally shoot out from the sun upto distances of hundreds of thousands miles, scattering hot plasma into space. It can happen on a much larger scale also. In that case it would be plainly visible from earth, gradually setting and finally enclosing it fully. However, considering the enourmous distance separating earth from the sun, it may take 20 to 30 years when actually smoke may reach the earth. Fig. 5 shows a glimpse of this phenomena.

The above mechanism is further illustrated in the verses 75(7-11), given below:-

"The sight is confounded,
And the moon is eclipsed in darkness,
And the sun and moon,
They are joined together
On that day,
Man will cry,
Whither to flee?
Alas, no refuge". . 75(7-11)

فَإِذَا بَرِقَ الْبَصَرُ ﴾ وَخَسَفَ الْقَهَرُ ﴾ وَجُجِعَ الشَّمْسُ وَالْقَهَرُ ﴾ يَقُولُ الْإِنْسَانُ يَوْمَوْذٍ آيْنَ الْمَفَرُّ ۚ كَلَّا لَاَوْزَرَ ۚ كَلَّا لَاَوْزَرَ ۚ

Confounding of the sight could be due to the bright flash of solar flares produced at the start of the event. Eclipsing of moon in darkness would be after the space is littered with the smoky stuff preventing the sun-light reaching it. Atmosphere of earth would also be gradually littered with poisonous solar smoke, causing suffocation. The terrible state of affairs is reflected by the last part of the revelation, when mankind cry in the state of utter helplessness, "where to flee", and there is no refuge.

Catching of Moon by Sun

Revelation 75(8-9) has also referred to the moment in Doomsday when earth would loose its moon:

"The moon is eclipsed darkness, And the Sun and the Moon Are joined together". .75(8-9).

وَجُمِعَ الشَّمْسُ وَالْقَمَرُ ݣَ

How will it happen? There can be several causes. One probable reason, would be due to the earth coming too near the sun. After the great crash, earth would slip away from its present orbit as shown in the figure-1. Due to the momentum of the impact, it will adopt a spiral type of orbit, thus getting closer to the sun after each revolution. A stage will come when the higher field of gravity of the sun, will snatch the earth's moon. In this respect we already know that the planets mercury and venus, which are nearer to sun than earth, have no moon.

Breaking of Moon into Pieces

Another very significant event of the earthly Doomsday is that our moon will crash into pieces. This might happen due to the strike of some large meteor; or internally by some explosion in its core; say a voilent moonquake. Impact theory, however, provides us with one likely explanation of the way moon might drift away to join the sun, discussed above. Following verse, which speaks of moon being broken into pieces during the doomsday, seems to support this assumption:

"Hour of the Judgement is near, And the moon, It will be cleft asunder"...54(1). إِقُتَّرَبَتِ السَّاعَةُ مُ وَإِنْشُنَّ الْقَسَرُ ۞

Doomsday and Solar System

One of the most significant events of the doomsday described in the Holy Quran is that sun will drift away from its present position in the galaxy. At present it is known to have a fixed orbit,

on which it completes one cycle in about 250 million years. A few centuries ago people used to think of the sun as a stationary object in the heavens. But Holy Quran had hinted upon its journey in space in the following words:

"And the Sun
Keep on rushing (in space)
On a set path,
This is the pre-fixed design,
of the Most powerful"...36(38).

وَالشَّهُ مُن تَجُدِی لِمُسْتَقَرِّلَهَا ﴿ لِكَ تَفُّدِ يُرِالْعَزِيْزُ الْعَلِيْمِ ۚ

In this journey, sun passes through various regions of space. Some areas have higher population of heavenly bodies than others. Some areas are more turbulant than the others. Near the Doomsday, Holy Quran says, something will happen and sun will be thrown out of its normal path: (Fig 6):

"The Day when,
The sun is everthrown,
The stars fall loosing their light,
And the mountain, vanish"...81(1-4).

