

# Chapter 3 Our Fate



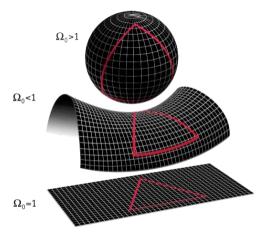
#### **Our Fate**

In a billion years, the Sun would have heated up to such a degree that life will become uninhabitable on Earth. The end could come sooner though. The threat of nuclear warfare is known to all. More threatening perhaps are large objects from space such as asteroids and comets that have come close to colliding with Earth on several occasions. These objects are terrifying as they are hard to detect ( they are sometimes detected after they pass our orbit) and could bring an end to our world in an instant. But the fate of humanity is not our concern here. What of the Universe? What happens after life on Earth fades away? In brief, there are 3 prominent theories on the fate of the Universe, all of which are tied to the forces of gravity and expansion.

If the density of the Universe is below a certain threshold called "critical density", the gravitational force present will **not** be enough to stop the Universe from expanding and thus it will continue to do so. This scenario assumes that our Universe is Open. What happens then is unknown. The Universe could expand infinitely at such a rate that it rips all matter apart in a "Big Rip". On the other hand, the expansion could result in "the Big Freeze", where existing stars will slowly extinguish, new stars will not be formed, and the Universe will become utterly dark, cold and lifeless.

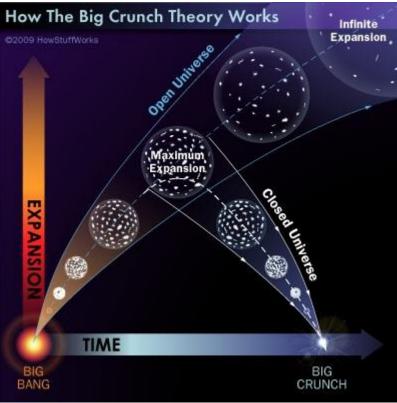
If the density of the Universe is equal to the critical density, the Universe's expansion will eventually slow down. The Universe, will seemingly continue to exist forever. This scenario assumes a "Flat Universe". Finally, if the Universe has more matter than the threshold specified (described as a "Closed Universe"), it will eventually stop expanding and then start contracting. The contraction will continue, crashing galaxies into one another until the Universe, with all its matter, contracts to such a point where it is no larger than a pin prick (Figure 3.2). The Universe returns to singularity; the starting point of the Universe discussed in Chapter 2. It is a state where time, space, and the Universe come to an end. This process of contraction is called "The Big Crunch". What happens after that is hard to predict. Some expect another "Big Bang" that will create a new Universe.

Figure 3.1 – The Universe's Geometry



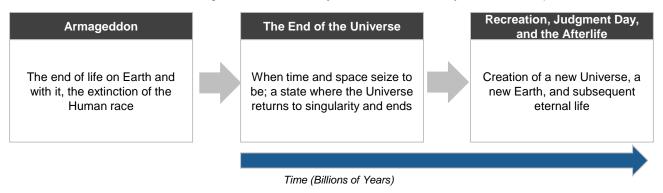
Currently, observations indicate that our Universe is most likely an Open Universe However, we are far from certain of this. There are too many variables that we unfortunately don't understand such as dark energy and dark matter that have a significant impact on our calculations. In short, we don't know what is going to happen.

Figure 3.2 – The Big Crunch



#### The End?

When it comes to the Holy Quran, the end is simpler and much less glamorous than its Bible counterpart, "The Book of Revelation". In fact, reading the Quran carefully, I was able to identify three distinct phases:



There is no indication to how much time separates these phases, but we do get a brief description on each.

The Quran's verses may indicate that the end of life on Earth could be the result of foreign objects, most likely asteroids bombarding our Planet. Off course, there is a good chance that I am mistaken in my interpretation as verses describing this phase are somewhat cryptic. None the less, here is why I think this scenario may occur.

It will come upon them suddenly, confounding them. They will not be able to repel it, nor will they be respited

There are many other verses that stress the word when describing the end of life on Earth. The word effectively means to shock, or confound. As discussed earlier, foreign objects are hard to detect and we are sometimes unaware of them until they have passed by Earth safely. Their ability to end life in an instant lends support to my hypothesis. The idea that we cannot repel it, despite Hollywood's portrayals, could also indicate that it is an asteroid. One final clue can be found in other verses where the end is described as like "the twinkle of the eye or even shorter" which may indicate an object travelling at a high speed.

Figure 3.3 - Artist Impression of Asteroid hitting Earth



## Or the beginning?

Regardless of how life ends on Earth, The Quran does describe how the Universe will end and how a new Universe will be created. This description can be found in the same Chapter that described The Big Bang so eloquently, and is also the Chapter in which the previous verse that describes Armageddon was taken from. It is Chapter 21 - "The Prophets".

