The Theory of Expanding Universe in Zaglul an-Najjār Exegesis (Ian G. Barbour's Perspective)

THESIS

Proposed to meet the requirements
to get a bachelor degree (s1) faculty of ushuluddin and humanities
department of al-Qur'an and interpretation

By :

Mochammad Yusuf Alif Chabibi
NIM: 1904026026

STUDY PROGRAM OF AL-QUR'AN SCIENCE AND INTERPRETATION OF USHULUDDIN FACULTY AND HUMANIORA
STATE ISLAMIC UNIVERSITY OF WALISONGO SEMARANG

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2023

DECLARATION

Bismillāhirrahmānirrahīm

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Thesis Title	: **The Theory of Expanding Universe in Zaglul an-Najjār Exegesis (Ian G. Barbour's Perspective)**

With full honesty and responsibility, the author declares that this thesis does not contain material written by other people or published. Likewise, this thesis does not contain other people's thoughts, except for the information contained in the reference which is used as a reference.

Semarang, 14 June ,2023

Declarator

M. Yusuf Alif Chabibi
NIM. 1904026026

ADVISOR APPOVAL

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Submitted by:

Mochammad Yusuf Alif Chabibi

NIM: 1904026026

Semarang, 14 June, 2023

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RATIFICATION

Thesis by Mochammad Yusuf Alif Chabibi, NIM: 1904026026, has been passed by the Board of Thesis Examiners of the Faculty of Ushuluddin and Humanities, Walisongo State Islamic University Semarang, on the date: Monday, 26th June 2023 And accepted and passed as one of the requirements to obtain a Bachelor's degree in Ushuluddin and Humanities.

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Dear,

The honorable the Dean of Theology and Humanities of Walisongo State Islamic University

In Semarang

Assalamu'alaikum Wr. Wb.

After reading, making corrections as appropriate, then I declare that your thesis:

Name	: Mochammad Yusuf Alif Chabibi
Student ID Number	: 1904026026
Major	: Al-Qur'an Science and Interpretation
Thesis Title	: **The Theory of Expanding Universe in Zaglul an-Najjār Exegesis (Ian G. Barbour's Perspective)**

We hereby agree and request that it be tested immediately, Thus, thank you for your attention .

Wassalamu'alaikum Wr. Wb.

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MOTTO

هَلْ اَتٰى عَلَى الْاِنْسَانِ حِيْنٌ مِّنَ الدَّهْرِ لَمْ يَكُنْ شَيْـًٔا مَّذْكُوْرًا

Has there (not) come upon man a period of time when he was not a thing (even) mentioned ? (al-Insān verse 1)

وَلِلّٰهِ مُلْكُ السَّمٰوٰتِ وَا لْاَ رْضِ ؕ وَا للّٰهُ عَلٰى كُلِّ شَيْءٍ قَدِيْرٌ (١٨٩) اِنَّ فِيْ خَلْقِ السَّمٰوٰتِ وَا لْاَ رْضِ وَا خْتِلَا فِ الَّيْلِ وَا لنَّهَا رِ لَاٰ يٰتٍ لِّاُولِى الْاَ لْبَا بِ (١٩٠) الَّذِيْنَ يَذْكُرُوْنَ اللّٰهَ قِيَا مًا وَّقُعُوْدًا وَّعَلٰى جُنُوْبِهِمْ وَيَتَفَكَّرُوْنَ فِيْ خَلْقِ السَّمٰوٰتِ وَا لْاَ رْضِ ۚ رَبَّنَا مَا خَلَقْتَ هٰذَا بَا طِلًا ۚ سُبْحٰنَكَ فَقِنَا عَذَا بَ النَّا رِ(١٩١)

"*And to Allah belongs the dominion of the heavens and the earth, and Allah is over all things competent (189) Indeed, in the creation of the heavens and the earth and the alternation of the night and the day are signs for those of understanding (190) Who remember Allah while standing or sitting or (lying) on their sides and give thought to the creation of the heavens and the earth, (saying), "Our Lord, You did not create this aimlessly; exalted are You (above such a thing); then protect us from the punishment of the Fire.(191)*" (Āli 'Imrān verse 189-191*)*

سَنُرِيْهِمْ اٰيٰتِنَا فِى الْاٰ فَا قِ وَفِيْٓ اَنْفُسِهِمْ حَتّٰى يَتَبَيَّنَ لَهُمْ اَنَّهُ الْحَقُّ ؕ
اَوَلَمْ يَكْفِ بِرَبِّكَ اَنَّه عَلٰى كُلِّ شَيْءٍ شَهِيْدٌ

"*We will show them Our signs in the horizons and within themselves until it becomes clear to them that it is the truth. But is it not sufficient concerning your Lord that He is, over all things, a Witness?*" (Fuṣṣilat verse 53)

DEDICATION

Praise be to Allah who has shown us to this religion. And we would not have guidance if Allah had not guided us (a fragment of al-A'rāf verse 43)

First and foremost, I dedicate this thesis to Allah SWT. The God of the Universe, who has created every smallest thing like a quarks to the size of the universe, gives us favors and everything from beginning before we existed until whenever He wants. Which gives us mind and heart to know and understand Him. All praise be to Allah with praise full of sky and the Earth for allowing and predestining me to able to arrange this thesis

Secondly, I dedicate it to Rasulullah SAW, the noblest & best human being of all time because for him, we all can know The Super Good Essence who has created the universe and everything in it through the Qur'ān and everything related to Prophet SAW (Hadiś) and because from him, the hardness of our heart and the emptiness of our minds can be cured

Thirdly, this thesis dedicated to my parents who have educated, cared for, taught and financed me from childhood until now. Of course I can't reply to his services at any time

And the fourth, this dedicated to whoever they are (no exception) people who teach knowledge, especially knowledge that related to Allah, like scholars of alim 'allamah, teachers, clerics, ustādz, ḥabibs also lecturer and people whose lives have intention and aim only for Allah as well as those whose lives are to advance for glory or sacrifice to this religion

Even though it seems that this thesis is only an invalidation of the final college assignment or to achieve a bachelor's degree. But behind that, to be honest, I also wrotet this with a sense of sincerity & love for knowledge, especially theology-religion, science, philosophy and psychology. Even though it seems a little & less meaningfull, hopefully this little one contains a lot of benefits. Āmīn…

TRANSLITERATION

The transliteration of Arabic words used in writing this thesis is guided by the "Arab-Latin Transliteration Guidelines" based on the Joint Decree of the Minister of Religion and the Minister of Education and Culture of the Republic of Indonesia number: 158/1987 and number 0543b/U/1987. Dated January 22, 1988, as follows:

1. Consonant Words

Arabic consonant phonemes which in the Arabic writing system are denoted by letters, in this transliteration some are represented by letters and some are represented by signs and some by letters and signs at the same time.

Arabic font	Name	Latin word	Information
ا	Alif	Not symbolized	Not symbolized
ب	Ba’	B	Be
ت	Tā’	T	Te
ث	Śa’	Ś	es (with dot above)
ج	Jim	J	Je
ح	Ha’	Ḥ	ha (with dot below)
خ	Kha’	Kh	ka and ha
د	Dal	D	De
ذ	Żal	aŻ	zet (with dot above)
ر	Ra	R	Er
ز	Zai	Z	Zet
س	Sin	S	Es
ش	Syin	Sy	es dan ye

ص	Śad	ṣ	es (with dot below)
ض	Dad	ḍ	de (with dot below)
ط	Ṭa	ṭ	te (with dot below)
ظ	Ẓả’	ẓ	zet (with dot below)
ع	‘Ain	‘	Inverted comma on top
غ	Gain	G	Ge
ف	Fa’	F	Ef
ق	Qaf	Q	Qi
ك	Kaf	K	Ka
ل	Lām	L	El
م	Mim	M	Em
ن	Nun	N	En
و	Waw	W	W
ه	Ha’	H	Ha
ء	Hamzah	´	Apostrof
ى	Ya’	Y	Ye

2. Vowel

Arabic vowels are divided into two, namely single vowel and double vowels. The statement is as follows:

a. Single vowel

Is a single Arabic vowel marked with a symbol in the form of a sign or vowel, the transliteration of which is as follows: Arabic vowels like Indonesian vowels, consist of a single vowel or monoftong and multiple vowels or diphthongs.

Arabic font	Name	Latin word	information

--َ--	Fathah	A	A
--ِ--	Kasrah	I	I
--ُ--	Dhammah	U	U

b. Double Vowel

Arabic double vowels whose symbols are a combination of vowels and letters, transliteration in the form of a combination of letters, namely:

Arabic font	Name	Latin Word	Information
--َ—ي	Fathah and ya’	Ai	a-i
--َ—و	Fathah and wau	Au	a-i

Example :

كَتَبَ kataba بَيْنَكُمْ bainakum

فَعَلَ fa’ala قَوْلَ qaula

كَيْفَ kaifa

3. Maddah

Maddah or long vowels whose symbols are vowels and letters, transliteration in the form of letters and signs, namely:

Arabic font	Name	Latin Word	Information
ا	Fathah and alif	Ā	A and line above
ي	Fathah and ya	Ā	A and line above
ي	Kasrah and ya’	Ī	I and line above
و	Dhammah and wau	Ū	U and line above

Example :

جَاهِلِيَّة Jāhiliyyah

تَنسَى tansā

كَرِيْم karīm

فُرُوْض furūd

4. Ta'marbutah

There are two transliterations for ta marbutah:

a. Ta marbutah li

Ta marbutah who live or get harakat fathah, kasrah and dhammah, the transliteration is /t/

b. Ta marbutah dies:

Ta marbutah who dies or gets sukun, the transliteration is /h/

c. If the last word with ta marbutah is followed by a word that uses the article al and the reading of the two words is separate, then ta marbutah is transliterated with ha (h)

Example :

رَوْضَةُ الاَطْفَال - raudah al-aṭfāl

رَوْضَةُ الاَطْفَال - raudatul aṭfāl

5. Syaddah

Syaddah or tasydid which in the Arabic writing system is symbolized by a sign, shaddah sign or tasudid sign, in this transliteration the shaddah sign is denoted by a letter, which is the same letter as the letter marked with the shaddah.

Example :

رَبانَ rabbanā

نَزَلَ	nazzala
البَر	al-birru

6. Article

Articles in the Arabic writing system are denoted by letters, but in this transliteration, articles are distinguished by articles followed by the letter syamsiyah and the word sandnag followed by the letter qamariah.

a. The article is followed by the letter syamsiyah The article followed by the letter syamsiyah is transliterated according to its sound, namely the letter /i/ is replaced with the same letter as the letter that immediately follows the article.

السَمَاء	as-Samā’
الشَمس	asy-Syamsu

b. Articles followed by the letter qamariah

Articles followed by the letter qamariah are transliterated according to the rules outlined in front and according to their sound. Whether followed by the letter syamsiyah or the letter qomariah, the article is written separately from the word that follows and is connected to the article.

الْقُرْأَنُ	al-Qur’ān
القِيَاس	al-Qiyās

7. Hamzah

It is stated in advance that hamzah is transliterated with an apostrophe, but that only applies to hamzah which is located in the middle and at the end of the word. If the hamzah is located at the beginning of the word, it is not symbolized, because in Arabic it is an alif.

Example:

تَأ خُذُونَ	ta’khużūna
اَكَلَ	akala
النَوْءُ	an-nau’

8. Word writing

Basically every word, whether fi'il, isim, maupyn harf, is written separately, only certain words written in Arabic letters are usually combined with other words because there are letters or vowels that are omitted, so in this transliteration the writing of these words is also arranged in other words following it.

وان لله لهو خير الرازقين	wa innallāha lahuwa khai arrāziqīn
و لله على الناس حج البيت	walillāhi ‘alan nāsi ḥijju al-baiti

9. Capital letters

Although in the Arabic writing system capital letters are not recognized, in this transliteration they are used as well. The use of capital letters is like what is done in EYD, including: capital letters are used to write the first letters of self-names and the beginning of sentences. If the personal name is preceded by an article, then what is written in capital letters remains the initial letter of the personal name, not the initial letter of the article.

Example:

وما محمد الا رسول	wa mā Muḥammadun illā rasūl
الحمد لله رب العالمين	alhamdu lillāhi rabbi al-ālamīn

The use of capital letters for Allah only applies if the Arabic script is a complete and if the writing is combined with other words, so that letters or vowels are omitted, capital letters are not used.

Example:

لله الامر جميعا	lillāhi al-amru jamī’an

والله بكل شيء عليم wallāhu bikulli syai’in ‘alīm

10. Tajweed

For those who want fluency in reading, this transliteration guide is an integral part of the Science of Tajweed. Therefore, the inauguration of the Latin Arabic transliteration guidelines (international version) needs to be accompanied by recitation guidelines.

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Bismillāhirrahmānirrahīm, all praise be to Allah SWT with praise as wide as the heavens and the Earth and something after it that he wills, who has given me the time and opportunity to complete this thesis as one of the requirements for graduation and achieve a bachelor's degree in al-Qur'ān science and Interpretation major (IAT). Blessings and greetings are always bestowed upon the Prophet Muḥammad SAW, the most noble human being because of him, we can all know and be on the path of this truth, Islām and Qur'ān as guidelines. I wanna give my honor and appreciation to everyone who has supported and appreciation me in the course of my academic during at Walisongo State Islamic University. Thank you to:

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5. Prof. Dr. Zaglul an-Najjār who have made a major contribution in the field of interpretation of the Qur'ān, especially modern scientific interpretation based on research conducted by scientists and Ian G. Barbour who has helped the author in placing the relationship between religion and science in accordance
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TABLE OF CONTENT

ABSTRACT

This research departs by looking at the development of modern science in the current era which seems increasingly sophisticated and complex. With the technology as a result of human creation and creativity, it can facilitate work and problems in all areas of life, including in the field of science. Along with the sophistication and advancement of the world of science with the help of this technology, the Islamic world is also feeling its impact, especially in the field of natural verses interpretation (*kauniyyah* verses). Among the natural phenomena that scholars and scientists have long debated is the expanding universe theory, namely the theory that the universe is experiencing expanding, (not constant). Zaglul an-Najjār as one of the contemporary mufassir in the field of science said that since 1400 years ago, the Qur'ān in his *kauniyyah* verses explained nature and its contents, phenomena and evidence of modern scientific discoveries. This shows the miracles of the Qur'ān in the present era so that people understand the truth of the Qur'ān. In his commentary book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*" he discusses the topic of this expanding universe theory in particular in one of his studies namely sūrah aż-Żāriyāt verse 47. The results of the study stated that the Qur'ān not contradict with the latest modern scientific research which is the result of human effort. The word *lamūsi'ūn* in the fragment of verse 47 indicates the expansion is still happening, continuing until now. In line with the findings of scientists that universe expands from a very small point starting from the Big Bang.

By looking at this reality, it can be understood whether the fields of religion and science complement each other or do they contradict each other? Then how exactly is the relationship between religion and science, especially in Zaglul an-Najjār interpretation of this theory? In this regard, this research takes the perspective of Ian G. Barbour as a contemporary scientist who examines the issue of the relationship between religion and science. His typology that he compiled in the field of relations between religion and science is very well known and has been widely used by theologians, scientists and scholars as well as academics in connecting between them. So the focus of this study discusses two topical issues, namely the how the method that Zaglul an-Najjār used in interpreting the expanding universe theory based and how his interpretation if seen from Ian G. Barbour's perspective. By using the descriptive analysis method it can be seen after conducting research, that interpretation source that he used is research by scientists and by looking at the development of modern science. His interpretation type is tafsīr bir-ra'yi, his interpretation method is *tahlilī* and *maudū'i* and use *'ilmī* style. Then it's known that by looking through the perspective of Ian G. Barbour, his interpretation can be classified into integration typologies, especially natural theology and systematic synthesis.

Keyword: Qur'ān, Science, Interpretation

CHAPTER 1
INTODUCTION

A. Background

The universe inhabited by humans and various other living things has a charm of amazing beauty that cannot only be written down in words, the order on all sides and the complexity of the arrangement in every detail in it makes every human being never satisfied to continue exploring in all directions in Earth and space. Without exception, every phenomenon and odd thing that happens in the universe is proof that these events are beyond human control and will and knowledge, thus conveying the meaning that there is "something" that has unlimited power that creates and controls that thing.

These phenomena seem to imply humans to find out more deeply, explore and seek what meaning or wisdom and practical benefits can be used as knowledge as well as lessons behind the incident.

In relation to that, as a Muslim who believes in the truth of God existence, it will certainly be easy for him to understand that all these phenomena are essentially none other than the power and will of God alone, Allah SWT (although in human science there is a causal process). So with that he will believe more and increase his faith in whatever Allah has given him through his religious teachings, meaning that he has no doubts about the truth of Islam. Namely the Qur'ān as a guide for life teachings, the book of instructions given to His messenger, Rasulullah Muḥammad SAW. With this, he will understand and know more that whatever Allah conveys (through the Qur'ān) and what the Messenger conveys (through his ḥadiś), everything is true and contains wisdom.

So from there, a Muslim can increase his faith and love for this religion by studying various phenomena and signs of his power in the

universe that He shows in the Qur'ān through his *kauniyyah* verses. By using reason as reasoning and understanding with the heart, you will be able to realize that everything created by Allah can ultimately be used as a means to know Him and by paying attention to everything that He creates will lead to the understanding that Allah has unlimited power, and that all nothing He creates is in vain (Āli 'Imrān verse 191). The purpose of its creation is also true (ad-Dukhān verse 39), namely to worship Him (až-Żāriyāt verse 56) and not to play games (al-Anbiyā' verse 16). So every Muslim will eventually conclude that all of this is intended for the benefit and goodness of man himself in serving Him.