إِذَ الشَّسُّ كُورَتُ كُورِتُ كُورُ كُورِتُ ك

This means that Doomsday of the earth is actually an event of the overall Doomsday of the solar system. Crashes on earth, dispersion of planets, filling of smoke in space, catastrophe of moon, repeated earthquakes and violent volcanic activity-all these would be part of that great disastor. Fig. 4 shows some examples of such events now going on the universe, seen by man in the 20th century.

### Earth quakes

Holy Quran also informs us that during the Doomsday, earth would experience terrible earthquakes, utmost convulsions and servere vibrations, leaving its crust rent apart, structures destroyed mountain uprooted, volcanoes burst open, internal molten lava gushed out.

Following are some of the verses, highlighting this side of the story:

"When earth,
Is shaken again and again,
To her utmost convulsions,
And it throws up,
Her burden from within"...99(1-2).

إِذَا زُلُزِلَتِ الْاَرْضُ زِلْزَا لَهَا كُ وَا خُرَجَتِ الْاَرْضُ اَثْقَاكَهَا كُ

Earth being shaken again and again would mean a continuous series of severe earthquakes, magnitude of which would really be very severe. Current scientific knowledge is that even the earthquakes of intensity about 8 on Ritcher scale are highly disastrous for all types of man-made structures. At 9 and over, earth's crust opens up, mountains break, rivers disappear and volcanoes get triggered. In a series of earthquakes of intensity over 9, earth would be levelled off, with everything upside down.

However, conditions of earth during Doomsday as depicted in the Holy Quran, seems much more severe than what could be caused by the simple action of earth quakes. Following verses need careful analysis:

"On That Day everything that can be in commotion will be in commotion, Followed by oft-repeated commotion"...79(6-7). يَوْمَ تَرْجُفُ الرَّاجِفَةُ كُ تَتْبَعُمُا الرَّادِفَةُ كُ

Further to that.

"The earth will be ground to atoms, Pounded over pounded"...89(21).

كُلَّا إِذَا دُكَّتِ الْاَرْضُ دَكًّا مَكًّا لَكُ

This scene is like that of a ball mill used to crush rocks. Accordingly, it is probable that besides the shake up, earth will also be pounded by the crashing heavenly objects simultaneously. Possibly, this phase of the Doomsday would be associated with showers of meteors on earth from outside.

Mountain Turn into Sand

Another significant feature of the doomsday described in the Holy Quran is that, during this phase, all high grounds, hills mountains and valleys on the surface of earth will be levelled off, leaving no surface irregularities. Mountain will turn into dust, flying around. This also means blowing of very strong winds on earth during its Doomsday. Earth will then be rendered nothing but a barren mound. In this respect the following verses are highly meaningful:

"They ask thee concerning the mountains, Say, My Lord will break them, and scatter them as dust,

He will render(earth)
Plain, smooth and level,
Nothing crooked or curved,
Will thou see in their place". .20(105-107).

وَيَسْتُلُونَكَ عَنِ الْجِبَالِ ثَقُلُ يَشِنْهُ مَا رَبِّثُ نَشْقًا ﴿ فَيَذَرُهُا قَاعًا صَفْصَفًا ﴿ لَا تَرْى فِينُهَا عِرَجًا وَلَا آمْتًا ﴿ لَا تَرْى فِينُهَا عِرَجًا وَلَا آمْتًا ﴿

Moreover;

"Thou see the mountains, And think them firmly fixed, But they shall pass away, As the clouds pass away". 27(88).

"And the mountains, They will become like carded wool"...101(5).

"When the earth shall be shaken to its depth, And the mountains shall be crumbled to atoms, Becoming dust scattered abroad"...56(4-6). وَتَرَّى الْجِبَالَ تَحْسَبُهَا جَامِدَةً وَّهِى تَمُرُّمَرَّ السَّحَابِ الْ وَيَكُذُهِ مَدَّ مِالُحِمَالُ كَالُحِهُ : الْمَنْفُدُ ش رَّ

> إِذَا رُجَّتِ الْوَرْضُ رَجَّا ﴿ وَ لُبُسَّتِ الْحِبَالُ بَسَتًا ﴿ ثَكَا نَتْ هَبَاءً مُّنْكِتًا ﴿

How shall it happen? Under ordinary circumstances, we are aware of the slow crumbling process

of rock. Nature's agents, such as wind, rain, plants, temperature variations and chemical reactions, all help in breaking the rocks. Sand and silt in the rivers and canals is actually part of the crumbling mountains. However the destructive scenario depicted in the above verses seem to be something more than the ordinary decay process.