When We will fold the heavens like the folding of a [written] sheet for the records. As We began the first creation, We will repeat it. [That is] a promise binding upon Us. Indeed, We will do it.

Unfortunately, the English translation fails to convey the meaning of the verse. The verse states that at the end of days, God will fold the Universe on itself in a similar fashion to the folding of a page in a book. It is an accurate description of a contracting Universe, contracting until it reaches singularity (Figure 3.2). Other verses also describe this "Big Crunch", (see Figure 3.4 on the right).

The second part of the verse states that once this is done, Allah promises to recreate the world in the same manner used to create this world. Considering He described the beginning of creation by referencing The Big Bang earlier in the same Chapter, the verse is implying that once the Universe has been folded up into singularity, another Big Bang will create a new Universe.

Figure 3.4

Other Verses supporting the contraction of our Universe (Big Crunch)

وَمَا قَدَرُوا اللَّهَ حَقَّ قَدْرِهِ وَالْأَرْضُ جَمِيعًا قَبْضَتُهُ يَوْمَ " الْقِيَامَةِ وَالسَّمَاوَاتُ مَطْوِيَّاتٌ بِيَمِينِهِ ۚ سُبْحَانَهُ وَتَعَالَىٰ عَمَّا يُشْرِكُونَ

"They have not recognized Allah's true measure. The whole Earth will be a mere handful and the Heavens folded up in His right hand at the time of resurrection. Glory be to Him! He is exalted above the partners they ascribe!"

There are many verses that support the idea of a Second Big Bang. These verses not only provide us with a glimpse of the future, they also further corroborate evidence of the Quran's accurate description of The Big Bang.

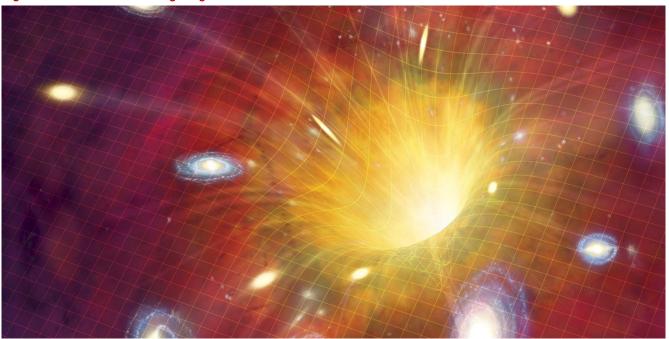
When the Heavens are cleft asunder (split apart). And when the stars / planets are scattered about

For example, the verse above describes the heavens (Universe) splitting apart and stars and planets being created and dispersed across the Universe. This is an accurate description of The Big Bang. There are similar descriptions in other chapters which, for example, proclaim "when the stars are scattered about" (Chapter 81, Verse 2) in reference to events before Judgement Day.

## The Second Big Bang

Other verses proclaim "يَوْمَ نَكُونُ السَّمَاءُ كَالْمُهُلِ" – "On the day when the Heavens will be like Molten Brass". If you recall, our Universe was extremely hot after The Big Bang.

Figure 3.5 - Illustration of The Big Bang and associated heat



One final piece of evidence of a Second Bang can be found in Chapter 14 "Abraham"

In description of Judgement Day "At a time when the Earth will be replaced by a different Earth, and the Heavens too; and they shall appear before Allah, the one the conqueror

This verse provides further evidence that the Universe will end in singularity and that a Second Big Bang would create a new Universe with a new Earth and new Heavens (skies, stars, planets). How this Universe will differ from our current Universe is not clear. However, the Quran promise that it will be ever lasting.

The reader might now ask, why have we explored the end of the Universe as described in the Quran when it cannot be accurately compared to its scientific counterpart? The answer is that by examining the descriptions of the Second Big Bang, we have identified more proof of the Quran's knowledge of the original "bang" discussed in Chapter 2. Verses that indicate the heat of the Universe after the "bang", the subsequent scattering of stars and planets, and the creation of a new Earth and Universe add more evidence to the claim that the Quran described The Big Bang in detail. In addition, its description of the Universe's end is remarkably similar to that of a Big Crunch, a prominent scientific theory.

By looking at the fate of our Universe, we took a little detour. Let us now go back to time after creation. After The Big Bang had occurred and the Universe finally became transparent, what happened then? How did stars form? How did our own Earth form? What does the Quran detail about these phases?

### **Primary Sources**

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## **Photo and Figure Sources**

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- Figure 3.1 Credit: Wikipedia
- Figure 3.2 Credit: Howstuffworks
- Figure 3.3 Credit: The Huffington Post, "New Poll Reveals Many Americans Express Doubt Over Global Warming, Evolution, Big Bang", 04/21/2014

#### **Editors**

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