"If the universe which is very vast and magnificent is so beautiful and enchanting, then what about His creator?"

There have been many Qur'ān verses that instruct humans to see, hear and think about the events of the creation of the universe and the living things in it with questioning expressions as if Allah insinuated humans to think about the events of the creation of the universe such as اَفَلَا تَعْقِلُوْنَ (don't you understand ?), أَفَلَا يَنْظُرُونَ (then do they not pay attention ?), اَفَلَا تَتَفَكَّرُوْنَ (don't you think about(it) ? اَفَلَا تَذَكَّرُوْنَ (Why don't you take lessons ?), اَفَلَا تُبْصِرُوْنَ (Don't you see ?), these expressions are used in the Qur'ān 'an to inspire people to be aware of the truth of His words so that they will truly believe in and love the Qur'ān.

But apart from that, there is an undeniable problem that some Muslims who have strong faith and love for their religion often fixate on the textual meaning of the verses of the Qur'ān by making it a 'justification' that the discoveries of modern science and the theory of scientists has been explained in the Qur'ān long ago. Even though logically it's not easy like that because the verses of the Qur'ān only

clearly explain a phenomenon or event that occurs in the universe. As for the details of explanation and the actual intention desired by the verse, only Allah SWT knows.

However, the scholars as *warōsatul anbiyā'* have set basic limits regarding the extent to which scientific phenomena and theories as well as scientific evidence can be used as supporting factors in interpreting the *kauniyyah* verses of the Qur'ān so that the *kauniyyah* verses are not interpreted arbitrarily connected with the latest modern scientific phenomena whose impression is only limited to logic. Because after all, the true intention is only Allah who knows.

The rules in scientific interpretation are not to go outside the boundaries of interpretation which results in contradiction with the agreed scientific theory, it must be in accordance with the meaning of the arrangement of the Qur'ān, adhere to linguistic meanings, not violate Islamic law, maintain the arrangement between verses, not impose verses so that they are in accordance with scientific theories and vice versa, in accordance with the scholars's explanations (no unnecessary additions or omissions), establishing scientific theories derived from the signs of the Qur'ān and making the contents of verses about nature as the basis for the surrounding meaning that surrounds it in the explanations and interpretations carried out by scholars[1]

So with this limitation, it can be seen that the *kauniyyah* verses can be interpreted with a modern scientific approach as long as they do not violate the rules set by the scholars. So here, the role of the Qur'ān in the field of science is very important to prove that the Qur'ān is really not the composition of Muḥammad SAW, each of its *kauniyyah* verses contains various pure scientific cues from God the Creator of the Universe. As quoted by Quraish Shihab from Abdullah Darras, "The

[1] Andi Rosadisastra, *Metode Tafsir Ayat-Ayat Sains dan Sosial*, (Jakarta: Amzah, 2007), p. 9-10

verses of the Qur'ān are like diamonds, each corner emits a different light than what is emitted from other angles. And it's not impossible if we let other people look at it from other angles, then they will see a lot more than what we see." [2]

Natural phenomena and signs have made scientists also scholars debate about the origin of the universe, was it created (from something) or created by itself from nothingness ? Then is this universe directly created or through stages ? This debate takes a lot of time, effort and money to find a definite answer. The problem regarding universe existence and his creation process can be found in the discourse of the expanding universe theory which was coined at the beginning of the 19th century. This theory states that the universe inhabited by humans and other creatures is not constant or static, but is expanding which is still happening until now until the time is not known with certainty.

Previously, scientists still believed that the universe was constant but in the first three decades of the 20th century, they changed their view after observing the movement of galaxies away from our galaxy (Milky Way) and from other galaxies at high speeds, namely speeds approaching light through binoculars stars.

This can be known through observations made by Doppler when it found that the source of light coming from stars in a number of galaxies that are far from the observer (humans on Earth) turns away indicating that the observed galaxy is moving away from humans and each other. So the distance from each other confirms that the universe is expanding

Zaglul an-Najjār as a contemporary scholar figure as well as a geologist and modern science expert from Egypt commented about that theory by stating that it had long been explained in the Qur'ān. In his

[2] Syafrudin, *Paradigma Tafsir Tekstual & Kontekstual Usaha Memaknai Kembali Pesan Al-Qur'an* (Yogyakarta: Pustaka Pelajar, 2009), p. 29

interpretation book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*" he specifically discusses this theory in one of the sub-chapters of the surah aż-Żāriyāt verse 47:

وَ السَّمَآءَ بَنَيْنٰهَا بِاَ يْدٍ وَّاِنَّا لَمُوْسِعُوْنَ

Meaning:

"And the sky We built with power (Our) and verily We are indeed powerful (expand it)"

With his intelligence in the field of science and his ability in the field of interpretation of the Qur'ān, he carries out efforts to interpret the verse with the help of the latest modern scientific findings based on the results of research by scientists who have been tested for years.

Seeing from the reality of the interpretation carried out by Zaglul an-Najjār, so what is the actual position of science in religion ? and religion in science? Can one of them be used as a base to strengthen the other ? To answer that, this research takes the perspective of a contemporary figure who studies the issue of the relationship between religion and science namely Ian G. Barbour. His thoughts are considered to have made a major contribution to the contemporary fields of science and religion which he mapped into four typologies. By using his perspective, it will be known how the placement of religion and science is carried out by Zaglul an-Najjār in the expanding universe theory based on the surah aż-żariyat verse 47.

Moving on from that, the author is interested in knowing how Zaglul an-Najjār interpretation of the Expanding Universe theory in Surah Aż-Żāriyāt verse 47 is based on his book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*". In this research, the author tries to find out how the method that Zaglul used in interpreting that theory based on that verse which is then seen using perspective of Ian G. Barbour to get placements between religious and science

B. Research Question

Based on the background explained above, that the main problem to be discussed in this research is the interpretation of Zaglul an-Najjār regarding the theory of the expanding universe in his commentary and analyzing it using the perspective of Ian G. Barbour. Then the research focus will be formulated into two main problems, namely:

1. How is the method that Zaglul an-Najjār used in interpreting the theory of expanding universe based on his book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*" ?
2. How is Zaglul an-Najjār interpretation regarding the theory of expanding universe if seen from Ian G. Barbour's perspective ?

C. Research Aims

Based on what has been described above that the objectives of a research are:

1. To find out how the method that used by Zaglul an-Najjār in interpreting the expanding universe theory based on his book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*"
2. To find out how Zaglul an-Najjār interpretation of the expanding universe theory if seen from Ian G. Barbour's perspective

D. Literature Review

Literature review is conducting a thorough and thorough study of previously published papers with respect to the title raised or having relevance to the research to be carried out. This aims to find out plagiarism, which works are plagiarized and which are original works (personally made) so that it can be seen that the researcher is an honest person [3] and the results of his research can be accounted for.

[3] Syafrudin, *Paradigma Tafsir Tekstual…*", p. 121

Tracing various literature such as theses and books that are relevant there is no research that is specifically the same and comprehensive about research on the expanding universe theory in the interpretation of Zaglul an-Najjār from the perspective of Ian G. Barbour.

As for previous research that alludes to and is still related to the author's research and can be used as a reference in the preparation of this research including:

The thesis entitled "*Penafsiran Zaghlul al-Najjar tentang Black Hole dalam QS. at-Takwir ayat 15-16 (Kajian Atas Kitab Tafsir al-Ayat al-Kauniyah fi al-Qur'an al-Karim)*" compiled by Dwi Indah Sari (1404026066) Faculty of Ushuluddin and Humanities (IAT) UIN Walisongo Semarang in 2019 This thesis explains one of the scientific phenomena in the Qur'an, namely the Black Hole. The results of this study discuss linguistic aspects, namely "*al-Khunnas, al-Jawāri, dan al-Kunnas*" which mean hidden and sweeping. The truth of the Koran is in accordance with the facts of modern science that scientists have discovered long after the revelation of the Qur'ān that the Black Hole is an invisible star characterized by its high density and strong gravity where matter and all forms of energy, even light, cannot escape. from him. The similarity with this research is that the main reference is using the book of interpretation Zaglul an-Najjār "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*" which specifically also discusses natural phenomena in outer space.

In the thesis entitled *"Makna Bumi sebagai Hamparan dalam Al-Qur'an (Analisis Term Firasy, Madda, Bisāt, Mihād, Daḥa, Suṭiḥat, dan Tāhā Pendekatan Sains"* compiled by Nafisatun Nuri, students from UIN Walisongo Semarang on 2019 also have something in common the interpretation model with research is using modern scientific evidence to reveal the miracles of the Qur'ān, especially in terms of its linguistics. And the similarity in the source of interpretation is using Zaglul an-Najjār

through his book, while the difference is that the discussion does not extend to the process of creating the universe or outer space but only limited to planet Earth, namely the terms of Earth as expanses in the Qur'ān

The book entitled "*Miracle of the Qur'ān: Keajaiban Al-Qur'ān Mengungkap Penemuan-Penemuan Ilmiah Modern*" by Caner Taslaman. This book is a religion-based science philosophy book which is a translation of "*The Qur'ān: Unchallengeable Miracle*." The beginning of the chapter in the book entitled "The Universe Continues to Expand" explains the expanding universe theory by quoting the letter aż-Żāriyāt verse 47 using the support of modern scientific facts whose findings prove that based on Hubble research (by demonstrating its findings with the Doppler effect) it can be known that the galaxies are moving away from each other by looking through a wavelength spectrum that shifts towards red, it means that the galaxy is moving away from the observer (humans on Earth). The relevance of this research is directly discussing the subject of discussion, namely the expanding universe theory in Sūrah aż-Żāriyāt verse 47 but not using the interpretation approach of Zaglul an-Najjār and Ian G. Barbour's perspective.

In the book entitled *"Kosmologi Islam: Menyingkap Rahasia Penciptaan"* written by Maman Supriatman, precisely in the chronology of the creation of nature, that is the result of a mutual agreement between scientists around the world, based on the results of research, observations, experiments and several tests, stating that the universe expands, starting from a very small point with almost 0 volume. So with research that there are the same results, namely in terms of mathematical calculations of modern science that after the Big Bang there was an expansion of the universe, the same as explained in the interpretation of Zaglul an-Najjār but this research not using Ian G. Barbour's perspective .

The book entitled "*Buku Pintar Sains dalam Al-Qur'an*" written

by Nadiah Thayyarah is a translation of "*Mausū'ah al-I'jāzul-Qur'ani*." In one of its sub-chapters "The Expansion of Universe" it is explained about the expanding universe theory that the word mashdar in the word *lamūsiū'n* (actually expanding it) in the sūrah aż-Żāriyāt verse 47 shows the continuous expansion of the universe since it was created until now until the time God wills. The focus of the research explains that if the events of nature's creation are replayed, it will be found that all matter originally came from one object that was very dense and hot and then exploded. This is evidence that supports the big bang theory as the theory underlying the expanding universe. This research has the same discussion that discusses the theory of expanding universe by examining the content of the meaning of Surah aż-Żāriyāt verse 47 but does not use the interpretation of Zaglul an-Najjār and Ian G. Barbour's perspective

Based on these previous studies and other studies that are not included, it's known that there has been no researchs that specifically and comprehensively discusses this theory in the interpretation of Zaglul an-Najjār based on his book "*Tafsīr al-Āyāt al-Kauniyyah fī al-Qur'ān al-Karīm*" using the perspective of Ian G. Barbour.

E. Research methods

This research is using library research, namely research in which all data comes from written materials in the form like books, documents, photos, journal, thesis, also photos, and other. To facilitate and clarify the direction of this research, the following methodological steps will be applied:

1) Data source

Sources of library data used in this study can be divided into two, namely primary data and secondary data:

First: the primary data source used is the book "*Tafsīr al-Āyāt al-*

Kauniyah fī al-Qur'ān al-Karīm" by Zaglul an-Najjār

Second: secondary data sources are books, thesis, articles or journals, also photos and youtube videos and other reading sources that support and are still related to the issues discussed which support this research to be more precise and accurate.

2) Data collection technique

The data collection technique used by the researcher is by using the main reference to the book of interpretation by Zaglul an-Najjār, namely "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*" by taking one of the discussions from that part of the book, to be precise in volume 3 in the sūrah aż-Żāriyāt verse 47 and from the translation of the book the book is called "*Selekta dari Tafsir Ayat-Ayat Kosmos*." Then look for secondary sources as references and supporters of this research, namely books taken from library collections, journals, articles, youtube videos related to the discussion, theses in physical form and from online which are taken through browsing via the internet, photos are also included for further information. actualize research visually.

3) Data analysis

The data analysis method used by the researcher is that after obtaining these data, the next steps are processed using descriptive analysis methods which aim to provide information and present a clear picture systematically, objectively, critically, and analytically regarding the theory of the expanding universe in the interpretation of Zaglul an-Najjār in his book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*." After that, the results of the discussion were analyzed through the perspective of Ian G. Barbour.

F. Writing systematic

Writing systematics is part of the thesis that contains a complete

description of the thesis structure and the important elements in each chapter. Thus, a systematic writing is needed to briefly describe the content or important points of each chapter and the relationship between one chapter and another so that it becomes a unified whole. Each chapter contains sub-chapters that explain in more depth the subject of the discussion so that beautiful, systematically arranged work and comprehensive understanding can be created.

BAB I is chapter that contains an introduction that leads to the next chapters. It contains the background of the problem which explains the reason for selecting the title and a global thesis description of the problem to be discussed. Then the author includes the formulation of the problem and objectives which are the subject of discussion in this study. In the next section, the author mentions a literature review in the form of previous studies that are relevant to the research to be discussed, then there is a research method that contains data sources, data collection techniques and data analysis used by the author as well as a writing systematic which contains the important points in each chapter

BAB II This chapter is a theoretical foundation that contains scientific interpretation or understanding of *tafsīr al-Āyāt al-Kauniyah* (*tafsīr 'ilmī*), method of interpretation, theory of expanding universe and Ian G. Barbour's also his typology

BAB III This chapter discusses Zaglul an-Najjār (biography, journey of life and career, his works) and his interpretation book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*." Then continued Zaglul an-Najjār interpretation of the expanding universe theory in Sūrah aż-Żāriyāt verse 47

BAB IV is a chapter that describes the analysis obtained through the explanation of the data contained in chapter III and conformity with the theoretical basis in chapter II. This chapter describes the method that

Zaghlul an-Najjar used in interpreting expanding universe theory and the analysis about his interpretation if seen from Ian G. Barbour perspective.

BAB V is closing chapter which contains the final results of the discussion in the form of conclusions from the research that has been presented and suggestions that support the improvement of subsequent theses.

CHAPTER II
THEORETICAl FRAMEWORK

A. *Tafsīr al-Āyāt al-Kauniyah* (*Tafsīr 'Ilmi*)

1. Definition of *tafsīr 'ilmy*

In its history, the activity of interpretation itself has actually appeared since the time of the Prophet Muḥammad SAW was still alive but has not yet become a separate scientific discipline. Interpretation activities at that time already existed because there were many companions who still did not understand the meaning of the verses that were revealed.

Every time the Prophet Muḥammad SAW received a verse from the Qur'ān, he immediately conveyed it to his companions and interpreted what needed to be interpreted. His interpretation of the verses is sometimes with other verses of the Qur'ān, sometimes with as-Sunnah, either it's *sunnah qauliyyah*, *fi`liyyah* or *taqririyyah*.[1] So when the revelation came down then the Prophet conveyed it to his companions, at that time the companions asked the meaning of the verses that were not clear because not all verses were revealed clearly. There are *muḥkamāt* verses (have a clear meaning) and there are *mutasyābihāt* verses (which are not yet clear) so that it's necessary to explain the Prophet as the first interpreter as well as the sole authority for interpreting the Qur'ān at that time.

Ḥusain aż-Żahabi in the book *Tafsīr Wa al-Mufassirūn* divides the periods of interpretation of the Qur'ān into 3 periods, namely the interpretation of the Qur'ān during the time of the Prophet Muḥammad SAW, tabi'in (mutaakhirīn) and interpretation of the Qur'ān during the

[1] Amri, *Tafsir Al-Qur'an pada Masa Nabi Muhammad SAW Hingga Masa Kini*, in Journal Shautut Tarbiyah, Vol. 20, No. 1, (2014), p. 24

codification or new period (*at-Tafsīr Fil 'Ushur at-Tadwin*)[2]

Then after the Prophet period, the development of interpretation was continued by companions who received instructions from the Prophet SAW based on the Qur'ān, ḥadīś of the Prophet SAW, and *ijma'* which was carried out by companions when the explanation or verse interpretation not found in the Qur'ān and ḥadiś. Many companions are experts in interpreting the Qur'ān and among them there are 10 well-known namely Abu Bakr As-Shiddiq, Umar bin Khattāb, Uśman bin 'Affān, 'Ali bin Abi Tālib, Ibnu Mas'ud, 'Ibn 'Abbas, 'Ubay bin Ka'ab , Zaid bin Tsabit, Abu Musa al-'Asy'ary and 'Abdullāh bin Zubair. Among the caliphs whose interpretations were most widely accepted was 'Ali bin Abi Tālib and among the 10 friends of the commentators the most expert was 'Ibn 'Abbas who had been prayed for by the Prophet so that Allah would give him broad understanding in the Qur'ān[3]

The development of interpretation continued in the next period that is the tabi'in and tābi'ut-tābi'īn periods. The interpretations of the tabi'in were welcomed by the tābi'ut-tābi'īn. They collected the interpretations of past scholars and compiled their books, as had been done by Sufyan bin 'Uyainah, Waki' bin al-Jarrah, Syu'bah bin Hajjaj, Yazid bin Hārūn and 'Abdullah bin Humaid. It was they who became the pioneers of the way for Ibn Jarir aṭ -Tabarī who could be said to be the leaders of all commentators and the source of subsequent interpretations.[4]

After the aṭ-Tabarī era, only then did mufassir appear with various schools, types and different styles of interpretation[5] carried out by salafus-shālihīn scholars and contemporary scholars until now so that various

[2]Hamdan Hidayat, *Sejarah Perkembangan Tafsir Al-Qur'an*, in Al-Munir, Vol. 2, No. 1, (Juni 2020), h. 37

[3] TM. Hasbi ash-Shiddieqy, *Ilmu-Ilmu Al-Qur'an ('Ulum al-Qur'an)*, (Semarang: PT Pustaka Rizki Putra, 2009), h. 187-188

[4] TM. Hasbi ash-Shiddieqy, *Ilmu-Ilmu Al-Qur'an*…, p. 188

[5] TM. Hasbi ash-Shiddieqy, *Ilmu-Ilmu Al-Qur'an*…, p. 188

opinions were born which were pro and contra to a particular type of interpretation, because of differences in understanding, perspective and educational experience between one commentator and another.