One possible mechanism could be due to the repeatedly occurring earthquakes during the periods of doomsday. Mountains are the means of stabilizing earth<sup>8</sup> against inherent vibrations. Therefore destructed of the mountains could provide a positive feed-back effect and thus cause more shake up of earth.

It is also known that if intensity and frequency of vibration increases above a certain threshhold level, solids begin to loosen and disintegrate. A similar process might be in swing in the periods of Doomsday, which would render mountains as dust.

However the phenomena of shooting up of the mountains or their becoming like the carded wool flying allround, cannot be explained by the hypothesis of vibrations alone. It might happen due to the multiple effect of earthquakes, impacts of falling heavenly bodies, severe volcanic activities; all at the same time which will rip the mountains apart. The scene would be like that of breaking of the mountains by the use of explosives, which suddenly throw large rock masses flying in the air.

Phenomenon of extreme earthquakes, vibration and grinding of the earth masses, explosive release or energy and flying of mountain pieces, can also be explained by the hypothesis of exploding of the internal core of earth. It is known that interior of earth is under extremely high pressure, which is in delicate equilibrium. In this respect earth is like a super high pressure vessel. If per chance, it fails, the earth could explode like a bomb, with tremendous release of energy, combined with extremely high pressure waves, shake ups and explosive flying of the earth's crust and mountains.

#### Last Days of Solar System

Earlier we studied that start up of the Doomsday is with the strike of some huge heavenly object on earth which will throw it out of its normal orbit closer to the sun. Under the new circumstances, distance of earth from sun would reduce in each revolution, which inturn would increase the gravitational pull of sun. One consquence of this, as discussed already, would be of moon leaving the earth and joining in the sun. On the other hand, increased solar gravity would also induce strong sea tides covering the land surfaces with water. Nearness to sun would also increase solar heat. Combined together with the release of heat from the earth's internals, snow in the mountains and on the poles will also melt away. Thus earth will be drowned in water. Concurrently, due to the rapid process of evaporation, there would begin a phase of continuous rains on earth, as it used to be in the early days of earth's history. But soon, due to the enhanced solar gravity, sun will deprive the earth from its water also, leaving it a barren mound of rubble 18(8), but ultimately even that will not remain there. It will be devoured by sun, leaving no trace of its existance. However, even therafter, the sun will continue its travel in the galaxy on a wobbling path. In this hazardous journey it may cause many heavenly, accidents, like we see being caused by a drunken truck driver on the highway. Finally, it will also explode like a supernovae, thus scattering whole of the solar mass in the form of dust clouds in the galaxy and vanished as if it had never النَّا لِلَّهِ وَإِنَّا إِلَيْتُهِ رَاجِعُونَ ... ) been there. Indeed we came from Him and go back to Him. But that is not the end of the universe, which on the whole, would continue living for some more time, least bothered of the tragedy of our solar systems because for it such happening are a normal routine in its unimaginably vast organism of heavenly worlds. However, nothing is everlasting,

and as has been discussed in the Part-I of this paper, there will come the Ultimate Day, when the trumpet will be blown and universe would reverse back to its point of "Nothingness", a point of no return then.

2nd Beginning; New Universe

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As discussed above, Doomsday of earth is one of the series of such calastrophies which regularly occur in the universe. This is the End of an individual solar system in a small part of the heavens only. On the universal scale, it is such minor incident that our Milky Way glaxy, which is one out of millions in the heavens, have well over a billion solar systems like ours. Many of those may be having living worlds' like the earth. But there is to come a time when: whole of the universe, will however, begin to contract and that will mark the start-up of the "Ultimate Doomsday". Culmination of this process would be in the implosion of the contracting universe, which will also be the beginning of the New Universe, a much bigger creation of God. Fig. 2 illustrates the mechanism of this happening.

