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Samā' and *Samāwāt* in the Qur'an: A Thematic Study and Its Relevance to the Science of the Creation of the Sky

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Abstract

The difference in the mention of "heaven" in the Qur'an, sometimes as singular (*samā'*) and sometimes plural (*samāwāt*), raises questions because they both have the same meaning, "heaven", without any obvious difference. A contemporary approach proposes that *samā'* refers to the context of a verse that is global, while *samāwāt* refers to a more detailed context. This study aims to find differences in the use of the two terms in verses that discuss the creation of the sky, with the aim of understanding the meaning of "generality" and "detail" in the creation of the sky. This research uses a literature method by referring to classical and contemporary interpretations, without involving field studies. The results show that when the Qur'an mentions the chronology and duration of the creation of the heavens, the term *samāwāt* is used, while for general depictions, the term *samā'* is used more frequently, although sometimes *samāwāt* is also used. The purpose of this research is not only to uncover the implicit meaning in the Qur'an, but also to show the magic of language and science in the text. Thus, this research aims to bridge the gap between religious understanding and modern science, especially in the context of the creation of the sky.

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Keywords: Al-Qur'an; *samā'*; *samāwāt*

Introduction

The sky is simply an entity that sits above humans and is a component of the formation of the universe other than the earth, planets and stars. In the Qur'an, the universe is described as 'the sky, the earth, and in between'^[1]. The verses that mention this sentence actually have a uniqueness of its own that cannot be denied. The uniqueness lies in the difference in the term 'sky' used, sometimes the word sky is spoken in a singular form; *samā'* but is more often spoken with plural pronunciation; *samawāt*. According to the translated Qur'an circulating in Indonesia, both *samā'* and *samawāt* are still interpreted as 'sky' without any difference.

Nadiyah Thayyarah stated that this difference contains the signal of humans who can only see one sky on it, unlike the earth which is always used in a single term where humans can see the seven layers of the earth that they step on^[2]. Al-Alūsī explained in his commentary that the sky is spoken as singular and plural in the Qur'an with the aim of covering everything in all layers of the sky and can be benefited by humans directly such as the air, the light of the stars and so on, while the benefits of the earth can mostly be used by humans through the first layer only. Al-Alūsī also quotes Ibn Ḥayyān as saying that the word 'heaven' is mentioned singularly and plurally and 'earth' is not due to the plural form of the earth which is difficult to pronounce^[3]. Meanwhile, Faḍil as-Sāmarrā'i, a contemporary tafsir scholar who has studied many verses of the Qur'an, explained that the difference

¹The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and Science, (Jakarta: Ministry of Religion of the Republic of Indonesia, 2012), p. xxiii

² Nadiyah Thayyarah, The Smart Book of Science in the Qur'an, (Jakarta: Zaman, 2013) p. 468

³ al-Alūsī, Rūḥul Ma'anī fī Tafsir al-Qur'an al-Azīm wa as-Sab'u Maṣānī, (Beirut: Dār al-Kutub al-'Ilmiyyah, 1914), jil. 1, hal. 329.

between the two terms lies in their meaning, *samā'* means all that is above humans, while *samāwāt* means the seven-tiered sky⁴

The words as-Sāmarrā'i are in line with the opinion expressed by ar-Rāzi that *samāwāt* is used in verses that refer to numbers and *samā'* is used in verses that refer to 'above man'.⁵ The same thing was also expressed by Ibn 'Ashūr, that the term *samā'* is used in the verse if its meaning is a blue sky that humans are able to see as a roof that shades them.⁶ al-Baiḍāwī also asserts that indeed the term sky is a vocabulary that indicates a type; it can refer to the singular or plural, so there is no significant difference in meaning.⁷

The scholars of interpretation do not seem to contradict in their interpretation of the definitions of *samā'* and *samāwāt*, the interpretation between classical and contemporary scholars of interpretation refers to the same meaning. But further, as-Sāmarrā'i says that there is a different sense of language between verses that use the term *samā'* and verses that use the term *samāwāt*. According to him, verses that use the term *samā'* image 'generality' while verses that use the term *samāwāt* image 'detail and emphasis'.

As-Sāmarrā'i strengthens his opinion by bringing verses with the theme of 'the knowledge of Allah that encompasses' as an example, on the theme in Q.S Al-Anbiya [21]: 4, then in Q.S Al-Furqan [25]: 6. The theme of the previous two verses is the same, namely Allah *ta'ālā* is All-Knowing of all things that man speaks. However, in verses that use *the term samā'*, Allah chooses the word *qoul* (words) whose image is more common, because the sentence of the word includes words orally, in writing and in the heart. Meanwhile, in the second verse which uses the term *samāwāt*, Allah chooses the word *sirr* (secret) whose image is more detailed and pressing than the word *qoul*.