The definition of interpretation itself has many kinds of understanding. The word "interpretation" originally meant "explanation" or "appearance of meaning". Aḥmad Ibnu Faris (d. 395 H), a linguist, explains in his book, *al-Maqayis fī al-Lugah*, that the word interpretation consists of 3 letters fa-sin-ra' which means "openness and clarity." From here, the word fasara (فَسَرَ) is similar to the word safara (سَفَرَ). It's just that the first means showing meaning that can be understood by reason, while the second, namely safara, means showing things that are material and sensory. So if you characterize a woman with sapphire, it means that she is showing the parts of her body that should be covered.[6]

The word "*tafsīr*" (التَّفْسِيْرُ) which is taken from the word *fasara* (فَسَرَ) implies "seriousness in opening" or repeatedly making efforts to open, so that it means sincerity and repeated efforts to open what is closed or explain what is abstruse or difficult from meaning of something, including vocabulary.[7]

In the Qur'an itself, the word "*tafsīr*" is mentioned in surah Qur'ān verse 33 which means "explanation and detail." And the word *tafsīr* (interpretation) is juxtaposed with the word *al-Haq* which means extract and absolute truth. According to the context of the verse, the word interpretation is an explanation or confirmation of everything that is odd or strange that is offered by people who deny the Prophet Muḥammad

[6] M. Quraish Shihab, *Kaidah Tafsir Syarat,Ketentuan, dan Aturan yang Patut Anda Ketahui dalam Memahami al-Qur'an*, (Tangeran: Lentera Hati, 2013), h. 8-9

[7] M. Quraish Shihab, *Kaidah Tafsir Syarat*…, p. 9

SAW as the carrier of the Qur'ān, namely infidels.[8]

Meanwhile in terminology, there are many opinions from various scholars:

According to az-Zarkasyī:

اَلتَّفْسِيْرُ عِلْمٌ يُفْهَمُ بِهِ كِتَابُ اللهِ الْمُنَزّلُ عَلىَ نَبِيِّهِ مُحَمَّدٍ صَلَّ اللهُ عَلَيْهِ وَسَلَّمَ وَ

بَيَانُ مَعَانِيْهِ وَاسْتِخْرَاجُ اَحْكَامِهِ وَحِكَمِهِ

"Interpretation is a knowledge with which knowledge can be understood by the Book of Allah which was revealed to His Prophet Muhammad SAW, explaining its intentions, issuing its laws and wisdoms"[9]

According to Al-Jurjānī:

اَلتَّفْسِيْرُ فِي الْاَصْلِ هُوَ الْكَشْفُ وَالْاِظْهاَرُ، وَفِي الشَّرْعِ تَوْضِيحُ مَعْنىَ الْآيَةِ

وَشَاءْنِهَا وَقِصَّتِهَا وَالسَّبَبِ الَّذِيْ نُزِلَتْ فِيْهِ بِلَفْظٍ يَدُلُّ دَلَالَةً ظَاهِرَةً

"Interpretation, originally, is: opening and explaining. The term syara' is: explaining the meaning of the verse, its circumstances, its story and the reasons for which the verse was revealed, with a pronunciation that shows it very clearly."[10]

The definition of the word *al-'ilm* and its various derivatives is often used in the Qur'ān in the general sense of knowledge, including the meaning of the natural sciences and humanity and includes knowledge that is revealed or obtained (acquired)[11]

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[8]Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 47

[9] Mashuri Sirojuddin Iqbal, A Fudlali, *Pengantar Ilmu Tafsir*, (Bandung: Angkasa, 2005), h. 86

[10] Mashuri Sirojuddin Iqbal, A Fudlali, *Pengantar Ilmu Tafsir*, p. 86

[11] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 47

The word "*sains*" itself comes from the English language that is *science*, and comes from the Latin *scientia* which means “to know”. Meanwhile, according to Lilina, the word *science* in English is translated as *al-'ilm* in Arabic. And in terms, *science* mean *knowledge*.[12]

According to The Liang Gie, the term science or knowledge in its full sense is a series of human activities with their minds and using various procedures so as to produce a set of regular knowledge about natural, social and individual phenomena for the purpose of achieving truth, understanding, application or explanation[13]

In a broader sense, science is defined as a product of the activity of the human mind which is produced by repeated experiments or observations to produce a theory that can be tested by other scientists so that they can explain natural phenomena or social phenomena. Science that can explain natural phenomena is called natural science while science that explains social phenomena is called social science.[14]

Further that in a broad sense, science can be distinguished as follows:

a. Social science, namely the science that discusses the relationship between humans as social beings

b. Natural sciences, namely those that discuss the universe and its contents which are divided into several independent branches of science:

    1. Physics, the field that studies changes in nature, especially

[12] *Fitri Meliani, Nanat Fatah Natsir, Erni Haryanti, Sumbangan Pemikiran Ian G. Barbour mengenai Relasi Sains dan Agama terhadap Islamisasi Sains,* in Jurnal Ilmiah Ilmu Pendidikan, Vol. 4, No. 7, (November 2021), p. 674

[13] Syarif Hidayatullah, *Agama dan Sains: Sebuah Kajian tentang Relasi dan Metodologis*, in Jurnal Filsafat, Vol. 29, No. 1, (Februari 2019), p. 105-106

[14] Lajnah Pentashihan Al-Qur’an, *Penciptaan Jagat Raya dalam Perspektif Al-Qur’an dan Sains*, (Jakarta: Widya Cahaya, 2015), p. xii

related to matter and energy. Everything on Earth is made of matter. Whatever happens involves some kind of energy - heat, electricity, sound and light which are types of energy

2. Chemistry is the science of the substances that make up nature and the basic properties of materials and the changes that these materials undergo. The Concise Dictionary of Science & Computers (2004) defines chemistry as a branch of natural science which is concerned with studies of the structure and composition of matter, changes that matter can undergo and other phenomena that accompany changes in matter.

3. Biologi, Biology is the science of living things (living organisms), plants and animals[15] and their habitats

c. Earth and space science, namely science that discusses the Earth as a member of the solar system and outer space with other celestial bodies. This knowledge includes:

1. Geology, discusses the structure of the Earth.

2. Astronomy, discussing space and objects

3. Geography, discusses the face of the Earth and economic products in relation to living things, especially humans.[16]

The field of science coverage is very broad, which branches into various other branches of science so that the word '*ilmi*' in the phrase "*ilmi* interpretation" means natural science and all other divisions or branches of science as explained above.

So the combination of these two words into "scientific

[15] Warsiman Subkan, *Sains dan Islam: Sebuah Simfoni Mengagungkan Rabb Semesta Alam*, (Malang: UB Press, 2015), p. 15

[16] Nafisatun Nuri, *Makna Bumi sebagai Hamparan dalam Al-Qur'ān (Analisis Term Firasy, Madda, Bisat, Mihad, Daha, Sutihat, dan Taha Pendekatan Sains*, Thesis 2019, p. 35

interpretation" can be taken to mean that scientific interpretation is an ijtihad or endeavor of a scholar in expressing the relationship between the kauniyah verses in the Qur'ān and the findings of modern science, which aims to show Qur'ān miracles. So in summary, scientific interpretation is an interpretation that interprets the verses of the Qur'ān based on a scientific approach or explores the content of the verses of the Qur'ān based on theories of modern science.[17]

Husain aż-Żahabi gives the understanding that scientific interpretation is:

التفسير الذي يحكم الإصطلاحات العلمية فى عبارات القرأن ويجتهد فى

استخرج مختلف العلوم والأراء الفلسفية منها

"Tafsīr that defines the term sciences in the narrative of the Qur'ān. Scientific interpretation seeks to explore the dimensions of knowledge contained in the Qur'ān and seeks to reveal various philosophical scientific opinions."[18]

Meanwhile, according to 'Abdul Mājid 'Abdus Salam Al-Mahrasi, it provides quite the same limitations on scientific interpretation, namely "interpretation whose mufassir tries to uncover parables in the Qur'ān, namely regarding several scientific views and terms and mobilizes all capabilities in exploring various scientific problems. and philosophical views.[19]

The interpretation of the *kauniyyah* verses or what is popularly called the scientific interpretation is a type of interpretation that is quite in demand especially in this modern era which cannot be separated from

[17] Rubini, *Tafsir 'Ilmi*, in Journal Komunikasi dan Pendidikan Islam, Vol. 5, No. 2 (Desember 2016), p. 92-93

[18] Asep Sulhadi, *Tafsir Ilmi, Sejarah dan Konsepsinya*, in Journal Samawat, Vol. 6, No. 1, 2022, p. 2

[19] Asep Sulhadi, *Tafsir Ilmi, Sejarah*…, p. 2-3

science and technology at any time. Especially for millennials who always want to know what the information and discoveries of modern science have been mentioned by the Qur'ān long ago, thus making them try to make an analogy and sometimes to match every natural phenomenon that occurs by connecting it to the Qur'ān. This of course creates a problem, namely for those who do not have adequate knowledge capacity related to the 'ulumul Qur'ān, especially in the field of exegesis, so that it will be very dangerous if ordinary people and people who do not have deep skills in that field try to understand the Qur'ān self-taught without a teacher even to teach it to others.

So this scientific interpretation has a very important role in addition to other types of interpretation, namely as an interpretation that specifically explains the *kauniyyah* verses in the Qur'ān through a certain methodology that has been carried out by scientific commentators who are known to be credible and have deep knowledge in in that field such as Tanthawi Jauhari, Quraish Shihab, Zaghlul an-Najjar, Fakhruddīn Ar-Rāzī, Ahmad Baiquni, and others.

The main reason that encourages interpreters of scientific interpretations to write their interpretations in this style is that besides the many verses of the Qur'ān, both explicitly and implicitly instructing people to seek knowledge, they also want to know the dimensions of the miracles of the Qur'ān in the field of modern science. And on the other hand, traditional interpreters of the verses of the Qur'ān may be less able to provide a satisfactory understanding of God's scientific messages and also unable to meet the needs of the times whose development is so rapid.[20]

Beside that, there is an assumption that the Qur'ān basically covers all sciences, both previous, present and later sciences so that in other words

[20] Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami Al-Qur'an Melalui Pendekatan Sains Modern*, (Jogjakarta: Menara Kudus Jogja, 2004). h. 127-128

that the holy Qur'ān has basically anticipated various modern sciences, *sabaq al-Qur'ān al-'ilm al-ḥadiś.*[21]

2. The development of scientific interpretation

The early days appeared in the first century of the Hijra where development had not yet begun, only limited to the first introduction of Islam to new culture and knowledge. That is when the opening of Islamic cities mixed with people of other religions who have different thought and cultural backgrounds such as the Greeks, Romans, Persians and others.[22]

In the third century hijriah, the development of science began to be seen with the emergence of books by Muslim scientists such as al-Qōnūn fi at-Tibb in the field of medicine by Ibn Sīnā (Avicenna in the Western world), the book Iḥṣa' al-'Ulūm by al-Farābī who known by the title al-mu'allim aś-śani (second teacher) after the Greek philosopher, Aristotle[23]

Then the history of the development of scientific interpretation, its initial period appeared since the 5th century Hijri which was inseparable from the role of the Abbasids who at that time were led by the caliph al-Ma'mun and the previous caliph was led by his father, Hārūn ar-Rasyīd and Islām was in its golden age (al-'aṣr aż-żahabi).[24] At that time there was a large-scale translation of scientific books and foreign books into the Islamic world, for example books on medicine, mathematics, philosophy and others into Arabic and began the period of bookkeeping of the religious and scientific sciences as well as their classification and systematics. The emergence of interpretations with a penchant for science was originally intended to try to find a correlation between statements in

[21] Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami*…, p. 130

[22] Udi Yuliarto, *Al-Tafsir Al-Ilmi Antara Pengakuan dan Penolakan*, in Khatulistiwa: Journal of Islamic Studies, Vol. 1, No. 1, (Maret 2011), p. 36

[23] Udi Yuliarto, *Al-Tafsir Al-Ilmi*…, p. 36-37

[24] Abdul Mustaqim, *Kontroversi tentang Corak Tafsir Ilmi*, in Jurnal Studi Ilmu-Ilmu Al-Qur'an dan Hadits, Vol. 7, No. 1, (Januari 2006), p. 26

the Qur'ān and scientific facts and scientific findings at that time.[25]

As recorded in history, Islamic civilization at that time was in its golden age, in contrast to the situation in Europe, which was experiencing its dark age. Extraordinary achievements have been achieved by a number of Muslim scientists who have made many contributions in the fields of science, mathematics, medicine and other sciences and have been recognized by many world historians. Among the famous Muslim scientists at that time were al-Kindī, al-Khawārizmī, Jabir bin Hayyan, al-Gazālī, ar-Rāzī, and many others so that Islam at that time was highly respected by Europeans and other nations. The heyday of science in the Islamic world occurred around 750-1100 AD.[26]

Then the tendency of scientific interpretation continues to develop along with the times, although sometimes it seems apologizing in the face of scientific progress in the West. This is due to the mufassirs who are actually busy looking for theological legitimacy that scientific theories that are now being discovered by Western scientists have existed in the Qur'an since fifteen centuries ago.[27]

The development of scientific interpretation took place over several periods, but the interpretation scholars divided it into three periods, namely:[28]

The first period, starting from the second to fifth hijri centuries, coincided with the translation of Greek books into Arabic. Among them were Muslim figures from this period, such as Ibn Sina, who tried to explore the suitability of some of the verses of the Qur'ān against the theories of Prolemeus.

The second period, starting from the sixth hijri century, namely

[25] Asep Sulhadi, *Tafsir Ilmi, Sejarah*…, p. 3
[26] Abdul Mustaqim, *Kontroversi tentang Corak*…, p. 26
[27] Abdul Mustaqim, *Kontroversi tentang Corak*…, p. 27
[28] Udi Yuliarto, *Al-Tafsir Al-Ilmi*…, p. 37

when Muslim scholars began to try to separate Greek science and philosophy from the teachings of the Qur'ān, among the pioneers of this movement was al-Gazālī.

Then the third period, starting from the eighteenth century AD. At this time many books were translated into European languages such as books on physics, chemistry and medicine. The development of this science actually led to a separation between religion and science in Europe at that time because the theories of Western scientists were always at odds with the Church's doctrines. As a result of this conflict, several scientists were eventually hanged, one of which was Nicolaus Copernicus. According to them, the Church's books only contain superstitions and absurd doctrines that keep them locked in ignorance

From this fact, it can be concluded that the background to the emergence of the pattern of scientific interpretation can be divided into two factors namely:[29]

First, the internal factors contained in the text of the Qur'ān where some of the verses strongly encourage humans to always carry out research and observation of the divine verses (universe). With this assumption, the verses of the Qur'ān which can be deduced to explore scientific theories, are interpreted by some scholars using a modern scientific approach, even though this was never done by the Prophet SAW and his companions. Those who support scientific interpretation argue that the interpretation of the Qur'ān does not know a stopping point, but continues to develop along with the times.

Second, the external factor, namely the development of the world of science and modern science, with the discovery of scientific theories, supporters of scientific interpretation will try to compromise between the Qur'ān and science and seek 'theological justification' for a scientific

[29] Udi Yuliarto, *Al-Tafsir Al-Ilmi*…, p. 28-29

theory. This is done to prove the truth of the Qur'ān (i'jāzul 'ilmi)[30] brought by the Prophet SAW scientifically-empirically, not only theologically-normatively.

3. The principle of scientic interpretation

The principle in this case mean the rules that must be considered when interpreting the kauniyah verses in the Qur'ān using a modern scientific approach, that is:[31]

a. Languange principle

This principle is an absolute requirement for those who want to understand the Qur'ān because the Qur'ān was revealed in Arabic so it is necessary to have in-depth knowledge of Arabic. So it is impossible for anyone to understand the Qur'ān let alone interpret it without wanting to learn Arabic and the sciences related to it such as i'rab, nahwu, shorof, balaghah, and various other supporting sciences.