Process of rebuilding after the ultimate Doomsday has been promised in the Holy Quran in its following revelation:

"As We began the first creation, Surely We shall repeat it, It is a promise upon Us, Lo! We are to perform it"... 21(104) يَوْمَ لَطُوى السَّمَآءَ كَطَيِّ السِّجِلِ لِكُتُبِ \* كَمَا بَدَاْ ثَاَا وَّلَ خَلْقٍ ثُعِيْدُهُ ﴿ وَعُدَّا عَكِيْنَا ﴿ رَقَ كُنَّا فَعِيلِيْنَ ۞

The recreated universe will not be a replica of the present one, but a grand system of new heavenly bodies, very much bigger and different from the present one:

Earth will be changed,

To a different earth,

And so will be the heavens"...14(48)

يَوْمَ تُبَدَّ لُ الْاَرْصُ غَنْرُ الْاَرْضِ وَالسَّلْوٰتُ وَبَرَزُوُوْ الِلْهِ الْوَاحِدِ الْقَهَّارِ ۞

The new universe will be divisible into three broad regions, Paradise, Neutral and Hell. Paradise will be the permanent abode of the universeal community of the righteous people of all the times of all the worlds. In size, says Holy Quran, it is unimaginably big.

"A Paradise, where of the breadth is, As the breadth of The (present) heavens and earth, which is waiting, For those who believe"... 57(21)

وَجَنَّةٍ عَرْضُهَا كَعَرُضِ السَّمَآءِ وَالْاَرْضِ<sup>ال</sup> اُعِدَّتْ لِلَّذِيْنَ امَنُوْا بِاللهِ وَرُسُلِهِ طَ

Thus size of Paradise is bigger than we can imagine. The one heaven of which sicience has got some idea, is estimated to consist of millions of galaxies, whereas each galaxy is approximately an island of 100 billion starts. Width of just one galaxy is so big that light takes 100,000 years to reach from its one end to other. From here one may imagine the size of all the heavens and earth. Size of the Paradise in the next universe will be even bigger than that and as far the size of the entire order of the next world, it is beyond the imagination of human beings. Similarly, sizes of the Hell and Neutral will also be extremely big.

Accountability and Life in the New Universe.

Next order of existence, Holy Quran says, is a place of reward and punishment, in accordance with what human being earn in their first phase of existence. People will enter there at various levels depending upon the development of their spiritual life. These levels may be considered synomy. mous to the orbits around an atom, each having a certain energy level. Only the electrons of the appropriate energy can occupy a given orbit.

Along side the state of Paradise, there is the opposite order of existence, a place of refinement, a melting pot for the purification of souls. Among the paradise and the hell, there is also a neutral state of existence, a state of preparation to enter the paradise.

Life in the new universe would not be without the urge to go up. As we have inclination in this world for the riches and recognition; souls in the next world shall also yawn for to achieve the higher levels of existence in the paradise. Ultimate state of satisfaction will be in the union with the God, the very cause of the heavens and earth and of everything therein. Effort, struggle and urge will thus continue for ever with man, both in the hell and in the paradise also.

Climax of the 2nd order of existence is the very Day of accountability( يَرُ مُ حِسَا بُ ). The final stage of 2nd Soor, is the rising of the dead from their graves i.e. the after-death-state of existence which is the dormant dream-like state of existence. Souls after death pass into this phase. Herein, there is no real reward or punishement but only the thoughts of the past deeds and imagination of the pending fate of future; which keep a soul happy or unhappy as per its merit. This state will end suddenly on the final call of accountability, the 2nd Soor, sounded by the great implosion:

"Surely it will need but one shout, And Lo! They will be awakened, Out of their graves". . 79(13-14) فَاِنَّمَا هِيَ نَجُرَةٌ وَّاحِدَةٌ لَّ فَاِنَّمَا هِي نَجُرَةٌ وَّاحِدَةٌ لَّ

All people, of the generations, of everywhere in the universe, will respond to this call and swarm toward their ultimate fate from allaround. The scene is depicted in the verse 101(4):