The opinion of as-Sāmarrā'i seems interesting to apply to other themes such as creation, because the verses about creation in the Qur'an that mention the terms *samā'* and *samāwāt* are enshrined in at least 50 different places that are complementary to each other; no complete verse or surah really explains clearly and structurally about the creation of the heavens. This will be useful to reveal a particular purpose that Allah *subhānahu wa ta'ālā* implicitly uses in the use of the phrase.

After a brief study of some of the verses that deal with the creation of the heavens, the author finds that the term *samā'* is used when Allah *subhānahu wa ta'ālā* gives a 'general' description of the creation of the heavens. Meanwhile, the term *samāwāt* is raised by Allah in verses that 'affirm' the chronology of creation.⁸ This can be seen in the verse with the pronunciation of '*samāwāt*' in Q.S al-A'raf [7]: 54. also in Q.S Yūnūs [10]: 3.

The two verses both use the term *samāwāt* and both talk about the time span aka the chronology of the creation of the

heavens. Furthermore, for the pronunciation of *samā'*, we can take an example in Q.S Adz-Dzariyat [51]: 47, as well as in other verses found in Q.S Fushshilat [41]: 11. The above two verses are two verses that use the term *samā'*, and both give a general description of the creation of the heavens rather than the details of the chronology of its creation. The two points; The term *samā'* and the general description of the creation of the heavens, along with the term *samāwāt* and the chronology of creation, are the hypotheses that the author wants to prove its validity in this study

Looking at the creation of the sky, modern science today also has its own theory that is able to logically and clearly explain how the universe was formed based on long empirical observations and the collection of strong and supporting evidence.⁹ The Big Bang theory is one of the theories that has been accepted for decades about how the universe was originally created. According to this theory, the beginning of the universe was a unit, namely a single matter that was so dense and hot that it made it critical and then exploded, exploding in the sense of expanding massively until it transformed into a plume of smoke. The plume of smoke produces the accumulation of matter and energy that surrounds the gravitational vortex, through the results of the accumulation that makes smoke a variety of celestial bodies, even the development of the universe's matter has not stopped or has been detected to stop until now.¹⁰

Although it is stated as a modern scientific discovery that has only been discovered since the 19th century, in fact it is not a new topic in the Qur'an. The main point of the Big Bang theory shows that the creation of the universe began from a single point, such an explanation of the beginning of its creation has been mentioned in the Qur'an 1400 years earlier as stated in Q.S Al-Anbiya [21]: 30, as well as the discovery that the beginning of the creation of the heavens began from smoke, Q.S Fushshilat [41]: 11, as well as the discovery that the universe is constantly expanding has also been mentioned in Q.S Adz-Dzariyat [51]: 47:

Since it was first revealed more than fourteen centuries ago, the Qur'an has only been referred to as the holy book of Muslims, not a scientific book. However, the facts on the ground show that the Qur'an contains many scientifically charged cues that can only be understood by humans thanks to the advancement of science today.¹¹ The creation of the universe is one of them, the Qur'an, which was revealed to a prophet who was born from an illiterate environment, even he himself was illiterate, has become obsolete discussing the details of the creation of the universe implicitly. These verses have been chanted tragically for 1400 years by the people and only a few of them want to know their meaning, even the more tragic reality is the rise of human disbelief when they can explain everything around them scientifically by assuming that the universe was systematically created

⁴ Interaktif Dr. Faḍil as-Samarrā: mal farqu baina "jannatun 'arḍuhās samawāt" wa "jannatun 'arḍuhā ka arḍis sam"
<https://www.youtube.com/watch?v=jX3qneVyGM4>

⁵ Jalāluddīn as-Suyūṭī, al-itkon fī ulūmil kur'an, (mesir: al-hai'ah al-miẓbiyyah al-ūĀmmah lil kitāb, 1974) jil. 2 plows. 355

⁶ Ibnu 'Asyūr, at-Tahrīr wa at-Tanwīr, (Tunisia: ad-Dār at-Tunisiyah lin Nasyr, 1984), hal. 231.

⁷ al-Baiḍāwī, Anwar at-Tanzil wa Asrar at-Ta'wil, (Beirut: Dār Ihya' at-Turās al-A'rabiyy, 1992), cet. 1, hal. The 55th Infantry Regiment was

⁸ Further will be discussed in the following chapters.

⁹ To be more precise, because there are many theories that have been triggered and none have been established as definite laws, even though it is the Big Bang Theory which is very famous and is believed to be the most

accurate assumption in explaining the formation of the universe, it turns out that there are still scientists who criticize the theory from the past until now. See Eric J. Lerner, The Big Bang Never Happened-A Startling Refutation of the Dominant Theory of the Origin of the Universe (New York: Vintage Books, 1991), p. 11.