Related to this principle, a scholar should always be guided and not violate the language rules that have been set out in the commentary books and language dictionaries. For example, when trying to understand a word, a scholar must research first what are the meanings or meanings contained in the word and then determine the most appropriate meaning after paying attention to all aspects related to the verse. In addition, the scholar must also pay attention to the development of the meaning of a word because when someone hears or utters a word, then what is pictured in the mind is a material form or something related to the material. However, from another point of view, this material form can change

[30] I'jaz is showing weakness, I'jaz is the inability to do something, the opposite of power or ability. If the i'jaz is proven, the power of the mu'jiz will appear. I'jaz meaning is "showing the truth of the Prophet in his statement as an Apostle by showing the weakness of the Arabs in challenging him against his eternal miracle, namely the Qur'an and the weaknesses of those who came after them." Nashruddin Baidan, *Wawasan Baru Ilmu Tafsir*, (Yogyakarta: Pustaka Pelajar, 2005), p. 118

[31] Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami*…, p. 58

according to the development of society and science.

b. Paying attention to verse correlation (*munāsabah al-Āyāt*)

The aspect of verse correlation or generally called munāsabah al-āyāt either before or after it is very important for interpreting the Qur'ān because one verse and another verse are interrelated so that if the scholar interprets without paying attention to this aspect it will give a misguided and misleading interpretation of meaning. This is because the arrangement of the verses of the Qur'ān is not based on the chronology of the revelation, but based on the correlation of the meaning of the verses, so that the content of the previous verses is always related to the content of the later verses. Bearing in mind that the Qur'ān which was revealed to the Prophet Muhammad SAW was not revealed all at once but gradually over 22 years, 2 months and 22 days so that the arrangement of the verses of the Al-Qur'ān was not determined by the ijtihad of the scholars, but was more tawfiqī, namely based on the instructions of the Prophet SAW through information received from the Angel Gabriel received from Allah SWT.

c. Based on established scientific facts

The Qur'ān acts as a holy book that has absolute truth that cannot be refuted by relative scientific theories. Therefore, a scholar who will interpret the Qur'ān should give meaning to the text of the Qur'ān with the facts or scientific facts that have been established and up to the standard of not changing the scientific statement and trying not to impose scientific theories in interpreting the Qur'ān. The scientific facts contained in the Qur'ān must be the basis and foundation, not the object of research because what must be the main guideline are the facts of the Qur'ān, not human science which is experimental in nature.

d. Thematic approach

The style of 'ilmi interpretation was originally part of the taḥlīlī or

analytic method which caused the discussion to be more partial and unable to present a complete understanding of a particular theme which in the end could not provide a conceptual understanding, but instead became confusing. For example, in the Qur'ān there are several terms which explain that humans come from the ground and on the other hand come from water (despicable semen). So if this is understood partially and independently by ordinary people who have no knowledge about it, then it will also be understood partially and incompletely so that it will cause different concepts in the Qur'ān, even though the Qur'ān will never there is a contradiction in it as in Sūrah an-Nisā' verse 82.[32]

By looking at such phenomena, the paradigm of scientific interpretation must become a part and even in the discussion within it must use the method of thematic interpretation or the so-called *al-mauḍū'i* interpretation whose discussion is the same as the principles of discussing thematic interpretation. In conclusion, scientific mufassir must compile all the verses of the Qur'ān that have the same theme of discussion so that they can arrive at the true meaning[33]

4. The response of the scholars about *tafsir 'ilmi*

In all aspects related to life in this world, everyone has their own views regarding a particular field, including the field of science. Differences of opinion among people, especially in this matter, are that they are people who have high and wide knowledge in the field of religion, namely the clergy, which is something that cannot be avoided in the development of the Islamic world. This has happened since the time of the companions, the salaf scholars until the present khalaf era because each scholar has a different educational background, study period, experience, and tendencies that give birth to different views even though the source remains the same, namely Qur'ān and ḥadiś. So that in the field of

[32] Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami*…, p. 171
[33] Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami*…, p. 171

interpretation which in this study focuses on scientific interpretation, there are many differences of opinion among scholars regarding this scientific interpretation, namely scholars who are pro and contra as well as moderate groups who are in between.

The following is explained by pro scholars*r*, namely those who open up opportunities for scientific interpretation are:

- Imam al-Gazālī or known as Algazel in the western world, and the Hujjatul Islam is one of the many scholar who are the main pillars of other scholars in supporting scientific interpretations of the Qur'ān. In his book titled "*Jawāhir al-Qur'ān*" he argues that all previous and later branches of knowledge, which are known and unknown, all originate from the Qur'ān Karīm.[34] In the chapter "the development of the early and late sciences from the Qur'ān" in the book it is said that "*The principles of science that have been or have not been mentioned by us are not outside the Qur'ān, because they all come from ocean of Allah's wisdom. We have mentioned above that the Qur'ān is like an ocean without shore and if that ocean were ink to write the words of my Lord, it would surely dry up before the words of my Lord were finished being written.....*" [35]

  Likewise in his magnum opus "*Iḥya' 'Ulumuddīn*" which he wrote before the book "*Jawāhir al-Qur'ān*" above by quoting the opinion of Ibn 'Mas'ūd he said: "*Whoever wants to know the knowledge of people first and then, then meditate on the Qur'ān*" . According to him: "*How is it possible for us to obtain it only with its subtle interpretation ?*" He further elaborated by saying:" *All knowledge is included in deeds (af'al) and the attributes of Allah. While in the Qur'ān there is an explanation of Essence, Af'al and His characteristics. This knowledge will have no limits. And in the*

[34] Warsiman Subkan, *Sains dan Islam*…, p. 105-106
[35]Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami*…, p. 141

Qur'ān there are instructions or hints in its entirety. Meanwhile, the ways to go into the details also return to understanding the Qur'ān. Merely sticking to its abstract interpretation, will not give any hint about it....."[36]

- Fakhruddīn ar-Rāzī, a Muslim scientist who has the nickname "*Sultānul Mutakallimīn*". He also support scientific interpretation of the Qur'ān. He proved that he supports al-Gazālī opinion above and by compiling his famous magnum opus entitled "*Mafātih al-Gaib*" or "*Tafsīr al-Kabīr*." It contains scientific discussions concerning all forms of knowledge, such as philosophy, astronomy, medicine, natural sciences and so on. If al-Gazālī is said to be the cornerstone of the scientific model of theoretical interpretation, then Fakhruddin ar-Rāzī is the person who has applied this model of interpretation in his magnum opus.[37]

- Muḥammad 'Abduh, a contemporary Islamic reformer who came from Egypt who has influenced generations of Islamic reformers and contemporary scholars afterward.[38] Known as the originator of the idea of "freedom of rationality" in interpreting the Qur'ān. According to him, the miracles of the Qur'ān in the course of time can amaze mankind because they are able to cancel something (facts or knowledge) other than because the Qur'ān covers various social matters (*al-ijtimā'iyyah)* and the universe (*al-'alam al-kauniyyah*) also covers various forms of scientific and historical problems that were not yet known to humans when the Qur'ān was revealed at the time of Rasulullah SAW.[39] So that in his interpretation which tends to prioritize reason (rationality), he

[36] Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami*…, p .139
[37] Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami*…, p. 142
[38] Iskandar Usman, *Muhammad Abduh dan Pemikiran Pembaharuannya,* in Journal Pemikiran Islam, Vol. 2, No. 1, (Januari-Juni 2022), p. 83-84
[39] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 36-37

provides a lot of inspiration and stimulant for the discovery of scientific and technological theories through understanding the verses of the Qur'ān through the amalgamation of western civilization or science which indirectly shows the function of *tabyin* (explanation), *al-i'jaz* (miracles) and *istikhraj al-ilm* (removing knowledge) for Muslim civilization which at that time was still underdeveloped in terms of scientific theory and knowledge and technology possessed by the Western world.[40]

- Jalāluddīn as-Suyūṭī, is a scholar who authored the famous book of jalalain interpretations which is still used today in almost all Islamic boarding schools in Indonesia. Besides his book, he also compiled the book "*al-Itqān fī 'Ulūm al-Qur'ān*." It can be seen in the chapter "*Fī 'Ulūm al-Mustanbathah min al-Qur'ān*", he acknowledges the existence of this scientific style of interpretation by quoting verses from the Qur'ān, ḥadiś, aśar and the opinions of the scholars:

    - Allah said: "We have forgotten nothing in the Book" (Sūrah al-An'ām verse 38)

    - And We have sent down to you the Book (al-Qur'ān) to explain everything and guidance and mercy and good tidings for those who surrender (Sūrah an-Naḥl verse 89)

    - The Prophet SAW said: "In the future there will be a lot of slander." Someone asked: "How do we get out of it all ?" He replied: "Kitābullāh, He contains everything that was in the past and what news happened after you and what laws happened between you (HR. At-Tirmiżī and others)[41]

- Among other scholars who pro or accept this style of interpretation is Badruddīn az-Zarkasyī (d. 794 H) in his book *al-Burhān fi 'Ulūm*

[40] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 36-37
[41] Mohammad Nor Ichwan, *Tafsir 'Ilmiy Memahami*…, p.145

al-Qur'ān, al-Baiḍāwī (d. 685/691 H)) in in his book *Anwār at-Tanzīl wa Asrār at-Ta'wīl*, Tanṭawi Jauharī (d. 1358 H) in his book *al-Jawāhir fī Tafsīr al-Qur'ān al-Karīm*, in writing this commentary he was more motivated because he saw the fact that Muslims has been trapped in a backward situation, especially in the field of science and technology so that he feels he has received a call from Allah SWT to make the Qur'ān as a guide or encouragement in the development of science.[42]

Meanwhile, groups that reject or deny scientific interpretation include:

- Abu Isḥāq Ibrāhīm bin Mūsā as-Syātibī al-Andalusi (d. 790 H), was a major figure who opposed scientific interpretation. In his book entitled "*al-Muwāfaqāt fī Ushūl asy-Syarī'ah*", he says "*anna al-Qur'ān lam yagsuq fīhi*" (the Qur'ān was not revealed with that intention). Because it is the salaf scholars who know more about the contents of the Qur'ān, but the fact is that none of them (namely the companions) think so. According to him, we should not understand the Qur'ān except as understood by the companions and at the level of their knowledge. His refusal is based on the fact that the Qur'ān is a book of *tasyri'* and is not a book that teaches modern science as the view of scholars who recognize the scientific interpretation of the Qur'ān. His opinion was corroborated by Abu Hayyan al-Andalusi. He sharply criticized scholarly commentators such as Fakhruddīn Ar-Rāzī who, according to him, had deviated from the scope of the science of interpretation.[43]

- Rasyīd Riḍā, an Islamic reformer in the 19th century. He was also a student of Muhammad Abduh and the person who continued

[42] Iswatun Khasanah, *Penafsiran Kata Awan dalam Al-Qur'an (Studi Tafsir Zaghlul an-Najjar Dalam Tafsir al-Ayat al-Kauniyah fi al-Qur'an al-Karim),* Thesis 2019, p. 32-33

[43] Iswatun Khasanah, *Penafsiran Kata Awan*…, p. 36

writing the commentary of *al-Manār*. Seems not in line with his teacher. Even in the interpretation of *al-Manār*, the writing deviates from what Muḥammad ‘Abduh released. The difference between the two can be seen from the methodological aspect and their attitude towards the style of scientific interpretation. This can be proven in the introduction to his book of commentaries, where he criticizes people who use the scientific paradigm in their interpretations and commentators, even though it is not done directly.[44]

- Amīn al-Khūlī, one of the contemporary scholar who has reformed the interpretation of the Qur’ān, which according to him is the highest literary work. In response to the interpretation of this style, he defines it as an interpretation that defines scientific terms into the expressions of the Qur'anic texts which also seeks to produce various kinds of knowledge (*istikhraj al-'ilm*) and expresses his philosophical studies from the expressions of the Qur’ān texts. Even so, he still criticizes the existence of this type of interpretation, namely (1) the interpretation of modern science is not lexologically sound, (2) it violates philological studies, (3) ethically, the verses of the Qur’ān teach the value of ethical and religious messages. relating to human views on life, not cosmological views, and 4) the impossibility of the Qur’ān containing the views of scientific theories that can change.[45]

- Shaykh Maḥmūd Syaltūt, an Egyptian al-Azhar Shaykh (d. 1964 AD), thinks that actually the view of scientific interpretation of the verses of the Qur’ān is wrong. The Qur’ān was revealed and spoke to humans, not to strengthen scientific theories because that way it could make the perpetrators trapped in interpretations that were not

[44] Mohammad Nor Ichwan, *Tafsir ‘Ilmiy Memahami*…, p. 152
[45] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 44

based on truth and denied the miracles of the Qur'ān itself. In addition, it makes the Qur'ān busy explaining, explaining and strengthening science (which at the moment may be true) but not necessarily in the future because science is always developing and not fixed.[46]

- Those who refuse think that scientific interpretation is wrong because interpreters are labeled as being too exaggerated in interpreting verses. As for those who argue that the discussion of the Qur'ān about natural phenomena does not need to be understood in depth, it is enough just to think about and become an afterthought as in Surah Āli 'Imrān verses 190-191. So that in another sense, the cues mentioned in the Qur'ān in every verse of its kauniyyah regarding the secrets of all creatures, creation to resurrection and natural phenomena both on Earth and in outer space are enough to serve as a motivation for humans to want to contemplate, think, take lessons, so that their faith increases, believes and loves their God more[47]

  As for the moderat group, they are generally contemporary ascholars, including one of the al-Azhār sheikhs, Mustafa al-Maraghi (d. 1945 AD). He said that the Qur'ān is not a holy book that contains all the knowledge in detail, but it includes general basic principles that are very important for humans to know in order to achieve the perfection of body and soul. The Qur'ān opens a wide door for experts to be able to master various knowledge so that it can be explained in detail to everyone according to the era in which the mufassir lives. However, it is not permissible for a scholar to take the verses of the Qur'ān and then use them to

[46] Udi Yuliarto, *Al-Tafsir Al-Ilmi*…, p. 39-40

[47] Umi Nur Hasanah, *Keanekaragaman Warna Gunung dalam Al-Qur'an (Studi Analisis Penafsiran Zaghlul An-Najjar dalam Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm),* Thesis 2019, p. 41-42

describe the truth of science, and vice versa by attracting knowledge to interpret the verses of the Qur'ān. However, if there is a concordance between the two that is fixed and certain in an external sense, then there is nothing wrong with interpreting the Qur'ān with the help of this knowledge.[48]

B. The Method of Interpretation

1. The definition of interpretation method

Etymologically, the word "method" comes from the Greek "*methodos*" which means way. In English, it is written as "method" and Arabic translates it as *ṭariqoh* or *manḥaj*. As for the Indonesian language itself, the word method has the meaning of "an orderly and well-thought way to achieve a goal (in science or so on), a systematic way of working to facilitate the implementation of an activity in order to achieve a specified goal."[49] Methods are used for various objects, both related to discussing a problem, thinking, reasoning and physical work, all of which involve methods.[50]

According to Nasharuddin Baidan, the method is like a tool to achieve a goal that has been planned so that in relation to the study of Qur'ān interpretation, the method of interpretation can be understood as an orderly, directed, systematic and well-thought way to achieve a good and right understanding about what Allah meant in the verses of the Qur'ān revealed to the Prophet Muḥammad SAW.[51] The method of interpretation is the method used by a scholar to explain or interpret the verses of the Qur'ān based on the principles that have been formulated and acknowledged for their truth in order to arrive at the purpose of

[48] Udi Yuliarto, *Al-Tafsir Al-Ilmi*…, p. 40

[49] Shofifuddin and Mursid Adi Saputra, *Validitas Metodologi Interpretasi Al-Qur'an*, in Hikami: Ilmu Al-Qur'an dan Tafsir, Vol. 2, No. 2, (Desember 2021), p. 28

[50] Hujair A. H. Sanaky, *Metode Tafsir (Perkembangan Metode Tafsir Mengikuti Warna atau Corak Mufassirin)*, in Journal Al-Mawarid, Edition XVIII (2008), p. 266

[51] S Shofifuddin and Mursid Adi Saputra, *Validitas Metodologi Interpretasi*…, p. 29

interpretation.[52]

In interpreting the Qur'ān, there are several important aspects used by commentators. These aspects are like the components that make up something (encompassing it) so that they become inseparable parts, namely the source of interpretation, interpretation type, interpretation method itself and interpretation style.

2. Interpretation source

In Arabic, the word "source" is often expressed by the word "*mashdar*" and its plural form is "*mashadir*". In language, the word "*mashdar*" refers to the meaning of "*as-Sudur*" which is the place where the interpretation leads (Taimiyah, 1971). And in the study of the science of exegesis, what is meant by sources of interpretation are the sources used by the mufassirs in interpreting the Qur'ān and placing it in their exegesis. Fahd ar-Rumi put forward the meaning of "*al-Mashdar*" which refers to the source used in the interpretation, be it the Qur'ān, as-Sunnah, the history of the companions or the works that are used as references in the interpretation.[53]

The sources of interpretation used by the various mufassir are:

a. Al-Qur'ān

"*Al-Qur'ān yufassir 'ba'ḍuhū ba'ḍan*", (Qur'ān interprets partly one by another) a concept which the scholars developed into a maudlū'î interpretation where its popularity is increasing in the contemporary era. Maudhui mufassir figures among them Amin al-Khulli, Bintal-Syathi, Abu Hayyan al-Farmawi, Hassan Hanafi, Fazlur Rahman, etc. This concept is actually based on *munāsabah al-Āyah*, namely the existence of

[52] Abdul Mustaqim, *Metode Penelitian Al-Qur'an dan Tafsir*, (Yogyakarta: Idea Press Yogyakarta, 2022), p. 15

[53] Annisa Nur Fauziah, Deswanti Nabilah Putri, *Cara Menganalisis Ragam Sumber Tafsir Al-Qur'an*, in Journal Iman dan Spiritualitas, Vol. 2, No. 4, (November 2022), p. 534

a relationship between one verse and another verse. As a simple understanding, Imam al-Qurṭubī made sūrah al-Nisā' verse 82 and Imam Zamakhsyarī made Sūrah Hūd verse 1 as dalāil (proof) the existence of relationship and connection between verses in the Qur'ān. (Fath, 2010).[54]

The source of the interpretation of the Qur'ān bil Qur'ān has actually also occurred since the time of the Prophet SAW, namely when the Prophet was asked the interpretation of sūrah al-An'ām verse 82 about the meaning of tyranny (*ẓulm*), then he explained it with Sūrah Luqmān verse 13 which implies that *syirk* is the greatest tyranny, as narrated by Muslim from 'Abdullāh ibn Mas'ūd.[55]

Other example of Qur'ān bil Qur'ān interpretation as in surah Maryam verse 71:[56]

وَاِ نْ مِّنْكُمْ اِلَّا وَا رِدُهَا ۚ كَا نَ عَلٰى رَبِّكَ حَتْمًا مَّقْضِيًّا

Meaning:

"And there is no one among you who does not go to it (hell). That is for your Lord a predetermined provision."