"(It is a Day when)
All mankind would stand,
(Before the Lord of the worlds,)
As thickly packed moth"...101(4)

يَوْمُ يَكُوْتُ النَّاسُ كَا لُفَرًاسِ الْمَبْثُوْتِ ﴿

That is the state of waiting in the Court of the judge, who cannot be cheated, who knows everything. Who is All-Powerful, but Most Compassionate, In anguish they will be reflecting into their past deeds and passing judgement on themselves. Very thought of the mis-deeds would be horryfying, putting them into shame. Following revelations describe this scene vividly:

"On that Day, Hearts beat painfully, While eyes down cast". . 79(8-9)

"Thy Lord shall come, with angels rank upon rank And the Hell is brought nearer". . . 89(22-23).

"And Paradise is brought near". . . 81(13)

It is then that;

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"Every soul will know, What it has made ready"... 81(14)

"Who so does good, an atom's weight, Will see it then, And who so does ill, an atom's weight, Will see it then". : .99(7-8).

At that time;

"As for him,
Whose scales are heavy (with good works)
He will live in a pleasant state,
But as for, whose scales are light,
The brefet and hungry will be his abode,
Ah, what will convey thee, what she is,
A raging fire"... 101(6-11).

وَجِائَ مَ يُوْمَثِ ذِيجَهَنَّ مَ لَا الْمَثَ الْمُ اللهِ الْمَثَلُ اللهُ الْمُثَلِّ اللهُ الله

فَكُنْ يَعْمَلُ مِثْقَالَ ذَرَّةٍ بَعَيْرًا تَيَرَهُ ٥ وَمَنْ يَعْمَلُ مِثْقَالَ ذَرَّةٍ شَرَّا يَكِهُ ٥

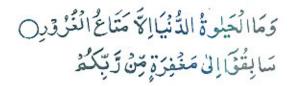
فَامَّامَنُ ثَقُلُتُ مَوَازِيْنُهُ ۚ ثُ فَهُوَ فِكَ عِيْشَةٍ تَاضِيَةٍ ثُوكَامَّا مَنْ خَفَّتُ مَوَازِيْنُهُ ثُلُ فَأُمُّهُ هَادِيَةٌ ۖ ثُ وَمَّا اَدُلالكَ مَاهِيَهُ ثُ ثَارُّحَامِيَةٌ ۖ ثُ

Purpose of the life in this world, is actually to prepare ourselves for the life in the next world. Death is but only a phase-change in the continuous existence of the individual. In this world, we always plan for a happy future, but how unfortunate, is that we forget what lies ahead of us. This could be attributed to the lack of knowledge of our realselves. But even there is no excuse, as God has been kind to mankind by sending His prophets to guide them in the right path. Even then if any one believes that death is the 'end; he is but on the wrong path. They believe in the law of conservation of matter and energy, but when it comes to themselves they forgets all this. Holy Quran informs us of the law of conservation of our soul; and therefore advises us to plan for the future life where-after there is no end. In it, is contained the God's message in the purest form. Example of the life of the last of His Messengers is also in front of us in a very comprehensive manner. Those who abide by it are the winners; and those who neglect it, would be the loosers.

"Know that: Life of this world is, But play and amusement. Pomp and mutual boasting. And rivalry for wealth and children, Here is a similitude. Like the vegetation after rain. Whereof the growth is pleasing to the tillers. Soon it withers. And thou see it turning yellow, And then it becomes straw; And in the Hereafter. There is grievous punishment. And also. Forgiveness from Allah. And His good pleasure. Whereas.