¹⁰ Ailsa Harvey, Charles Q. Choi, "Our Expanding Universe: Age, History & Other Facts," SPACE (website), 15 Maret 2022, <https://www.space.com/52-the-expanding-universe-from-the-big-bang-to-today.html>.

¹¹ There are 1300 verses or one-sixth of the Qur'an that are scientifically charged. See Muhammad Rātib an-Nābulsi, Mausū'ah al-I'jāz al-Ilmi fil Qur'an was Sunnah, (Syria: Dār al-Maktaby, 2005) cet. 2, vol. 1, p. 5.

without the intervention of God.¹²

In the holy book of Muslims, as the author listed at the beginning, there are at least 50 verses that touch on creation, relevant to modern scientific discoveries and even contain answers to things that have crossed people's minds related to the creation of the universe. The harmony between scientific discoveries and the verses of creation itself is the purpose of the miracle of the Qur'an as mentioned in Q.S Fuṣṣilat^[41]: 53. This harmony is the next background that underlies this research, namely to find out the relevance of the verses of the creation of the sky in the Qur'an with science along with the discussion of the miracle side of the Qur'an. Departing from such a background, the research entitled "*Samā' and Samāwāt* in the Qur'an (Thematic Study of Terms and Their Relevance to Science)" was adopted by the author with the aim of proving whether or not there is a compatibility between the term *samā'* used in the Qur'an in giving a general description of the creation of the sky and the description of the sky as the discovery of science and the term *samāwāt* which is used by the Qur'an in explaining the chronology of the creation of the sky with the chronology of the creation of the sky in the modern version of science which is a form of miracle of the Qur'an in the field of language and science at the same time.

Research Methods

The author uses a thematic research model, which focuses on the interpretation of one particular theme from various topics in the Qur'an. The result of this model is that a researcher must have the ability and readiness to collect verses with similar themes scattered across several places in the Qur'an.¹³ The data collection process used by the author in compiling this study uses literature research techniques; data collection techniques that involve examining books, literature, notes and various reports related to the problem to be solved.¹⁴ To analyze this study, the author uses a descriptive analysis technique.

Theoretical Framework

This theory is based on the *balaghoh* form of the Qur'an which sometimes speaks one thing in a singular form and sometimes in the plural, such as in the pronoun of God which is sometimes spoken as a single 'I' as in Q.S Al-Baqarah^[2]: 186, and sometimes in a plural language which means 'We' as stated in Q.S Al-Hijr^[15]: 9.

This mention does not mean that the number of God is more than one, apart from the fact that Arabs usually use the phrase *jama'* with the meaning of *mufrod* or vice versa to refer to a single meaning, but also as a form of emphasis on the majesty of God under the pretext that sometimes people who have an honorable position also convey the pronoun 'I' as 'we'.¹⁵

Scholars also agree differently in interpreting the term 'wind'

in the Qur'an, if 'wind' singly (*rīḥ*) then it means wind that brings punishment as stated in Q.S Az-Zāriyāt [51]: 41-42. While 'wind' in the plural pronunciation (*riyāḥ*), means the wind that brings mercy as mentioned in Q.S Al-Hijr^[15]: 22. The Qur'an on other occasions always speaks of something in its singular form such as 'earth' which is always called *arḍ*, and sometimes it always mentions something in a plural form such as 'glass' which is always called *akwāb*. In this case, the term 'heaven' falls into the first group, namely the classification of words that Allah sometimes calls singular and plural. Manna' al-Qaṭṭān says that there is a special sign that distinguishes the two, namely the term *samāwāt* is used when the Qur'an refers to the pronunciation of 'sky' which depicts quantity and majesty as in Q.S al-Ḥadīd^[57]: 1.

Whereas if what is imaged is 'what is above man', then the Qur'an uses the term *samā'* as can be found in Q.S al-Mulk^[67]: 16:¹⁶

In this research corridor, the term *samā'* and *samāwāt* have their own meaning in their pronunciation, adhering to the opinion of al-Qaṭṭān, *samāwāt* refers more to the image of the quantity of the sky, such as the expressions 'the seven heavens,' 'the heavens and the earth were created in six days,' and 'the heavens were created in two days,' while the use of the term *samā'* in the Qur'an refers to all the meanings of the sky that do not represent quantity.