Hafsah binti 'Umar understood the verse that everyone would go to hell, but this understanding was later confirmed by the Prophet SAW by reminding him of the continuation of the verse:

ثُمَّ نُنَجِّى الَّذِيْنَ اتَّقَوْا وَّنَذَرُ الظّٰلِمِيْنَ فِيْهَا جِثِيًّا

Meaning:

"Then We will save those who are pious and leave those who are unjust in (Hell) in a state of kneeling."

This Qur'ān bil Qur'ān interpretation is not only as *syarh*

[54] Aramdhan Kodrat Permana, *Sumber-Sumber Penafsiran Al-Qur'an*, in Journal At-Tatbiq: Jurnal Ahwal al-Syakhsyiyyah, Vol. 5, Edition 1 (2020), p. 79

[55] Aramdhan Kodrat Permana, *Sumber-Sumber Penafsiran*…, p. 80

[56] Amri, *Tafsir Al-Qur'an pada*…, p. 24-25

(explanatory), but also uses the principles set by the scholars such as *muṭlaq-muqayyad*, *naskh-mansūkh*, *mujmal-mubayyan* and according to Ibn Taimiyyah, this way is the best interpretation.[57]

b. As-Sunnah

As-Sunnah or hadith is the second source of law used by Muslims after the Qur'ān. This hadith also have functions as tabyin (explainer) of the vague meanings of the Qur'ān. However, the scholars differed on whether all the verses of the Qur'ān were interpreted by the Prophet in the hadith or only a few. According to Ibn Taimiyyah and as-Suyūṭī, Rasūlullāh SAW explained all the verses of the Qur'ān. Meanwhile, according to Husain aż-Żahabi, the Prophet SAW did not explain all the verses but only explained most of the meanings of the verses of the Qurān.[58]

Ibrahim Khalifah held a different opinion by stating that the Prophet SAW only explained verses that were not understood directly by his very few companions. This is because they have understood the Qur'ān directly which was revealed using their own language (Arabic language) so that their strong linguistic instincts allow them to easily grasp the meaning of the Qur'ān. Another factor is because they understand the historical context when the Qur'anic verse was revealed (*asbābun nuzul*).[59]

The hadith application as a source of interpretation can be used when there are no instructions for interpretation in the verses of the Qur'ān regarding certain verses. For example of the interpretation of the *Qur'ān bil ḥadiś* like such as punishment in the case of theft in sūrah al-Māidah verse 38:[60]

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[57] Aramdhan Kodrat Permana, *Sumber-Sumber Penafsiran*…, p. 80

[58] Ali Muhsin, *Sumber Autentik dan Non Autentik dalam Tafsir al-Qur'an*, in Religi: Journal Studi Islam, Vol. 5, No. 1, (2014), p. 5

[59] Ali Muhsin, *Sumber Autentik dan*…, p. 5-6

[60] Syarafudin H.Z., *Tafsir Bi Al-Ma'sur (Kelebihan dan Kekurangan Serta*

وَا لسَّا رِقُ وَا لسَّا رِقَةُ فَا قْطَعُوْٓا اَيْدِيَهُمَا جَزَآءً بِمَا كَسَبَا نَكَا لًا مِّنَ اللّٰهِ ۗ وَا للّٰهُ

عَزِيْزٌ حَكِيْمٌ

Meaning:

"As for men and women who steal, cut off their hands (as) recompense for what they have done and as punishment from Allah. And Allah is Mighty, Most Wise."

That verse only instructs Muslims to carry out the law of cutting off the hands of anyone who steals, both men and women. However, the verse does not mention the level of theft (amount) that requires the implementation of this law. Interpretation of this verse can be found in this hadits:

لاَ تُقْطَعُ يَدُ السَّرِقِ اِلاَّ فِي رُبْعِ دِيْنَارٍ فَصاَعِدً

Meaning:

"A thief's hand is not cut off, except in the theft of a quarter of a dinar more"

Apart from that, there is another hadith which explains the limitation of cutting hands, namely that cutting hands is done from the wrist, not from the elbows or shoulders. The hadith reads: "Rasūlullāh SAW someone came with a thief, then he cut off the thief's hand from the wrist"[61]

Here it can be seen how important the role of as-Sunnah is in explaining the verses of the Qur'ān where in this context, ḥadiś has the function of limiting the absoluteness of Qur'ān verses (*taqyid al-Mutlaq*).[62]

There are at least 3 arguments that legitimize the validity of ḥadiś as an authentic interpretation source, namely: First, Prophet Muḥammad

Perkembangannya), in Journal Suhuf, Vol 29, No. 1, (Mei 2017), p. 105

[61] Abu Azam Al Hadi, *Kedudukan Hukum As-Sunnah dalam Al-Qur'an*, in Al-Daulah: Journal Hukum dan Perundangan Islam, Vol. 8, No. 1, (April 2018), p. 99

[62] Isa Ansori, *Tafsir Al-Qur'an dengan Al-Sunnah*, in Journal Kalam, Vol. 11, No. 2, (Desember 2017), p. 534

SAW was the messenger of Allah SWT as the first human being to receive the revelation of the Qur'ān. So consequently he is the person who most understands about the ins and outs of the Qur'ān so that he has the authority in interpreting it.[63] So the hadiths conveyed by the Prophet SAW can be used as a source of interpretation because what the Prophet SAW said is nothing but a revelation from Allah, even though in pronunciation from the Prophet, but the meaning comes from Allah.[64] Then second, position of hadith as the second basic source of Islam after the Qur'an. And third, there is an obligation to obey the Prophet SAW as in the sūrah an-Nisā' verse 59 and a guarantee that what comes from the Prophet SAW is the emission of God's revelation.[65]

c. The companions *riwāyah*

As well known that the people who know and understand correctly about the Qur'ān are the companions. The companions received and narrated the interpretation of the Prophet SAW in detail *musyafahat* (mouth to mouth)[66] and using this source is carried out when no instructions for interpretation are found in Qur'ān verses and as-Sunnah. Among them there is a difference in ability in this regard, there are companions who always accompany the Prophet SAW, there are those who have deep knowledge of literature, there are those who witness *asbābun nuzūl* and others who do not witness it. There are those who know the customs in the use of language perfectly and there are also those who know the behavior of the Jewish people. Ibn Mas'ūd revealed as *taḥadduś bin 'ni'mah* regarding his mastery in the *asbābun nuzūl* verse, he said "He said that a verse from the Qur'ān was not sent down unless I know what it was sent down for and where it was sent down.[67]

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[63] Ali Muhsin, *Sumber Autentik dan*…, p. 6-7

[64] Muhammad Zaini, *Sumber-Sumber Penafsiran al-Qur'an,* in Journal Subtantia, Vol. 14, No. 1, (April 2012), p. 31

[65] Ali Muhsin, *Sumber Autentik dan*…, p. 7

[66] Buaidha Mukhrim BM, *Kualitas dan Keistimewaan Penafsiran Sahabat*, in Al-Mustafid: Journal Quran and Hadith Studies, Vol.. 1, No. 1, (Januari-Juni 2022), p. 5

[67] Aramdhan Kodrat Permana, *Sumber-Sumber Penafsiran*…, p. 82

The understanding of the companions was very deep, for example that 'Uśmān bin ‘Affān and Ibn Mas‘ūd when the Qur’ān was recited in front of them, if they learned 10 verses from the Prophet SAW, they would not move on to another verse until they understood and practiced it. For example of interpreting the Qur’ān verses using the *riwāyah* of the companions is ‘Umar bin Khattāb interpretation of sūrah al-Hadīd verse 11:

مَنْ ذَا الَّذِيْ يُقْرِضُ اللّٰهَ قَرْضًا حَسَنًا فَيُضٰعِفَه لَه وَلَهٗٓ اَجْرٌ كَرِيْمٌ

Meaning:

“Whoever lends to Allah with a good loan, Allah will return it multiplied for him, and for him a noble reward.”

According to him, the intended meaning is to spend wealth for purposes in the way of Allah[68]

d. Tabi’in *riwāyah*

The scholars differed on the use of the *riwāyah* or tabi’in words to be used as a source of interpretation or not. Those who reject it, such as Ibn Aqil and Imam Aḥmad, are of the opinion that interpretations originating from tabi’in that are not connected to Rasūlullāh SAW cannot be accepted. The reason is that they have never heard anything from the Prophet SAW directly and have not witnessed the events of the revelation of the verses. There is a history from Abu Hanifah that he said, “what comes from the Prophet SAW, I must accept it wholeheartedly, what comes from the companions we will choose and as for what comes from tabi'in, then they are ordinary people like we” (Mahmud Basuni Faudah, 1987: 42-43 and aż-Żahabi, Vol. 1, 1976: 128)[69]

But the opinion that allows it says that basically most of the mufassir take the tabi'in opinion because it is tabi'in whose interpretation comes from the companions. In this case Qatadah said: “Not in every

[68] Syaeful Rokim, *Tafsir Sahabat Nabi: Antara Dirayah dan Riwayah*, in Al-Tadabbur: Journal Ilmu Al-Qur’an dan Tafsir, Vol. 5, No. 1, (Juni 2020), p. 91

[69] Ma’mun Mu’min, *Metodologi Ilmu Tafsir*, (Yogyakarta: Idea Press Yogyakarta, 2016), p. 65-66

verse of the Qur'ān, unless I hear something (interpretation) from him (companions). Therefore, most of the many tabi'in interpretations in his books always quote and adhere to the companions interpretations. (Imam as-Suyūṭī, Vol. 2, t.t,: 179). So this fourth interpretation source can be used with strict conditions, the main thing is as long as there is a strong *atsar* and provides an explanation that the tabi'in really takes the words of the Prophet SAW and his companions also their opinions do not conflict with the Kitābullāh.[70]

The tabi'in who became expert commentators are numerous, but among the well-known are Mujahid, Qatadah, 'Atha' bin Abi Rabah, Ikrimah Maula Ibn Abbas, Sa'id bin Jubair, Zaid bin Aslam, etc. Meanwhile the source of the interpretation used by the tabi'in is the Qur'ān, everything that was narrated from the Prophet SAW and conveyed to his companions, anything received from the *ahli kitab* as long as it does not contradict with the Kitābullāh and the results of their contemplation of the Kitābullāh.[71]

The characteristics of the interpretation at this time are: First, has been entered by many Israiliyyat and Nasraniyyat because of the entry of a group of Jews and Christians into Islām. Second, their interpretations are always influenced by studies of science and traditions according to a special style of management identity where they study, that is, the inhabitants of each country prioritize works of interpretation originating from that country, for example the people of Mecca prioritize the Ibn 'Abbas interpretations. And third, the emergence of controversies and disagreements about the interpretation of the aqidah verses.[72]

For example in tabi'in interpretation like Mujahid did in interpreting sūrah al-'Ādiyāt verses 1-3. He interprets *wal-'ādiyāti ḍab-ḥā* to mean horses that sound when they run, *fal-mūriyāti qad-ḥā* is

[70] Ma'mun Mu'min, *Metodologi Ilmu Tafsir*…, p. 66-67
[71] Ma'mun Mu'min, *Metodologi Ilmu Tafsir*…, p. 61-62
[72] Ma'mun Mu'min, *Metodologi Ilmu Tafsir*…", p. 62-63

interpreted to deceive stallions, and *fal-mugīrāti ṣub-ḥā* is interpreted to mean horses used for war vehicles.[73]

e. Israiliyyat

In scholars term, Israiliyyat is defined into two meanings, namely 1) stories and tales that are embedded in interpretations and ḥadiś whose origins are derived from Jewish, Christian and other sources. 2) Stories deliberately smuggled by the enemies of Islām into interpretations and ḥadiś that have absolutely no basis in old sources. (Muḥammad Husain aż-Żahabi, 1990, p. 13-14). Sayyid Ahmad Khalil defines israiliyyat as narrations originating from the people of the book, both related to their religion and those that have nothing to do with it. The attribution of the history of israiliyyat to the Jews was because the narrators were Jews who had converted to Islam [74]

3. Interpretation type

The form or type of interpretation is generally divided into two type, namely:

a. *Tafsīr bil ma'śur*

The word *bil-ma'śur* comes from isim *maf'ul aśara* which means *manqul* (was quoted). The picking here is from Allah, the Prophet SAW, companions and tabi'in (as-Sabuni, 2001: 107). So it can be understood that the interpretation of *bil-ma'śur* is the information or explanation intended in the Qur'ān which is quoted (taken) from Allah (Qur'ān), from the Prophet SAW (ḥadiś), from companions and tabi'in. Although many disputed the interpretation of tabi'in, aż-Żahabi still included the tabi'in interpretation as *bil-ma'śur* because Ibn Jarir in his interpretation a "*Jāmi'ul Bayān fī Tafsīr al-Qur'ān*" also included it [75] The interpretation

[73] Rahmadi Agus Setiawan, Masropin, *Tafsir Al-Qur'an dengan Pendapat Tabi'in*, in Journal Kewarganegaraan, Vol. 6, No. 2, (September 2022), p. 5032

[74] Jani Arni, *Metode Penelitian Tafsir*, (Pekanbaru: Daulat Riau, 2013), p. 40-41

[75] Abu Bakar Adanan Siregar, *Tafsir Bil Ma'tsur (Konsep, Jenis, Status, Dan Kelebihan*

of *bil-Ma'śur* is divided into 4 as previously explained in interpretation source.

b. Tafsir *Tafsīr bir-ra'yi*

The word "*ar-ra'yi*" means *al-I'tiqādu* (belief), *al-aqlu* (reason). *al-tadbīru* (contemplation). Meanwhile, in terms of the interpretation of *bir-ra'yi*, it's a type of interpretation in which the scholar has serious ijtihad in interpreting the Qur'ān to understand the texts of the verses, expressing the meanings of the words and meanings contained therein. So a scholar is required to understand Arabic from all sides, *lafaẓ-lafaẓ*, Arabic poetry, *asbābun nuzūl*, *nasikh mansukh* and other knowledge needed in interpretation. Because this interpretation uses scientific reasoning through rational reason, the scholars different argument for using it. If the ijtihad is considered correct, it means that it is worthy of being guided, if it deviates, must be shunned[76]

The criteria for using acceptable ijtihad is must be far from stupidity and misguidance. In *al-Itqān* by as-Suyūṭī it's stated that ijtihad must rely on the narrations of Rasulullāh SAW by avoiding *ḍaif* and *maudū'*, companions riwāyah, grammar and uslub, extensive knowledge of syarīah.[77]

Beside that, scholar must avoid interpreting without having adequate knowledge, follow the wishes of the madzhab, talk about something that only Allah knows and avoid stipulating that this is the meaning that Allah wants without any evidence.[78]

For example interpretation book that using this type is *Tafsīr Jalālain* by Jalaluddīn as-Suyūṭī, *Anwār al-Tanzil wa Asrar al-Ta'wil* (al-

Serta Kekurangannya), in Journal Hikmah, Vol. 15, No. 2, (Juli-Desember 2018), p. 160-161

[76] Himmatul Husna, *Klasifikasi Tafsīr Bi Al-Ma'śur dan Bi Ar-Ra'yi Antara Mannā' Al-Qaṭṭan dan Musā'id al-Tayyar*, Thesis 2017, p. 78-79

[77] TM. Hasbi ash-Shiddieqy, *Ilmu-Ilmu Al-Qur'an*…, p. 219

[78] TM. Hasbi ash-Shiddieqy, *Ilmu-Ilmu Al-Qur'an*…, p. 220

Baidawi), *Tafsīr Mafāftih al-Gaib* by Fakhruddīn ar-Rāzī, etc

4. Interpretation method

In general, the commentators divide the method of interpretation into 4 types, namely:

a. *Tahlilī* method (analysis)

Namely the interpretation method that interprets verses at length in accordance with the *tartīb mushafi* starting from sūrah al-Fātihah to surah an-Nās tries to explain the verses of the Qur'ān analytically from various aspects such as *asbābun nuzūl* (context the verse revealed) *munāsabah*, (relationship between verse and another) *balagah* (rhetoric and beauty of the language), applicable laws, and others.[79] Malik bin Nabi with his opinion said that the main aim of the scholars using this method is to lay the rational foundations for understanding and proving the miracles of the Qur'ān.[80]

The advantages of this tahlilī method are that it is widely used by classical and mid-level scholars with various styles, thoroughly examines the verses being discussed, has a broad scope, comprehensive language and contains various types of ideas and ideas because the scholar has freedom in expressing his thoughts.[81]

Even so, there is a weakness of this method, namely that the *tahlilī* interpreter tries to present all of his understanding of the meaning and message of the verse without paying attention to other verses related to the issue so that the reader feels boredom, even though at the same time the presentation given is almost never complete.[82] Besides that, there are

[79] Abdul Mustaqim, *Metode Penelitian Al-Qur'an…*, p. 16-17

[80] M. Quraish Shihab, *Kaidah Tafsir Syarat*…". P. 378

[81] Iqlima Nurul Ainun, Lu'luatul Aisyiyyah, Badrruzzaman M. Yunus, *Metode Tafsir Tahlili dalam Menafsirkan Al-Qur'an: Analisisi Pada Tafsir Al-Munir*, in Jounal Iman dan Spiritualitas, Vol. 3, No. 1, (Januari-Maret 2023), p. 40