إغكمُنَّا انْخَاالُحَيلُ الدُّنْيَا لَعِبُ وَكَهُنُ وَ زَيُنَةُ وَتَفَاخُنُ بَيْنَكُمُ وَكُمُ فِى الْوَمُوَالِ وَالْوَلُودُ كَمَنَظَلِ غَينْتُ اعْجِبَ الكُفَّادَنَبَا تُهُ ثُمُّةً بِيُعِيْجُ فَتَلْمَهُ مُصْفَرُّا ثُمُّةً يَكُونُ حُطَامًا اللهِ وَفِى الْآخِرَةِ عَذَابُ شَدِيْدُ لا قَهَ فَفِرَةٌ اللهِ وَرِضْوَانُ اللهِ وَرَضْوَانُ اللهِ وَالْوَانُ اللهِ وَرَضْوَانُ اللهِ وَرَضْوَانُ اللهِ وَالْمُؤْوِنَةُ اللّهُ وَرَضْوَانُ اللّهِ وَالْمُؤْوِنَةُ اللّهُ وَاللّهُ اللّهِ وَرَضْوَانُ اللّهِ وَالْمُؤْوِنَةُ وَاللّهُ اللّهُ وَالْمُؤْوِنَ اللّهِ وَالْمُؤْوِنَ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَالْمُؤْوِنَةُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ وَاللّهُ وَاللّهُ وَاللّهُ اللّهُ وَاللّهُ وَاللّهُ اللّهُ وَاللّهُ وَاللّهُ وَاللّهُ وَاللّهُ وَاللّهُ وَاللّهُ وَاللّهُ وَاللّهُ وَاللّهُ وَالْكُونُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ اللّهُ وَاللّهُ وَلَالْمُولِولُولُولُولُولُولُولُولُولُولُولُولُو

Life of World is but matter of illusion, Therefore, Race one with another, For the forgiveness from your Lord" .....57(20-21)



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- For detail please refer to chapter 6 section 3-12 of the author's book, "Holy Quran as a Source of Scientific Thought" (To be printed).
- 4. Ibid, See Author's book.
- Baker and Fredrich, "An Introduction to Astronomy" Book Pub. Van Nostrand Co. Holland.
- 6. Author's book, CHAPTER-10.
- Time, "Did Comments kill the Dinosaures" (Page 45-55), May-6, 1985.
- 8. Chapter 11 of the author's Book.
- Thornton Page and Lou Page, "The Origin of the Solar System" The Mecmillan Co. New York-1966.

NOTE: Author acknowledges thanks to Allama Yousaf Ali and Muhammad Marmaduke Pickthall, as he has relied upon their translations of the verse of the Holy Quran.

OR

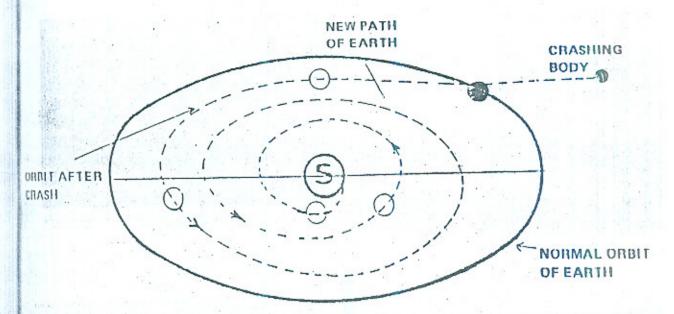


Fig.1. Crash of some heavenly body would push away earth nearer to sun, which will snatch its moon, latter nearness to sun will cause huge solar flares filling the space around with smoke. Deep in the earth there will be internal convulsions, earthquakes, volcanoes; other planets of solar system will also be disturbed.

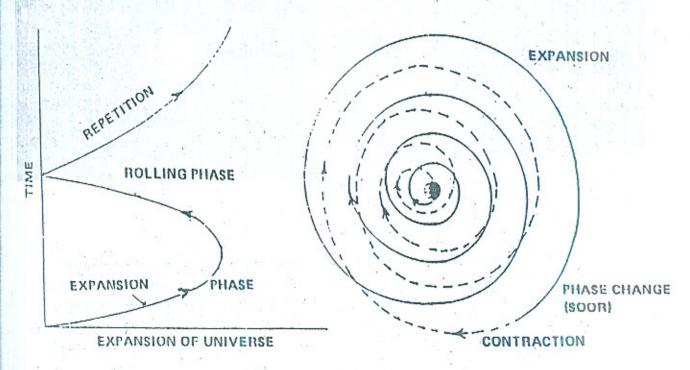
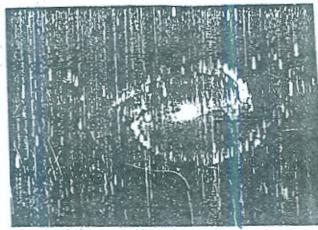
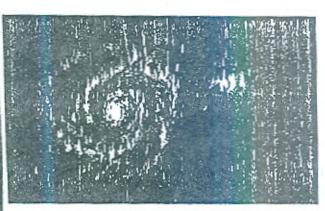