Discussion

1. The Creation of the Universe in Six Days

It has been agreed by scholars that the 'day' in question does not mean the count that we generally know as six days in times 24 hours, because such a count of days only appeared after the heavens and earth were created. The number of days in this verse refers to the number of days in the sight of Allah whose day is like a thousand days in the world as stated in Q.S as-Sajdah^[32]: 5:¹⁷

Physicist-student Achmad Marconi quoted Achmad Baiquni's opinion in his book which said that "It is more appropriate if the word *yaum* is translated as a stage or period and period."¹⁸ Jamaruddin also quoted the opinion of Fazlur Rahman who stated that '... this "six-day" process refers to the existence of God in the appointment of a gradual process beyond the dimension of space and time...'¹⁹

The period in the evolution of the universe, when understood through the results of observations and studies of the proof of the existence of the primordial microwave remnants of the universe through the COBE project announced in April 1992, is that the first period of the creation of the universe began with the statement that Allah Ta'ālā wanted to create the universe, which is indicated by the sentence *kun* as a vibration emission that causes violent shocks until it reaches the point of temperature where the gravitational force separates itself as a stand-alone force. The special point of gravity is called

¹² According to research by the Pew Research Center in 2009, at least 4 out of 10 scientists who are members of the American Association for the Development of Science do not believe in the existence of God. <https://www.pewresearch.org/religion/2009/11/05/scientists-and-belief/#:~:text=Finally%2C%20the%20poll%20of%20scientists,of%20Americans%20share%20this%20view.> It has even become a trend among scientists to release their thoughts on the opposite of science as the antithesis of faith such as Faith vs Fact by American biologists; Jerry A. Coyne, The God Delusion by prominent evolutionary biologist Richard Dawkins and The End of Faith by neuroscientist Sam Harris.

¹³ Abdul Mustaqim, Research Methods of the Qur'an and Tafsir, (IDEA Press, Yogyakarta, 2022), cet. VIII, p. 51 reviews

¹⁴ Moh. Nazir, Research Methods, (Ghalia Indonesia, Bogor, 2013) p. 93.

¹⁵ Fāliḥ ad-Dūsarī, at-Tuḥfah al-Mahdiyyah Syarḥ al-Aqīdah at-Tadmuriyyah. (KSA: Muṭābi' al-Jāmi'ah al-Islāmiyyah bil Madīnah al-Munawwarah, 1993) jil. 1, cet. 3, hal. 222.

¹⁶ Mana' al-Qaṭṭān, Mabāḥiṣ fī 'alumul qar'in, (riyad: Maktaba al-maa'il al-ma'id, alarif lane Nasir Watt Tazi', 2000) set. 4, present. 205.

¹⁷ at-Ṭabari, Jimmy'al bayan in t'will ail kar'in (2001), Jil. 10, present. 245. &

Ibnu 'Asyūr, at-Tahrīr wa at-Tanwīr, jil.8b , hal. 162.

¹⁸ Achmad Marconi, How the Universe Was Created, (Jakarta: Dunia Pustaka Jaya, 2003), p. 166.

¹⁹ Ade Jamaruddin, "The Concept of the Universe According to the Qur'an," Ushuluddin XVI Journal, no. 2 (July 2010): p. 136.

the Planck temperature, $T=1032$ K with the estimated age of the universe reaching 10^{-43} seconds after $t=0$

The second stage begins when the temperature begins to drop, the universe undergoes an inflationary process in which the strong core force separates itself from the weak core force and the electromagnetic force and the universe contains a large number of light-weight π -mesons that interact very strongly with each other. The state of the universe at that time was still in form and content like a 'cosmos soup' that could not be identified, because light and matter were still blending in the form of collisions between particles and light radiation and intensive. The description of such a state of blending between light and matter is stated by Allah in the Qur'an in Q.S Hūd^[11]: 7

The third phase begins when the density of the material is only 20 kg/l and the temperature is decreasing. This stage is called the *Big-Bang Nucleo-Syntheses stage by experts of nuclear physics and high-energy physics*; the stage in which the building blocks for the formation of the universe's filling matter are produced by the fusion process of ready-to-use elementary particles.

The fourth phase began after that until the temperature dropped further and the matter stretched further until 700,000 years later

Since the fourth stage is completed, the physical universe continues to cool and expand until the temperature reaches a state that allows stable atoms to form and free electrons to bond into stable atoms, there is a separation of matter from radiation and the universe becomes translucent and the matter of the universe begins to group under the influence of gravity as well as the influence of gravity between matter.

After the universe is translucent and all electrons are bound in atoms, then the nebulae cluster and form stars and galaxies.²⁰

The creation of the universe in these six periods in another verse we will find in more detail in Q.S Fussilat^[41]:12 that the heavens themselves were created in two periods

This period is said by Zaghoul El-Naggar as; the period of formation of light elements immediately after the great explosion of the universe and the second is the formation of heavy elements coupled with new quantities of light elements.²¹ Meanwhile, the Indonesian Ministry of Religion Team simplified the interpretation of the two periods by; the period of creation of the first sky and the period of its refinement into seven heavens.²²

The interpretation of the details of the creation of the heavens as described above only appeared in the modern era in the hands of scientific scholars, such as El-Naggar. Marconi, who is a scientist, also translated the six times referred to by the Qur'an with the six times that he has known in cosmology. In contrast to the scholars of salaf and *khalaf* tafsir who do not interpret the meaning of Allah's words in such detail, but only explain as necessary. The scientific interpretation of the creation of the sky as stated by El-Naggar and Marconi is not new in the world of interpretation, considering that scholars have long stated that in the Qur'an there are miracles or miracles in terms of scientific cues.²³ In addition, the tendency of mufasir-scientists in interpreting the verses of the

Qur'an with a scientific approach has given birth to the style of Tafsir 'Ilmi which has been first applied by as-Suyūfī, ar-Rāzī and al-Ġazali in their tafsir books.