[82] M. Quraish Shihab, *Kaidah Tafsir Syarat*…, p. 378-379

3 other disadvantages namely making the Qur'ān appear partial, giving birth to subjective products, not yet providing a complete answer to the problems faced, the existence of israiliyyat because there are no restrictions on resource extraction.[83]

Tahlili method interpretation can be used bil-ma'tsur or bir-ra'yi. Exam interpretations book susing the tahlili method in bil-ma'tsur are: *Jami' Bayān fī Tafsīr al-Qurān* (Ibn Jarir ath-Tabarī), *Tafsīr al-Qur'ān al-'Adzīm* (Ibn Katsir) and *al-Dur al-Mantsur fī al-Tafsīr bi al-Ma'śur* (as-Suyūṭī). While those in the form of bir-ra'yi include: *Tafsīr Mafātihul Gaib (ar-Rāzī)*, *Lubabut Ta'wil fi Ma'ani Tanzil* (al-Khazin), *Anwār al-Tanzil wa Asrar al-Ta'wil* (al-Baidhawy), *Tafsīr al-Qur'ān al-Karīm* (Muḥammad Rasyid Ridha).[84]

b. *Ijmāli* method (global)

This method is a interpretation method that interprets the verses of the Qur'ān globally which outlines the general meanings they contain.[85] So the explanation is done by giving the main messages of the verse in a straightforward, concise and concise language that is easy to understand.[86]

The advantage of this interpretation is that the language is concise, making it easier to be understood equally by Muslims. While the weakness is because of the same summary, it cannot explain the meaning broadly and at length which makes solving the problem not completely resolved.[87]

Examples of interpretations using this method include like *Tafsīr*

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[83] Iqlima Nurul Ainun, Lu'luatul Aisyiyyah, Badrruzzaman M. Yunus, *Metode Tafsir Tahlili*…, p. 40

[84] Iqlima Nurul Ainun, Lu'luatul Aisyiyyah, Badrruzzaman M. Yunus, *Metode Tafsir Tahlili*…, p. 36

[85] M. Quraish Shihab, *Kaidah Tafsir Syarat*…, p. 381

[86] Abdul Mustaqim, *Metode Penelitian Al-Qur'an…*, p. 16

[87] Abdul Mustaqim, *Metode Penelitian Al-Qur'an*…, p. 16

Jalālain by Jalaluddīn as-Suyūṭī and Jalaluddīn al-Mahalli and *Tafsīr al-Farīd Li al-Qurān al-Majīd* by Muḥammmad ‘Abdul Mun’im al-Jamal.[88]

c. *Muqaran* method (comparative)

This method is interpretation method whose explanation is by comparing the verses of the Qur’ān with the hadiths or comparing the opinion of one mufassir figure with other scholars in one or several verses or you can also compare the Qur’ān with other holy books.[89]

The advantage of this method is that it can find out different points of view in understanding verses so that it can be tolerant of other opinions and with this method it can automatically study various verses and hadiths as well as the opinions of other mufassir. Then the disadvantages ccan be seen that using this method only describes and compares the opinions of previous mufassirs so that they do not propose new interpretations. That way this method is less able to solve social problems because it’s only comparative and not suitable for the level of ordinary people (*awam*).[90]

One example of this interpretation can be found in Tafsīr al-Qurtubī. There it is explained that in verse 12 of the sūrah al-Hujurat, there are differences of opinion in reading وَلاَ تَجَسَّسُواْ (And don’t look for other people's faults). Abu Raja', al-Hasan and others read it with وَلاَ تَحَسَّسُوْا (using the letter ḥa). According to one opinion, the meaning (at-tajassus) is search/examination. And *at-taḥassus*, the meaning is something that humans find with some of their senses. Meanwhile the second opinion interprets that *at-tajassus* is something that is sought by a

[88] Akhdiat Akhdiat, Abdul Kholiq, ,*Metode Tafsir Al-Qur’an: Deskripsi Atas Metode Tafsir Ijmali*, in Journal Iman dan Spiritualitas, Vol. 2, No. 4, (November 2022), p. 646

[89] Abdul Mustaqim, *Metode Penelitian Al-Qur’an…*, p. 17

[90] Syahrin Pasaribu, Metode Muqaran Dalam Al-Qur’an, in Journal Wahana Inovasi, Vol. 9, No. 1, (Januari-Juni 2020), p. 46

messenger for others and *at-taḥassus* is interpreted as something that you seek for yourself. But the first opinion is more popular.[91]

d. *Mauḍū'i* method (thematic)

Linguistically, the word *maudhu'i* comes from the word *maudhu'*. The isim *maf'ul* of *fi'il madhi*, *wadhu'a*, which has the meaning that is placed, which is delivered, which is placed or made up, which is discussed or the theme or topic. This last meaning that is relevant to the definition of maudhui interpretation[92]

Meanwhile in term, meaning method interpretation by taking a certain theme and then collecting related verses, then explaining one by one from the semantic aspect, the interpretation, and connecting the verses to one another so as to form a complete and comprehensive idea about the theme being studied.[93] According to Quraish Shihab, this method directs the eyes to a certain theme. Collect all the verses that discuss it, analyze, compile verses that are generally associated with specific ones, muthlaq with muqayyad including a thorough and thorough description of the themes discussed.[94]

The advantages of this method can be said to be more practical and systematic because it can adapt to the times (dynamic) so that it can save time, be effective and efficient in reading and studying it. The understanding presented is also considered intact so that it can solve the problem properly.[95] But in same time, the disadvantages like drawback is the fragmentation of the verse because it only discusses selected topics and makes the understanding of the verse being interpreted limited[96]

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[91] Syaikh Imam Al-Qurthubi, *Tafsir Al Qurthubi Terj*., (Jakata: Pustaka Azzam, 2009), p. 78

[92] M. Sja'roni, *Studi Tafsir Tematik,* in Journal Study Islam Panca Wahana 1, Edition 12 (2014), p. 2

[93] Abdul Mustaqim, *Metode Penelitian Al-Qur'an…*, p. 17

[94] M. Quraish Shihab, *Kaidah Tafsir Syarat*…, p. 385

[95] M. Sja'roni, *Studi Tafsir Tematik*, p. 10-12

[96] Moh. Tulus Yamani, *Memahami Al-Qur'an Dengan Metode Tafsir Maudhu'i*, in J-PAI,

Among the examples of commentary books that focus on a theme of discussion in the Qur'ān are: *al-Bayān fī Aqsam al-Qur'ān* by Ibn Qayyim al-Jauziah, *Majaz al-Qur'ān* by Abu 'Ubaid, *Mufradat al-Qur'ān* by Raghib al-Isfahani, *al-Bidāyah fi al-Tafsīr al-Mauḍu'i: Dirasah Manhajiyah Mauduiyah* by al-Farmawi, *al-Insān fi al-Qur'ān by A*bbas Maḥmud al-Aqqad, etc.[97]

5. Interpretation style

In Arabic, the style / pattern comes from the word *alwān* which is the plural form of the word *launun* which means color. According to Wilson Munawwirr in the Arabic-Indonesian al-Munawwir dictionary, the word laun is a singular form and the plural is *alwān* which means color. It can also mean *an-nau' wa al-ṣinfu* which means kinds and types. Meanwhile, in the Big Indonesian Dictionary, the word style / pattern has 3 meanings, namely: flowers or pictures, types of colors in the basic colors, and lastly means character traits.[98]

In terminology, the style or pattern of interpretation means the specificity of an interpretation which is the impact of the tendency of a mufassir in interpreting the contents of the verses of the Qur'ān.[99] The style of interpretation means tendencies, thoughts and ideas that dominate a work of interpretation. It can also be understood as the variety, distinctiveness, special nuances that color an interpretation[100]

a. *Fiqh*i style

Is an interpretation whose tendency is to seek fiqh laws in the

Vol. 1, No. 2, (Januari-Juni 2015), p. 286

[97] Moh. Tulus Yamani, *Memahami Al-Qur'an Dengan*..., p. 276-277

[98] Abdul Syukur, *Mengenal Corak Tafsir Al-Qur'an*, in El-Furqonia, Vol. 1, No. 1, (Agustus 2015). p. 84

[99] Abdul Syukur, *Mengenal Corak Tafsir*..., p. 85

[100] Ummi Kalsum Hasibuan, Risqo Faridatul Ulya, Jendri, *Tipologi Kajian Tafsir: Metode, Pendekatan Dan Corak Dalam Mitra Penafsiran Al-Qur'an*, in Ishlah: Journal Ilmu Ushuluddin, Adab dan Dakwah, Vol. 2, No. 2, (Desember 2020), p. 242

Qur'ān verses. Interpretation books that use this style like *Ahkām al-Qur'ān* by al-Jassas (using mazhab Hanafi) and *al-Jāmi' lī Ahkām al-Qur'ān* by Abdullāh al-Qurtūbī (using madzhab Maliki), etc.[101]

b. *Falsafi* style

Namely interpreting the verses of the Qur'ān by using logic and philosophical theories that are radical and liberal. The examples of interpretation book for this style like *Tafsīr Mafāftih al-Gaib* by Fakhruddīn ar-Rāzī.[102]

c. *'Ilmī* style

This style is an interpretation of the verses of the Qur'ān by using a scientific approach or studying the Qur'ān verses which is oriented towards scientific theories. So the verse that interpreted is *kauniyyah* verses (natural verses). The book interpretatiom that using this style like *al-Jawāhir fī Tafsīr al-Qur'ān* by Thantawi Jauharri (1287-1358 H), and *al-Tafsīr al-'Ilmī Lī al-Āyat al-Kauniyyah fi al-Qur'ān* by Hanafi Ahmad, etc.[103]

d. *Sufi* style

Namely the interpretation of the verses of the Qur'ān using the understanding of Sufism. This style is divided into 2, namely *Sufi al-Nazhari*, namely interpretations compiled by adhering to the theory of Sufism which they hold and develop and *Sufi al-Isyari*, namely the interpretation of Qur'anic verses that try to interpret based on hidden signs and are only known to the Sufis when they do mysticism. Among the interpretation book that using this style like *Tafsīr al-Qur'ān al-'Aẓīm* by 'Abdullāh as-Tustarī, *Haqaiq al-Tafsīr* by al-'Alamah al-Sulamī,

[101] Abdul Syukur, *Mengenal Corak Tafsir*..., p. 86

[102] Ummi Kalsum Hasibuan, Risqo Faridatul Ulya, Jendri, *Tipologi Kajian Tafsir*…, p. 242-243

[103] Ummi Kalsum Hasibuan, Risqo Faridatul Ulya, Jendri, *Tipologi Kajian Tafsir*…, p. 244

etc.[104]

e. *Adabī Ijtimā'i* style

The definition of this interpretation can be described as an interpretation whose study focuses on connecting the Qur'anic texts with social reality and the systems that already exist in society. So the scope of the discussion includes the laws of the universe, social norms of society, also contains solutions for the Muslim community and the wider community.[105] The example for this style like *Tafsīr al-Manār* by Muḥammad 'Abduh, *Tafsīr al-Marāgī* by Aḥmad Musṭafa al-Maragī, *Tafsīr al-Qur'ān al-Karīm* by Muḥammad Syaltūt, etc[106]

f. *Tarbawī* style

The word tarbawī means something or is related to education. Then it can be understood that this style of interpretation is an interpretation that explores nuanced verses of Islamic teachings where this is related to developing and achieving educational goals, such as the story of Luqmān's advice to his son.[107] The example for this style like *Tafsir Tarbawi Mengungkap Pesan Al-Qur'an tentang Pendidikan* by Ahmad Munir[108], *Tafsir Ayat-Ayat Tarbawi Tafsir dan Kontekstualisasi Ayat-Ayat Pendidikan* by Ridhoul Wahidi[109], etc

g. *I'tiqādi* style

I'tiqād means belief or faith. namely the interpretation of the focus

[104] Ummi Kalsum Hasibuan, Risqo Faridatul Ulya, Jendri, *Tipologi Kajian Tafsir*…". p. 244

[105] Abdul Syukur, *Mengenal Corak Tafsir...*, p. 99-100

[106] Abd. Ghafir, *Sekilas Mengenal At-Tafsir Al-Adabi Al-Ijtima'i*, in Al-Ahkam, Journal Syariah dan Hukum, Vol. 1, No. 1, (Januari-Juni 2016), p. 30

[107] Abdul Syukur, *Mengenal Corak Tafsir...*, p. 96

[108] Ahmad Munir, *Tafsir Tarbawi Mengungkap Pesan Al-Qur'an tentang Pendidikan,* (Ponorogo: STAIN Ponorogo Press, 2007)

[109] Ridhoul Wahidi, *Tafsir Ayat-Ayat Tarbawi Tafsir dan Kontekstualisasi Ayat-Ayat Pendidikan,* (Yogyakarta: Trussmedia Grafika, 2016)

of the discussion is the issue of aqidah. For example like *Tafsīr al-Kasysyāf* by Zamakhsyarī[110]

C. The Theory of Expanding Universe

1. The definition of expanding universe theory

Theory is a unified and generalizable conceptual scheme from which a law can be derived[111] and can be called as reasoned approximation.[112] In other languages, theory can also be interpreted as a calculating tool for making predictions, a guide for organizing further research and a practical tool for carrying out technical controls. Meanwhile, in Ian G. Barbour's own view, there are four views in positioning theory in scientific studies: In positivism, theory is seen as a summary of data. In instrumentalism, theory is seen as a useful tool. Idealism views theory as a mental structure. And in realism, theory is a representation of the world[113]

While the expanding universe is a combination of the two words "expanding" can be called "developing" while "universe" mean "nature" or the "world". So it can be said that the expanding universe theory is a conceptual scheme in the basic formula with data showing the expansion of the universe (the physical world, matter and energy) that is currently expanding.

So this theory said that universe developed from the observed red shifts of celestial bodies, that the space between galaxies is expanding, so that they appear to recede from us at velocities that increase with their distance[114]

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[110] Abdul Syukur, *Mengenal Corak Tafsir...*, 96-97

[111] Islah Gusmian, dkk, *Mencari Kebenaran dalam Sains Kajian atas Gagasan Ian G. Barbour dalam Buku Issues in Science and Religion*, in Al-A'raf Journal Pemikiran Islam dan Filsafat, Vol. 11, No. 1, (Januari-Juni 2014), p. 40

[112] Islah Gusmian, dkk, *Mencari Kebenaran dalam…*, p. 43

[113] Islah Gusmian, dkk, *Mencari Kebenaran dalam…*, p. 45-48

[114] "*Definition of expanding universe theory* | Dictionary.com", https://www.dictionary.com/browse/expanding-universe-theory

The theory of expanding universe is a continuation or series of events after the theory of the creation of the universe which is most famous today, namely the Big Bang theory, which means that the theory of expanding universe is the main aspect that supports the Big Bang theory. The Big Bang theory is based on two pre-existing theories: Einstein's theory of relativity which states that there is a gravitational relationship between all matter in the universe; assumptions called the cosmological principle.[115]

The idea of the expanding universe theory first appeared in 1922 by a Russian physicist named Alexander Friedmann who based his research on Einstein's formula. His proposal of this idea says that the model of the universe is expanding, leading to the hypothesis that the universe started from the Big Bang.[116] Likewise in 1927, a Belgian astronomer and cosmologist who was also a priest named Abbe Georges Lemaitre formulated that the universe was started by a tremendous explosion that came from a small superatom. This theory explains the expansion of galaxies within the framework of Albert Einstein's theory contained in the general theory of relativity. Even though this idea originally came from Einstein, he found it difficult to accept besides being amazed by the idea[117]

So that in 1929, the expanding universe model gained observational support which made it truly credible as a scientific fact that made the scientific world experience an “intellectual awareness” that what they had believed so far was that the universe was static, in fact it was the opposite (dynamic). This was originally started by an American astronomer named Edwin P. Hubble (1889-1953) and Milton Humason

[115] Hudzaifah Ismail, *Kerajaan Al-Qur’an*, (Jakarta: Almahira, 2012), h. 146

[116] Taufiq Hidayat, *Teori Relativitas Einstein: Sebuah Pengantar*, (Bandung: ITB, 2010), p. 319-320

[117] Caner Taslaman, *Miracle of the Qur’an: Keajaiban Al-Qur’an Mengungkap Penemuan-Penemuan Ilmiah Modern*, (Bandung: PT Mizan Pustaka, 2010), p. 33

who conducted a study using his telescope on Mount Wilson, California in 1924. He and his colleagues conducted a study by improving measurement techniques galactic distances using his 100 inch and 200 inch telescopes which until 1929 he found as many as 29 galaxies.[118]

He conducted research on starlight in galaxies other than the Milky Way using the Doppler effect. He made observations of the spectrum of stars in another galaxy, which was named *Cygni61*[119] Later, through modern telescopes, it was discovered that the Milky Way galaxy, the galaxy inhabited by humans and various other living things, is not the only galaxy but one of several hundred thousand million galaxies in the universe. And humans live in a galaxy that is about a hundred thousand light years wide and rotates slowly

His research observed that the distance of the stars from Earth with a light source that is moving closer to the observer, the spectrum tends to be blue to purple. While those away from the observer tend to be red. This study provides an explanation that the light of the stars has been reduced, where the size of the red-shifted galaxy by the Doppler effect is not random, but is directly proportional to the distance of the galaxy from the observer. The meaning is that the twin stars *Cygni61* are shifting away from each other and moving away from Earth. The farther the galaxy is from Earth, the faster the motion is so that some have a speed of one hundred thousand kilometers per second (approximately one third the speed of light).[120]