Fig.2. Phenomenon of first expansion and then contraction of universe:
"REMEMBER THE DAY,
WHEN WE SHALL ROLL UP THE HEAVEN
AS A RECORDER ROOLS UP A SCROLL,
LIKEWISE WE BEGAN THE FIRST CREATION,
SURELY WE ARE GOING TO REPEAT IT"



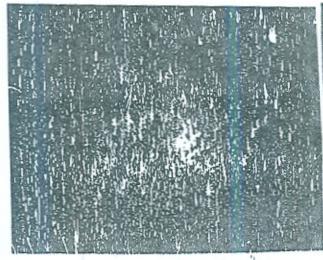
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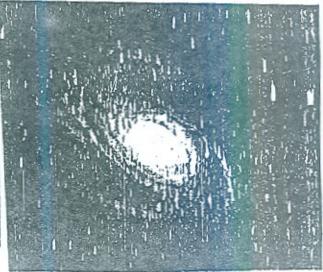
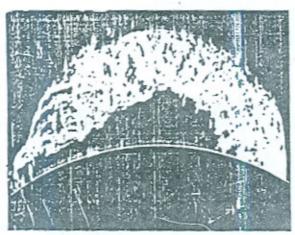


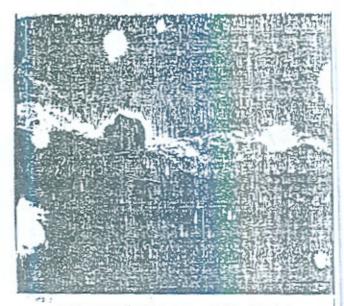
Fig. 3 showing examples of the construction of some of the more explored galaxies, showing a spiral shape, gradually opening up, like the pages of a scroll on depicted in the Holy Quran in Its verse .21(104). Same must be true for the universe as a whole also. Ultimately the scenario will be wound back to its origin as said in the verse 21(104).



Looped pramineners often contain material "raining" downward on the sun. These were associated with an active solar expent that caused tenestrial radio-noise storms on or about April 27, 1950. (High Altitude Observatory photograph)

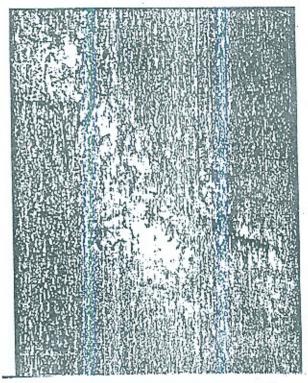


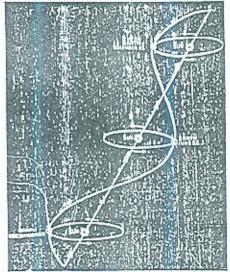
The Magnificent Solar Prominence of June 4, 1946. Note size of earth indicased by white circle at lower right, (High Athitude Observatory photograph, Boulder,



. Great counic clouds of dust and gas appear bright and tlark in the Horschead nebula region of Orion, [Yerkes Observatory photograph]

Fig 5: Near the time of earth's doomsday, it will be overcast by smoke, which will fill the space alaround. The Figure shows the photograph of the solar flores which explode out occasionally and throw the solar matter in space. At the time of earthly doomsday, storm in the sun may throw the smoke as far as our earth.





The sun does not stand still. (Courtesy Hayden Planetarium Bulletin)

Fig.6. The sun keeps on rushing in space to some predestined destiny 36(38); at a speed of about 20 KM per second. This is a hazardous journey in the heavens which houses as many as over a billion galaxies and millions of trillions of stars, planets and other type of heavenly bodies. Possibility of a crash cannot be ruled out.