The interpretation of El-Naggar and Marconi above does not go out of the three conditions that have been set by the mufasirs in allowing interpretation using the scientific method, namely; does not contradict the interpretation of salaf scholars, does not contradict the textual text, does not contradict the rules of the Arabic language²⁴

Therefore, the scientific interpretation of the creation of the sky as above is not classified as an excessive interpretation but is still included in the category of scientific interpretation that is allowed.

2. The Universe Was Once Unified

In Q.S al-Anbiyā'^[21]:30 it is explained that the creation of the universe was initially a cohesive entity before being separated into different entities.

The thayyarah of this verse is a clear hint of the Big Bang Theory, the phrase used in this verse is *ratq*, which means 'gathering' and 'accumulating', is a careful description of the state of nature that existed before the Big Bang in the form of the first matter (*Big Bang*); for *fatq* it means explosion, dispersion and separation. This primitive post-early matter universe exploded in the sense of expanding massively.²⁵

El-Naggar gives a lengthy explanation of the interpretation of this verse in his book:

In 1948, each of George Gamow and his friend Ralef Alfer proposed that the concentration of elements in the radar captured cosmos showed that the first planet, the ancestor of the universe, was subjected to pressures and hot temperatures that were difficult for the human mind to explain. In the explosion, the heat from the explosion moved into the smoke plume of the universe. This provides an opportunity for double nuclear interactions that lead to the formation of precursors such as hydrogen and helium.

In the same year, Alfred and Hearman said that primitive planets in the universe had thermal radiation similar to dark matter radiation and that the value of this radiation decreased as the universe expanded and cooled. However, some of them still remained in the sky. If it can be studied and recorded, the radiation remnants are the strongest evidence that the universe began to form with the Big Bang.

In 1964, two experienced scientists and researchers, by chance, Arno Panziyas and Robert Wilson discovered the thermal remnants of cosmic rays in the form of puzzling radio noise that regularly arrived at antennas directed anywhere facing the sky.

In 1989, NASA launched a space satellite to gather information about the universe's thermal radiation and find radiation from the remnants of a large explosion. This discovery provides a logical interpretation of why the sound of regular noise echoes throughout the universe and reaches us from different sides of the cosmos—echoes from a massive explosion.

With their discovery, Panziyas and Wilson were awarded the Nobel Prize in 1978 and this discovery reinforces that the Big Bang theory 'almost' happened and even reached the status of

²⁰ Achmad Marconi, How the Universe Was Created, p. 164-194.

²¹ Zaghoul El-Naggar, Selected from the Tafsir of the Verses of the Cosmos in the Qur'an Al-Karim, (Jakarta: Shourouk International Bookshop, 2010) vol. 1, p. 22.

²² The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and SaiAchmans, p. 6.

²³ Ma'had al-Imām asy-Syātībī, al-Muyassar physics Ulūmil Qur'an, hal. 123-126.

²⁴ Ibrahim al-Humaik❖i, Manāhijul Mufasssīrīn, Hal. 136i

²⁵ Nadiyah Thayyarah, The Smart Book of Science in the Qur'an, p. 335.

an almost 'certain' fact.²⁶

From El-Naggar's explanation above, it can be concluded that the Big-Bang theory is an almost factual theory about the initial process of the creation of the universe. This is based on the *wireless* noise picked up by radio antennas when entering a state of 'searching for signals' that causes 'crackling' noise or anthill screens in televisions which are proven to be the remnants of the Big Bang plasma explosion 400,000 years ago which today take the form of long microwave photons that fill the spaces in the universe.²⁷ The Big Bang theory itself is a theory that states that the universe used to be a cohesive unit before exploding and becoming a universe composed of various celestial bodies.

According to Ali Mahfuz and Sri Rianti, this discovery is certainly one of the miracles of the Qur'an in the scientific field which is proof that the Qur'an has become a pioneer that surpasses science and provides a solid foundation for the Big Bang theory as a fact because of the instructions in the Qur'an.²⁸ This scientific miracle is also a testament to God's absolute power and unparalleled majesty, as it is known that normally an explosion will leave debris and debris, while the explosion of the universe causes the formation of the heavens, the earth and debris as well as fragments in the form of planets and stars.