In the 1940s, Fred Hoyle argued that if the Big Bang, which predates the expansion of the universe had really occurred, there must

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[118] Agus Purwanto, *Ayat-Ayat Semesta Sisi-Sisi Al-Qur'an yang Terlupakan*, (Bandung: PT Mizan pustaka, 2008), p. 303

[119] Ilhamuddin, *Reinterpretasi dan Sinergitas Teori Penciptaan Alam,* in Journal Miqot, Vol. 38, No. 2 (Juli-Desember 2014), p. 298

[120] Theo Jaka Prakoso, *Sainstifikasi Ayat-Ayat Kosmos Asal-Usul dan Kepunahan Alam Semesta*, in Journal UIN Alauddin, p. 21-22

have been a remnant of the explosion and he asked for its “fossils” to be shown.[121]

The findings are tested again and again. In 1950, a high-magnification telescope, the largest instrument of its kind, was installed on Mount Palomar, United States. The new test results confirm Hubble's observations. The measurements made show the fact that the creation of the universe occurred about 10-15 billion years ago through the process of the Big Bang[122]

Still in the early 1950s, George Gamow and his student Ralph Alder investigated the possible consequences of the expanding universe model and predicted the existence of isotropic fossil radiation which is the remnant of the Big Bang, as argued earlier by Fred Hoyle. Gamow calculated that the radiation would fill an increasing volume of space in all directions so that the radiation was diluted due to the cooler black body emission temperature[123]

Then in the early 1960s, astronomers discovered quasars (quasars, quasi, stellar objects) through radio observations. The object is like a point source which is like a powerful radio transmitter and has spectral characteristics with a very large red shift. So it can be concluded that quasars are objects that come from very far away and can be said to occupy the boundary areas of the universe that humans can still observe. Five years later, Arno Penzias and Robert Wilson[124] who are two researchers at the Bell Telephone Company, accidentally detected

[121] Caner Taslaman, *Miracle of the…*, p. 39
[122] Caner Taslaman, *Miracle of the…*, p. 34
[123] The Big Bang theory explains that at the beginning of the creation of the universe, matter (fermions) and radiation (bosons) were in thermal equilibrium, at very high temperatures and for a short time. The expansion of the universe then causes the fluid of the universe which was originally very dense and hot to become diluted and cooled to a temperature and free electrons can meet with nucleons to form atoms. The residual radiation produced during the "explosion" must still exist in the universe, but at a very low temperature. Taufiq Hidayat, *Teori Relativitas Einstein*…, p. 370
[124] Taufiq Hidayat, *Teori Relativitas Einstein*…, p. 350

uniform microwave radiation which is thought to be residual thermal energy throughout the universe at a temperature of 3 kelvins, or the equivalent of a temperature of 3 degrees Celsius above absolute 0 point[125] which was previously predicted by Gamow and accurately calculated by a group from Princeton University led by Robert Dicke. The radiation was found to be isotropic in all directions in what is now known as "cosmic microwave background radiation".[126] Therefore, they were both awarded the Nobel prize in 1965[127]

In the next era until now where the technology is advanced enough to observe outer space phenomena, the radiation observations have been confirmed with very high accuracy through observations from space carried out by the COBE (Cosmic Background Explorer) satellite starting in the late 1980s and continuing with the WMAP (Wilkinson Microwave Anisotropy Probe) satellite in the 2000s which can detect even small unisotropies in the background radiation.[128]

Einstein's general relativity provides the mathematical and physical foundation for cosmology, for studying the structure of the universe as a whole. Einstein built a static universe model and added the cosmological constant to his field equations to accommodate the "belief" at the time that the universe could not possibly expand. If Einstein had never done that, then Einstein should have predicted the universe was expanding ten years faster than Hubble confirmed his observations that the universe was indeed expanding.[129] Einstein honestly admitted that the forced model by introducing the cosmic constant was considered his biggest mistake, as he famously said, *"the biggest blunder of my life."*[130]

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[125] Caner Taslaman, *Miracle of the…*, p. 34
[126] Taufiq Hidayat, *Teori Relativitas Einstein*…, p. 350
[127] Caner Taslaman, *Miracle of the…*, p. 40
[128] Taufiq Hidayat, *Teori Relativitas Einstein*…, p. 350-351
[129] Taufiq Hidayat, *Teori Relativitas Einstein*…, p. 349
[130] Agus Purwanto, *Ayat-Ayat Semesta…*, p. 305

Stephen Hawking in his book entitled "A Brief History of Time" mentions "the scientific discovery that nature is constantly evolving is an intellectual revolution of the 20th century"[131]

From the results of these studies, scientists around the world until now agreed that the universe inhabited by humans and various other living things came about from nothing and not by chance (suddenly existed). Over the past century, a series of experiments, research, observations and calculations have been carried out using the latest technology, which in the end they concluded without hesitation, saying that the universe had a beginning. They have confirmed that the universe is in a state of continuous expansion.[132]

As for the meaning of expanding here, the meaning is that at first the universe originated from a single super small point that has zero volume with infinite density. It can be analogized that if time in this world is made backwards, aka time reversed, which previously was forward, backwards until it reaches the starting point of the initial formation of the universe, then it will be found that the universe started from a single point.[133]

That “thing” contains all the matter with infinite density and energy in the universe and has a level of heat that cannot be measured by human reason. The state at that time, which scientists call a singularity, is something solid that emerged from nothing. In rationality, scientists cannot explain the exact conditions that occurred before the Big Bang[134] Due to “spiritual” reasons that cannot be defined, this thing then explodes with super violence which makes it spread in all directions in the sense that it expands.

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[131] Zakir Naik, *Miracles of Al-Qur’an & As-Sunnah*, (Solo: Aqwam, 2015), p. 23

[132] Maman Supriatman, *Kosmologi Islam: Menyingkap Rahasia Penciptaan*, (Bandung: PT Remaja Rosdakarya, 2020), p. 32

[133] Maman Supriatman, *Kosmologi Islam: Menyingkap…*, p. 32-33

[134] Ridwan Abdullah Sani, *Al-Qur;an dan Sains*, (Jakarta: Amzah, 2020), p. 51

According to the Big Bang theory, the universe expanded very rapidly in the first microsecond. A single force occurred at the beginning of the Big Bang and developed into 4 forces as they are known today namely the gravitational force, the electromagnetic force, the strong nuclear force and the weak nuclear force. The universe developed from a material consisting of protons, electrons and neutrons that are in a sea of radiation with a very high temperature. As nature expanded, the temperature of matter slowly decreased so that a lot of helium, deuterium and other light elements were formed in the universe. This condition is in accordance with the reality that occurs in the universe which, as discussed in the previous discussion, states that this fact can be proven by radiation measured by NASA's spacecraft called the Cosmic Background Explorer (COBE) which shows the compatibility of the radiation calculated by the Big Bang theory.[135]

The actual condition when the Big Bang occurred was the creation of space and time from a singularity condition where there was nothing, which means starting from a dimensionless point. The first creation is energy and photon particles. Photon particles form protons, neutrons and electrons as well as other particles that are not known (classified in science as dark matter). From protons and electrons hydrogen is formed as the first element or the main basic ingredient for forming stars and other elements are formed from the process of nuclear fusion in stars. From this nuclear fusion reaction, heavy elements such as carbon, oxygen, nitrogen and iron are formed.[136]

Basically, the Big Bang was not an explosion in space, but the process of expanding the universe. By using a simple Doppler effect calculation, it can be estimated how long the universe has been expanding

[135] Ridwan Abdullah Sani, *Sains Berbasis Al-Qur'an*, (Jakarta: PT Bumi Aksara, 2015), p. 171

[136] Lajnah Pentashihan Al-Qur'an, *Penciptaan Jagat Raya*…, p. 22

(the age of the universe), which is about 13.7 billion years.[137]

This is the most widely accepted theory among scientists regarding the process of creation and development of the universe. This nonstatic or expanding universe model not only has a strong theoretical basis, but is also supported by a very strong empirical basis and is now often and widely referred to as the standard big bang cosmological model.[138]

It's called the Big Bang because the explosion was a very powerful and supermasif that created the expansion of the universe and all the contents contained in it to date. As explained in the previous two paragraphs that the Big Bang is not an explosion in a position in space. However, it is a process where space and time were created, which initially started from a point that had a very high density and temperature. Mathematically, the matter-radiation density must go to infinity because the "radius" of the universe at that time was very small or towards zero. In other words, it is called the initial singularity problem which cannot be explained by general relativity alone. In this epoch, which is called the Planck era, the temperature of the universe is around ~10^{32} ~K with a density reaching 10^{93} g and a universe radius of about cm^{-3} (or called the Planck length).[139]

This theory was reinforced by subsequent theories, namely the theory of the expanding universe, which is the fact that the expansion of the universe is proven by the stability of the hot temperatures found at the ends of the observable universe, and the distribution of elements evenly in all places also the image of the universe's smoke at the edge of the observed universe.[140] The smoke is the remnants of the Big Bang

[137] Maman Supriatman, *Kosmologi Islam: Menyingkap…*, p. 32
[138] Taufiq Hidayat, *Teori Relativitas Einstein*…, p. 351
[139] Taufiq Hidayat, *Teori Relativitas Einstein*…, p. 375
[140] Nadiah Thayyarah, *Buku Pintar Sains dalam Al-Qur'an Mengerti Mukjizat Ilmiah Firman Allah*, (Jakarta: Zaman, 2013), p. 335

explosion which is defined as a substance in which most of the material is gas and some is solid particles, some are dark and some are hot[141]

The plume of smoke then rotates, agglomerates, condenses and compresses with the force of gravity as an element that binds and shrinks it proportionally and not excessively so as to form planets, stars and other celestial bodies such as the Sun, Earth, other solar system planets and celestial bodies outside the solar system. If gravity binds and unites the stars collapse, it will become a black hole[142]

The content of heavy elements in the composition of stars is one of the "body element" of stars. Stars that contain a lot of heavy elements mean that the star is a "young generation" that uses the material left over from the explosion of old stars. Earth-forming material is also believed to have come from interstellar dust and gas that came from star explosions in the past. So if we trace the chronology of creation, the whole of universe came from one unit.

After the Big Bang and Expanding universe, the first stars appeared about 400 million years later. Then various celestial bodies such as galaxies, planets and other stars were created in subsequent developments so that their creation did not take place all at once or in one stage, but through an evolutionary process. Namely a star is born, then grows old and finally dies. Stars end their lifetime by exploding which is called a nova, supernova or hypernova. As a result of the explosion, the surrounding interstellar cloud contains more and more heavy elements. These inter-nebula clouds are often termed nebulae. The longer the cloud gets lumpy and gathers with gravity as its main component which makes it a star again. Stars are born and die and the rest of the explosion gathers into stars again, this process continues until the universe disintegrates. In the language of the Qur'ān, this continuous process is called "perfecting"

[141]Nadiah Thayyarah, *Buku Pintar Sains*…, p. 336
[142] Caner Taslaman, *Miracle of the…*, p. 50-51

in the sense that the universe does not occur once, but continues to process, not stopping after the creation of the Earth.[143]

Empirical scientists state that the process of expansion of the universe cannot possibly continue indefinitely (forever). This is due to the fact that the process is the result of the first explosion. If the development of nature at this time begins to slow down compared to in its early days, there will come a time when the driving force of the explosion (contra-gravity) and the force of gravity become balanced. Then, when the counter-gravity force weakens, what happens is the gravitational force will begin to unite the universe once again into a single celestial body, just like the single small object that existed in the early days before the Big Bang. This theory is what scientists call "The Big Crunch Theory."

2. Responses of scientists and scholars about the expanding universe theory

Scientists and scholars before the 1920s had different views regarding the theory of the expanding universe because at that time, science and technology were still in the development stage and were not yet sophisticated enough to be used to explore outer space so that the fact that the universe was expanding was still only a possible hypothesis. right and can also be wrong. They are partly on the side that accepts and partly on the side that rejects the theory.

Likewise, the argument explaining this fact contained in the Qur'ān Sūrah Aż-Żāriyāt verse 47 is in the form of a general explanation which textually confirms that it is Allah who built the sky with His power and He (also) has the power to expand it.

Quraish Shihab argues about Sūrah Aż-Żāriyāt verse 47 with the

[143] Lajnah Pentashihan Al-Qur'an, *Penciptaan Jagat Raya*…, p. 25-26

following explanation: through this verse, Allah SWT states that We have built the sky, that is, We created it with "hands," Our mighty power and strength and or based on Allah's bestowal blessings. overflow. Truly We are truly All-embracing in Our power without anything blocking Him or indeed We are truly expanding it.[144]

Then in this interpretation, he explained that the meaning of "*hand*" in the verse does not mean a hand like humans or animals have. Because Allah SWT is the Holy of Holies (*mukhālafatu lil ḥawādiśi*). So that the meaning of His "*hand*" can be interpreted as His power and grace.[145] In another of his books it's explained that the word (اَيْدٍ) *ayd*(*in*) is the plural of the word (يَد) *yad* or hand. Many scholars understand it in the sense of power and some understand it in the sense of favors. Indeed, the Arabic language uses the word *yad* or hand in a *majazi* way with the meaning of power or favor, so the true meaning is not meant here. The two *majazi* meanings can be the meaning of the verse above. Allah is the Extensive in His power, there is nothing that limits it except for something which in itself is impossible to exist, such as manifesting two Gods or the small one is bigger than the big one. He is also the Most Extensive of His favors, so that there is not a single being that does not receive it. And no matter how He bestows it on every being, what is taken away is like a drop from a vast ocean.[146]

And about expansion, it can be understood by the accumulation there of millions of stars and other celestial bodies which humans cannot count, even though humans use their whole life to count them. Meanwhile for scientists, the expansion of the sky is understood as a universe that is

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[144] M. Quraish Shihab, *Al-Lubab Makna, Tujuan, dan Penjelasan dari Surah-Surah Al-Qur'an* (Tangerang: Lentera Hati, 2012), p. 57

[145] M. Quraish Shihab, *Al-Lubab Makna…*, p. 58

[146] M. Quraish Shihab, *Tafsir al-Mishbah Pesan, Kesan dan Keserasian Al-Qur'an*, (Jakarta: Lentera Hati, 2002), p. 351

continuously expanding which is known to scientists as the theory of expansion. According to this theory, nebula outside the galaxy we live in are moving away from us at different speeds. Even the celestial bodies in one galaxy are moving away from each other. That, according to them, is the meaning of Allah SWT, the Most Extensive of this universe.[147]

Whereas Sayyid Qutb interpreted it slightly differently, he emphasized more on the structure of the sky and the vastness of the sky with another meaning. In his commentary "*Tafsīr Fī ẓilālil Qur'ān"* explained: the word "*aidi*" means strength. That power is clearly visible from the astonishing, solid and harmonious building of the sky. That is, the power is indicated by the word *as-Samā'*, both what is meant by the sky is the place where stars and planets circulate as well as a collection of various collections of stars which are termed orbits that have hundreds of millions of stars. Or what is meant by that power is one of the layers of the various layers in space where stars and planets are scattered. Or what is meant by the sky is not as disclosed earlier.[148]

The vastness is also evident where the stars have an astonishing size and number in the millions. The stars in the sky cannot be thought of as scattered balls. Maybe the word "broad" implies another meaning, namely with regard to the place where sustenance is stored, which was previously said to be in the sky (Srah Aż-Żāriyāt verse 22), although in the context of the verse above, the sky is only a symbol to show the sustenance that is on Allah's side. However, the expression of the Qur'ān provides a certain shade which can be seen that this shade is meant by the expression to address human feelings in an inspirational way.[149] This is also not much different with al-Muyassar interpretation that the meaning of the verse is Allah SWT who has raised the sky, leveled it, and

[147] M. Quraish Shihab, *Al-Lubab Makna…*, p. 58

[148] Sayyid Quthb, *Tafsir fi zhilalil-Qur'an di bawah naungan Al-Qur'an jilid 11*, (Jakarta: Gema Insani, 2004), p. 47

[149] Sayyid Quthb, *Tafsir fi zhilalil…*, p. 47

strengthened its building and He is also the one who has expanded it[150]

In the past when science and technology was still at its embryonic stage, verse 47 of sūrah Aż-Żāriyāt was sufficient to the extent that it was believed to be true because the Qur'ān is the word of God, the creator of the universe, who has built the heavens so vast, with such beauty. So the statement in the verse cannot be wrong. If there is an error in interpreting the Qur'ān so that it contradicts scientific facts, then it is not the Qur'ān that contains wrong and misguided information, but it is humans who misunderstand or interpret the message that Allah has given. Because Allah, who sent down the Qur'ān, is surely All-Knowing, both what was past, what is now and what is to come. His knowledge encompasses everything so that it is impossible to be wrong, forget or miss anything that happens in the universe and all realities that are not yet known to humans.