3. The Sky Starts from Smoke

In Q.S Fuṣṣilat [41]: 11, Allah Ta'ālā explains that the initial phase of the creation of the heavens was in the form of 'smoke' using *the term samā*. A substance composed mostly of gases and solid particles, some dark in color and partly hot, which is similar to the smoke²⁹ mentioned in the Qur'an is called a nebula, according to science. Namely interstellar clouds.³⁰ Nebulae contain stellar embryos called protostars or prospective stars, aka all celestial bodies that are diverse today were originally nebulae, nebulae today still exist and are still giving birth to new stars.

Nebulae were originally the result of the Big Bang explosion and were the initial components of the formation of celestial bodies, when all the celestial bodies formed one by one, the remaining clouds then filled the space between the celestial bodies,³¹ which is why nebulae are defined as 'interstellar clouds' because of their substance that resembles white smoke and is more appropriate to be likened to clouds and their current status that fills the gap between stars.

The interpretation of 'smoke' in the Qur'an with this nebula is not only in line with and does not contradict the textual verses and Arabic, nor does it contradict the interpretation of the salaf scholars. So this interpretation is acceptable and does not include an exaggerated attitude in interpreting the Qur'an through a scientific approach.

4. Seven Heavens

The nature of the seven heavens mentioned in the Qur'an

causes different interpretations among scholars, at-Ṭabari reveals it as the seven paths,³² while Ibn 'Ashūr interprets it as the seven planets.³³ Meanwhile, another expression in the Qur'an regarding the seven heavens is 'seven layers' as mentioned in Q.S al-Mulk [67]: 3, also in Q.S Nūh [71]: 15, then in Q.S an-Nabā' [78]: 12 Allah states that the nature of the seven heavens is to have a strong building.

The meaning of 'seven layers' differs from era to era according to human understanding of the universe. According to ancient Greece belief, the universe consisted of various layers of the sky and the earth functioned as a center (geocentric), until it reached the Copernican era in the 16th century with its heliocentric model which states Mercury, Venus, Earth, Mars, Jupiter, and Saturn surrounded by the sun.

Efforts to understand the 'seven heavens' are now increasingly developing in the context of the concept of layers and dimensions. The seven solid heavens can be interpreted as layers of the atmosphere that are close to the earth, namely; Troposphere, Tropopause, Stratosphere, Stratosphere, Mesosphere, Mesosphere and Thermosphere. This classification is based on the temperature of the layers of the atmosphere and their distance from the earth's surface, and their solidity can be interpreted as their sturdiness in enveloping the earth's sphere.³⁴

In Q.S al-Mulk [67]: 3 and Q.S Nūh [71]: 15, the sentence *ṭibāqa* can be interpreted as 'layered' or 'multi-layered.' This expression is not only interpreted to mean that the seven heavens are layered, it can also be interpreted that the celestial bodies are at different distances, so that they can be called multi-tiered. Some are close together and some are far away.³⁵ This kind of meaning is in line with the interpretation expressed by at-Ṭabari when interpreting the 'seven heavens' which is sometimes spoken in the Qur'an as 'seven paths' by explaining that one of the habits of the Arab people in expressing all that is above one another is the expression 'path'.³⁶

5. The Sky Expanded

Q.S az-Ḍarīyat [51]: 47 states that the heavens are expanded. Thayyarah explained that the form of the word 'expand' in the verse uses the form *isim fa'il* with the meaning of *maṣdar* which depicts 'continuous expansion, from the time it was created until a later time when Allah wills to stop'.³⁷

Scientists claim that since its creation, the universe has continued to evolve. The universe expanded very rapidly until 400,000 years after it was first created; After that, the development was rather slow but still accelerated.³⁸ But then it was discovered that the universe is expanding faster than scientists thought.³⁹ Astronomers believe that the universe is expanding based on the results of their analysis of the changing spectrum of elements in distant galaxies.

Scientists liken the development of this universe to the

²⁶ Zaghloul El-Naggar, A Selection of Tafsir of the Verses of the Cosmos in the Qur'an Al-Karim, vol. 1, p. 226-227.

²⁷ Art Hobson, Tales of Quantum, (USA: Oxford University Press, 2016), hal. 22.

²⁸ Ali Mahfuz Munawar and Sri Rianti, "The Creation of the Universe According to Mufassirs and Astronomers," PROCEEDINGS OF THE ISLAMIC AND SCIENCE INTERCONNECTION INTEGRATION CONFERENCE 4 (2022).

²⁹ Nadiyah Thayyarah, The Smart Book of Science in the Qur'an, p. 336.

³⁰ The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and Science, p. 24.

³¹ Nadiyah Thayyarah, The Smart Book of Science in the Qur'an, p. 337.

³² at-Ṭabari, Jimmy'al bayan in t'will ail kar'in (2001), Jil. 17, present. 26.

³³ Ibnu 'Asyūr, at-Tahrīr wa at-Tanwīr, jil. 18, hal. 27.

³⁴ The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and Science, p. 52.

³⁵ The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and Science, p. 55.

³⁶ at-Ṭabari, Jimmy'al bayan in t'will ail kar'in (2001), Jil. 17, present. 26.

³⁷ Nadiyah Thayyarah, The Smart Book of Science in the Qur'an, p. 334.

³⁸ The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and Science, p. 25.

³⁹ Art Hobson, Tales of Quantum, hal.21.

development of raisin bread, where the distance between raisins gets farther and farther as time passes. In the same way, the expansion of the universe is making galaxies farther and farther away.⁴⁰ So it is true that Allah Ta'āla and His promise in the Qur'an that Allah Almighty will continue to expand the heavens until the time when He wants to stop.

6. Sky as a Roof

Sky is an expression that refers to everything above humans⁴¹ even though it does not shade it.⁴² Because of this sense, the term 'sky' can encompass a wide range of contexts, from the atmosphere that surrounds the earth to the most distant galaxies from the earth.⁴³ When the sky is described as a roof in three verses in the Qur'an (Q.S al-Baqarah^[2]: 22, Q.S Ġāfir^[40]: 64 and Q.S al-Anbiya'^[21]: 32) Allah uses the term 'building' twice to describe its sturdiness in shading, namely in Q.S al-Baqarah^[2]: 22, and Q.S Ġāfir^[40]: 64:

Nadiyah Thayyarah stated that the description is exactly as the discovery of modern science which reveals the fact that the sky is not empty as believed by previous scholars, but is determined by matter; both gaseous⁴⁴ and solid matter and light matter. All of these material compositions are arranged together to form a layer of sky that is so sturdy.⁴⁵

Each layer of the sky also has different functions and conditions. Each sky has a different purpose to support the interests of the beings below. For example, the sky closest to the earth is decorated with stars, while other layers of the sky exist that serve to strengthen the gravitational pull of the planets, ensuring that objects remain moving in their orbits, not moving or deviating, which may cause potentially dangerous collisions with each other.⁴⁶ Some scientists state that the Earth's atmosphere is actually a very real fortress of defense. It is not very dense but very thick, capable of filtering sunlight and burning meteors, protecting and nourishing our lives because it only passes useful things to the surface of the earth.⁴⁷

This shows the nature of the sky which acts as a roof, that is, it protects the earth and living beings on it from all harmful and harmful destructive elements as the interpretation expressed by Ibn 'Ashūr in at-Tahrīr wa at-Tanwīr.⁴⁸

7. The Sky Has Doors and Paths

Regarding the solidity of the material that makes up the sky as explained above, Thayyarah continued:

All of this makes us even more convinced that the sky, filled with matter and energy, is a solid structure that cannot be broken through except by opening its doors. Just as the sky has a solid door, the top level of the atmosphere that wraps around the globe also has a door. Therefore, in order for a spacecraft to survive from the Earth's gravitational region into free space, it must travel a certain path and angle if it wants to get out of the atmosphere. Otherwise, the plane will

explode.⁴⁹

NASA once published an article that included how a space shuttle will land after launch:

At 7.5 miles from the runway, the orbiter flew about 424 miles per hour at an altitude of 13,365 feet. About 2 miles from the runway, the orbiter flew at a speed of nearly 360 miles per hour at a 22-degree glide slope.

After being parallel to the runway as it approaches, the orbiter continues with a steep slope of 18 - 20 degrees. The commander leveled the angle of descent on the final slope of 1.5 degrees...

These certain degrees show that there are 'doors' and 'roads' that are not located at any point in the universe, but at certain points that must be passed in an orderly manner like vehicles on earth that can only travel on certain roads, so the 'doors' and 'roads' of space must also be passed in an orderly manner so that the space shuttle can go out and re-enter the earth as intended by Thayyarah.⁵⁰

Thayyarah also explains the interpretation of Q.S al-Hijr [15]: 14, that in the sentence *sukkirat absārūna* (our vision is blurred) there are several miracles, one of which is that since the universe is full of darkness (black matter and dark energy), it is reasonable that people who ascend to the heavens will say that they feel that their eyes are blind. Thayyarah also narrates in her book:

An astronomer visits one of the spacecraft launch centers in a developed country. The spacecraft is in constant communication with the launch center. At this point, the spacecraft has just been launched. Suddenly, a message about a newly launched plane arrives in the takeoff mailbox. The flight crew said: "We are completely blind, we can't see anything." In fact, the plane was launched under the scorching sun.⁵¹

This explains that when Allah ta'āla opens the door of heaven with which man can go to space or the higher layers of heaven, then all man will see at that time is darkness. Implicitly, this suggests that there is a "door" separating the brightly lit earth from the sun, and the sky made entirely of dark energy and dark matter.⁵² This interpretation is also not included in the exaggerated scientific interpretation, because in line with the discovery of science with textual verses without any perfunctory association without a definite basis, this interpretation is not only permissible but also acceptable as a valid interpretation.⁵³

8. The sky will be rolled up

Scientists argue that it would be impossible for nature to continue to develop incessantly. The expansion of the universe today occurred due to the first explosion in the universe that arose due to anti-gravitational energy, this energy is what has driven the explosion and expansion until now. This energy is at a point of weakening, and it is the

⁴⁰ The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and Science, p. 27.

⁴¹ Abū Manṣūr as-Sa'ālībī, Fiqhul Luḡah, (Beirut: Dār Ihyā' at-Turoṣ al-'Arabiyy, 2002), hal. On October 25, 2019,

⁴² Interaktif Dr. Faḍil as-Samarra: mal farqu baina "jannatun 'arḍuhās samawāt" wa "jannatun 'arḍuhā ka arḍis sam" <https://www.youtube.com/watch?v=jX3qneVyGM4>

⁴³ The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and Science, p. 55.

⁴⁴ Such as hydrogen, helium, oxygen, nitrogen, neon and water vapor.

⁴⁵ Nādiyāh Ṭayyārāh, Mausū'ah al-y'jāz al-qar'āniyy fi at-Ṭibbi wa al-phalki, (U: Maktaba Is-Ṣafā', 2009), Jal. 2, present. 29

⁴⁶ The Indonesian Ministry of Religion Team, The Creation of the Universe in the Perspective of the Qur'an and Science, p. 8.

⁴⁷ Nadiyah Thayyarah, The Smart Book of Science in the Qur'an, p. 357.

⁴⁸ Ibnu 'Asyūr, at-Tahrīr wa at-Tanwīr, jil. 1, hal. 331.

⁴⁹ Nadiyah Thayyarah, The Smart Book of Science in the Qur'an, p. 349.

⁵⁰ NASA, "The Aeronautics of the Space Shuttle," nasa.gov (website), 29 Desember 2003, https://www.nasa.gov/audience/forstudents/9-12/features/F_Aeronautics_of_Space_Shuttle.html

⁵¹ Nadiyah Thayyarah, The Smart Book of Science in the Qur'an, p. 349.

⁵² 99% of the constituents of the universe are all sorts of black matter. Literary. J. M. Overduin & P. S. Wesson, Dark Sky, Dark Matter, (London: Institute of Physics Publishing, 2003), p. 67.

⁵³ Ibrahim al-Humaik, Manāhijul Mufasssīrīn, Hal. 136i

energy of gravity that plays a role in reuniting the universe into one celestial body, just as the first celestial body at creation, as Allah ta'ālā aptly said in Q.S al-Anbiyā' [21]: 104.

El-Naggar said that the meaning of this verse is that Allah ta'ālā will roll up the entire universe and all its contents such as matter, energy, time and space will become the second primitive object after the first primitive object is the singular point that exploded and become the universe today, later the second primitive object will also explode and turn into the universe again like the first primitive object. The earth will be replaced by another earth and the heavens will be replaced by another heaven as He said in Q.S Ibrāhīm [14]: 48:

In this way, the afterlife that has different terms and rules from the rules and rules of this world begins, namely eternal life without death.⁵⁴

Conclusion

'Heaven' in the Qur'an is divided into two types; singular (samā') and plural (samāwāt). The difference in the use of the term, although both are interpreted as 'sky' without any difference, has a certain image and purpose in its use. Samā' depicts a global context while samāwāt depicts detail. Samā' in the Qur'an is widely interpreted as all that overshadows humans, sometimes also referring to the entire universe, while samāwāt is specifically interpreted as the seven heavens.

In addition, both samā' and samāwāt are used to describe the general conditions of the sky; However, when it comes to quantity, such as the number of seven heavens, the discussion of the time span of the creation of the universe is six days and two of which are the time of the creation of the heavens, the Qur'an specifically uses the term samāwāt.

The Qur'an's explanation of the creation of the heavens by exposing it through only a few verses, 14 centuries after that found a bright spot. Modern era technology that is able to image microwaves, advanced telescopes to space shuttle missions has become a medium that is not unfamiliar to humans to find scientific answers to everything, one of which is the matter of creation. Science offers many theories about the beginning of the creation of the universe and finally which are widely compatible with the Qur'an. The miracle of the Qur'an can be seen in the Big Bang Theory, the Big Crunch, as well as in the micro-imaging of the composition of the sky which is very dense and resembles a sturdy building and a roof for the earth. The relevance of the Qur'an to the science of the creation of the sky is one of the forms of miracles of the Qur'an which are signs of the greatness and power of Allah for the sensible person.

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⁵⁴ Zaghoul El-Naggar, A Selection of Tafsir Verses of the Cosmos in the Qur'an Al-Karim, (, vol. 1, p. 252.

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