اَللّٰهُ الَّذِيْ خَلَقَ سَبْعَ سَمٰوٰتٍ وَّمِنَ الْاَ رْضِ مِثْلَهُنَّ ۗ يَتَنَزَّلُ الْاَ مْرُ بَيْنَهُنَّ لِتَعْلَمُوْٓا

اَنَّ اللّٰهَ عَلٰى كُلِّ شَيْءٍ قَدِيْرٌ ۙ وَّاَنَّ اللّٰهَ قَدْ اَحَا طَ بِكُلِّ شَيْءٍ عِلْمًا

Meaning:

"Allah is the One Who created seven skys ˹in layers˺, and likewise for the earth. The ˹divine˺ command descends between them so you may know that Allah is Most Capable of everything and that Allah certainly encompasses all things in ˹His˺ knowledge. (Sūrah aṭ-Talaq verse 12)

It's certain that as a believing Muslim it is obligatory to believe in him without the slightest doubt about it. Over time, this belief based on strong faith in *Rabbul 'Ālamīn* found a point of relief when it was discovered by the research and observations of Edwin Hubble through his telescope that the galaxies inhabited by humans turned out to be moving away from other galaxies. Likewise, one galaxy to another galaxies

[150] Aidh al-Qarni, *Tafsir Muyassar*, (Jakarta: Qisthi Press, 2007), p. 188

moves away with a very fast movement, this indicates that the universe is expanding at any time and must also have a starting point where previously all the expanding matter and energy gathered into a single unit with a very high density congested

In the end, scientists who previously thought that the universe was in a fixed state, static and had no beginning, inevitably accepted this fact as a scientific fact. And for scientists who really believe in or support this theory from the start, they will be aware and have an open mind that this universe had a beginning, of course, that beginning could not have happened by chance without someone making it happen. So there must be a "spiritual" figure or influence that gave rise to it and this figure must have unlimited power and be beyond the reach of space and time.

As for the religious scholars and Muslims, this will further increase their faith and love for Allah whose word is never wrong so that one day the truths of the Qur'ān will be revealed one by one. A believing Muslim will meditate and think about it that all of this (the universe and everything in it) is proof of Allah's infinite power, the laws of physics and all the knowledge created by humans.

وَلِلّٰهِ مُلْكُ السَّمٰوٰتِ وَا لْاَ رْضِ ؕ وَا للّٰهُ عَلٰى كُلِّ شَيْءٍ قَدِيْرٌ (١٨٩) اِنَّ فِيْ

خَلْقِ السَّمٰوٰتِ وَا لْاَ رْضِ وَا خْتِلَا فِ الَّيْلِ وَا لنَّهَا رِ لَاٰ يٰتٍ لِّاُولِى الْاَ لْبَا بِ (١٩٠)

الَّذِيْنَ يَذْكُرُوْنَ اللّٰهَ قِيَا مًا وَّقُعُوْدًا وَّعَلٰى جُنُوْبِهِمْ وَيَتَفَكَّرُوْنَ فِيْ خَلْقِ السَّمٰوٰتِ وَا لْاَ رْضِ

ۚ رَبَّنَا مَا خَلَقْتَ هٰذَا بَا طِلًا ۚ سُبْحٰنَكَ فَقِنَا عَذَا بَ النَّا رِ(١٩١)

Meaning:

"And to Allah belongs the dominion of the heavens and the earth, and Allah is over all things competent (189) Indeed, in the creation of the heavens and the earth and the alternation of the night and the day are signs for those of understanding (190) Who remember Allah while standing or

sitting or (lying) on their sides and give thought to the creation of the heavens and the earth, (saying), "Our Lord, You did not create this aimlessly; exalted are You (above such a thing); then protect us from the punishment of the Fire.(191)" (Āli 'Imrān verse 189-191).

Although, using scientific tools and scientific evidence, *mufassir 'ilmī* can only assume that this verse indicates an expanding universe theory, which is in accordance with the context of today's modern science, because as discussed in the beginning, the true meaning of the verse is actually (implied) only God knows.

This is because there are many interpretations of this verse. In the context of scientific interpretation this verse indicates the expanding universe theory. Meanwhile, in another context, this verse means the breadth of God's love, it can also mean the extent of God's power as well as the expanding universe, and so on.[151]

D. Ian G. Barbour and his typology

1. Biography

Ian G. Barbour, whose full name is Ian Grame Barbour, is an American scientist and scholar who is engaged in two fields at once, namely science and religion. Born in Beijing, China in 1923. His father is a geologist from Scotland while his mother is from America.[152] His father is also a member of the Presbyterian Church while his mother is a member of the Episcopal church. The two met in Edinburgh Scotland and soon after married. His parents moved to China again to teach at Yenching university where his father taught geology while his mother taught religious education.[153]

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[151] Towards Eternity – Indonesian, 2021, *Apakah Sains Dalam Al-Qur'an itu Benar*, accessed on 17 Juli, 2023, https://youtu.be/ASJrj_ae28g

[152] Khoirul Warisin, *Relasi Sains dan Agama Perspektif G. Barbour dan Armaedi Mazhar*, in Rahmatan Lil Alamin Journal of Peace Education and Islamic Studies, Vol. 1, No. 1, (Juli 2018), p. 16

[153] Waston, *Hubungan Sains dan Agama Refleksi Filosofis atas Pemikiran Ian G. Barbour*, in Profetika Jurnal Studi Islam, Vol. 15, No. 1, (Juni 2014), p. 78

He is known as one of the initiators of contemporary dialogue between science and religion. His dedication and broad contribution in this field can be said to be far greater than the contributions of other experts who are still writing today. Since his earliest writings, Barbour has paid serious attention to the shape of the proper relationship between science and religion because of his constant focus on these issues.[154] Proof of his seriousness that he is known as a contemporary figure who tries to dialogue science and religion are the four typologies he offers, namely: Conflict, Independence, Dialogue and Integration.

Nevertheless, Barbour is one of those who think that science and religion do not kill each other nor are they contradictory but have integrity. In this case, he is more inclined to the realm of dialogue and integrity. These two things are based on a very important basic premise, in other words, that science and religion provide a descriptive view of nature.[155] As in his latest book report, "*When Science Meets Religion: Enemies, Strangers, or Partners ?*" (2000) of the four typologies, he stated that he was very sympathetic to the Dialogy and Integration approach. Although in previous research in *Religion in an Age of Science* (1990), he positioned himself on the integration approach[156]

2. Education and career

Barbour's educational and career journey is very long. The year 1940 was the year when he first started this experience, at which time he entered Swarthmore University as an engineering student but moved to the field of physics because of the theory and experiments that interested him to know. The experience of being a laboratory assistant to his admiration for a skilled young physics teacher strengthened his choice.

[154] Waston, *Hubungan Sains dan*…, p. 77

[155] Fitri Meliani, Nanat Fatah Natsir, Erni Haryanti, *Sumbangan Pemikiran Ian*…, p. 676-677

[156] Damanhuri, *Relasi Sains dan Agama Studi Pemikiran Ian G. Barbour*, in Refleksi, Vol. 15, No. 1, (Januari 2015), p. 33

Among the humanities courses he studied was philosophy of religion which he thought was uninspiring because it only discussed classical divinity arguments. But one summer time working at Quaker was an important experience for her because there was an intimate environment, meditation and discussion or sharing.[157]

Graduated from there in physics with a B.Sc. After that he continued his Masters at Duke University and earned his M.Sc in 1946. Then Barbour continued his education at the University of Chicago. Here he became an assistant to Enrico Fermi where physics had taken up most of his time. The Ford Foundation is offering Barbour's department a scholarship to study for a year, outside of the discipline he has been pursuing.[158]

Graduated from the University of Chicago in 1950 with a Ph.D in physics. His educational journey did not stop there. The first field of physics he took was high energy, but for several years he taught physics, Barbour as a graduate of a Christian school, then became interested in studying philosophical and religious issues[159]

Then from there, he continued his education at Yale's Divinity School[160] by studying theology and ethics and feeling lucky to be able to study with H. Richard Niebuhr, Roland Bainton, Robert Calhoun and others. He was satisfied and pleased with their lectures to the extent that he put forward a proposal for his return to be postponed a year later because he believed that his choice could reflect his intelligence and interest in a religious context as a response to God's call and human needs.

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[157] Waston, *Hubungan Sains dan*…, p. 77

[158] Waston, *Hubungan Sains dan*…", p. 77

[159] Selvia Santi, *Relasi Agama dan Sains Menurut Seyyed Hossein Nasr dan Ian G. Barbour (Studi Perbandingan Pemikiran Tokoh Islam Kontemporer)*, Skripsi, (Banjarmasin: IAIN Antasari, 2015), p. 53

[160] Husnul Hidayah, Deni Iriyadi, Iffan Ahmad Gufron, *Relasi Sains Dan Agama Dalam Perspektif Ian Graeme Barbour*, in Aqlania: Journal Filsafat dan Teologi Islam, Vol. 13, No. 1, (Januari-Juni 2022), p. 27

Therefore, he really enjoys this process. Moreover, he fully understands that the position of scientists is highly respected in the academic world and their opinions are heard and taken into account in educational, ethical and religious issues.

He also agreed with the Reformed Church's belief that all useful knowledge can be used to serve God and human needs. This made him more interested and comfortable so that he dedicated part of his life to studying and teaching religious studies. Taking advantage of two summer vacations in Union, New York, he eventually graduated from Yale University's Divinity School in 1956 with a B.Div degree in theology.[161]

Carleton University in Minnesota offered Barbour a job teaching part time teaching physics and half teaching religion at the Philosophy faculty in addition to teaching a variety of important subjects, mentoring student religious groups, and continuing cosmic ray experiments. Because of this, he was put in a depressed and disappointed situation and condition because his first five years there made him unable to accompany his children who were still young at that time.[162]

Barbour was married to Deane Kern from 1947 until his death. He suffered a stroke on December 20, 2013 at his home, Northfield, Minnesota and remained in a coma at Abbot Northwestern Hospital until his death which occurred four days later on December 24, 2013.[163]

3. His works

Most of his life is dedicated to studying and discussing the problem of the relationship between science and religion, resulting in several works including:

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[161] Husnul Hidayah, Deni Iriyadi, Iffan Ahmad Gufron, *Relasi Sains Dan*…, p. 27

[162]Selvia Santi, *Relasi Agama dan*…, p. 54-55

[163] Achmad Bisri, *Membaca Ayat-Ayat Al-Qur'an dengan Perspektif Ian G. Barbour*, in Journal Teologia, Vol. 26, No. 1, (Januari-Juni 2015), p. 76

- *Issues in Science and religion* (1966)
- *Mythos, Models And Paradigms* (1974)
- *Religion in an Age of Science* (1990)
- *Ethics in an Age of Technology* (1993)
- *Religion and Science: Historical And Contemporary Issues* (1997)
- *When Science Meets Religion: Enemies, Strangers, or Partners ?* (2000)[164]

His works above can be considered as mandatory reading books for researchers on the relationship between religion and science. Not only because of the depth of the references, but also because of the completeness and effectiveness of the method. The theme of science and religion is very broad and multidisciplinary in scope because it at least covers several branches of science, history and philosophy of science, as well as the history of religion and the study of religion or theology in general.[165]

Some of the impressions that emerge from his works include that of Sallie McFague, a female theologian who wrote "*Metaphorical Theology: Models of God in Religious Language*" (1982) and "*The Body of God: An Ecological Theology*" (1993), she said that "Barbour's work that allows me to work." He further adds that for theologians, Barbour is a friend who teaches the latest developments in science and their metaphysical implications. As for scientists, he demonstrated the theological relevance of scientific theories.[166]

4. Ian G. Barbour's typology of the relationship between religion and

[164] Damanhuri, *Relasi Sains dan*…, p. 32
[165] Damanhuri, *Relasi Sains dan*…, p. 33
[166] Damanhuri, *Relasi Sains dan*…, p. 33

science

As previously explained, he divided the relationship between religion and science into four typologies, namely:

a. Conflict

This typology positions religion as a term that is completely different and even contrary to science or knowledge and technology[167] where this typology is held by scientific materialist groups and biblical literalism groups. According to the view of scientific materialism, religious belief is unacceptable because religion is not public data that can be tested by experiment and criteria for coherence, comprehensiveness and expediency. Knowledge is objective, open, general and progressive in nature, while religious traditions are considered to be subject, closed, parochial, uncritical and very difficult to change. The group of biblical literalists argues that the literal interpretation of the scriptures says that scientific theories such as the theory of evolution inflate materialist philosophy and undermine God's moral commandments.[168]

This model holds that religion and science are two things that are not only different, but completely opposite which, as a consequence, one cannot support a scientific theory and a religious belief at the same time. Because religion cannot prove its beliefs and views clearly while science is able to prove it. Religion believes in God without the need to show concrete proof of its existence, while science demands proof of all hypotheses and theories with reality[169]

This typology can be found in various practices of social life in diversity, especially in new cases that do not yet have a relevant solution

[167] M. Anugrah Arifin, *Islam & Sains Paradigma Integrasi*, (Yogyakarta: Deepublish, 2018), p. 9

[168] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 16

[169] Syarif Hidayatullah, *Agama dan Sains*…, p. 120

because they are based only on classical fiqh legal products. and a small number of scientists where they generally reject evolution because it is considered to negate the role of God in creation[170]

b. Independency

This typology said that science and religion have different domains and aspects so that between the two there is no need for a relationship let alone competition, because according to this view, both provide or serve completely different functions. The difference is that science is based on the issue of how things work relying on data and objects, while religion is based on values and greater meaning for individual life. These two types offer complementary offers about the world, meaning views that do not exclude one another.[171]

Barbour reveals the views of Kart Bath, a biologist Stephen Joy Guld regarding independence according to him that God is a transcendence which is different from the others and is not known except by self-disclosure. Religious belief is completely dependent on God's will, not on the will of human discovery as science. Scientists are free to do whatever they want without the involvement of theology. Science is built on human observation and reasoning, while religion is based on Divine revelation, so according to this view religion and science have different areas so there is no need to make efforts to dialogue between the two. It can be concluded that this view is a way to separate the conflict between religion and science. The difference is basically divided into the following:

- Science talks about objective, general and repetitive data, while religion talks about the existence of order and beauty

[170] Syarif Hidayatullah, *Agama dan Sains*…, p. 120

[171] Jendri, *Hubungan Sains dengan Agama Perspektif Pemikiran Ian G. Barbour*, in Tajdid, Vol. 18, No. 1, (Januari-Juni 2019), p. 66

- Science asks “how” questions while religion asks “why” questions
- The basis of scientific authority is logical conference and experimental conformity, while religion originates from God
- Science is predictive and quantitative, while religion tends to use symbolic and analogical language because of the inherent nature of God (transcendent)[172]
- There are two languages and two different functions. Scientific language serves to predict and control (scientific theory) while religious language offers a way of life and a set of guidelines and encourages adherence to certain moral principles.[173]

This separation of regions is not only motivated by the desire to avoid conflict, but also by the desire to acknowledge the different characters of each of these areas of life and thought. If the analogy is that they have jurisdiction, science and religion will tend to be selfish so they don't interfere with others. The two work in so different ways that one cannot judge the other by their own standards[174]

In science, scientific language primarily functions for prediction and control whereas theory is used for gathering data, finding order in the world of observed phenomena and producing technological applications. The field of science explores limited issues about natural phenomena so don't expect to perform a function outside of it like offering a worldview, philosophy of life or an overarching set of ethical norms.[175]

Barbour himself said that this typology was a good start and an

[172] Jendri, *Hubungan Sains dengan…*, p. 66-67
[173] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 17
[174] Waston, *Hubungan Sains dan*…, p. 81
[175] Waston, *Hubungan Sains dan*…, p. 81

effective strategy to respond to those who think that conflict between the two is impossible to avoid. Religion has distinctive methods, problems and functions that are different from science. But he warns that we should not be satisfied with these views as if they were two different languages about the same world. If we seek a coherent interpretation of all experience, we cannot avoid seeking a more unified view of the world. He further stated, if science and religion were truly independent, the possibility of conflict could be avoided but would destroy the opportunity for constructive dialogue between the two. We live life not as a loose part. But to experience life as an interrelated whole even though we build various disciplines to study its different aspects.[176]

c. Dialog

This third typology states that there is a relationship between religion and science so that the two can complement each other, discuss, encourage and influence each other to solve all problems in life. This view states that there is a mutually communicative relationship that builds each other so that the two can be in dialogue with each other and even support one another. In relation to this, Albert Einstein, a prominent physicist who represents this relationship, said "*religion without science is blind, science without religion is lame*."[177] A Catholic theologian, David Tracy argues that there is a religious dimension in science that the intelligibility of the world requires the highest rational foundation originating from classical religious texts and the structure of human experience, Ian G. Barbour (2002: 76).[178]

This model intends to find similarities or comparisons methodically and conceptually between the two so that similarities and differences are found between them. This effort is carried out by looking

[176] Waston, *Hubungan Sains dan*…, p. 81-82
[177] Dita Handayani, *Integrasi Agama dan Sains Menurut Ian G. Barbour dan Sumbangannya terhadap Kajian Keislaman*, in Tsamratul Fikri, Vol. 16, No. 1, (Juni 2022), p. 4
[178] Khoirul Warisin, *Relasi Sains dan*…, p. 17

for concepts in religion that are analogous, similar and comparable to concepts in science. According to Barbour, the similarities between the two can occur in two ways, namely methodological similarities and conceptual similarities. Methodological similarities can occur such that in science is not entirely objective and religion is also not entirely subjective. There is no absolute difference between the two, because scientific data as the basis of science which is considered as a form of objectivity, actually also involves elements of subjectivity. The subjectivity of science can occur in the theoretical assumptions used in the process of selecting, interpreting data and reporting. The methodological similarities lie in the principle of the relationship between theory and experience. The purpose of this dialogue model is for religion and science to broaden each other's insights and knowledge about the natural organs (Billa, 2011: 295). Adherents of this view say that there are actually meeting points between the two so that it is very possible to carry out dialogue to see if certain scientific theories can inspire beliefs in religion, and vice versa (Bagir, 2006: 4)[179]

d. Integration

This typology is the most supportive typology that between science and religion, both of them synergize in building an ideal world and solving the problems of business life, namely by finding meeting points on issues that are considered contradictory between the two.[180] This typology is divided into 3 parts, namely natural theology, theology of nature and systematic synthesis, with the following explanation:

1. Natural theology

This version of integration explains that God's existence can be known through reasoning done by observing natural designs, which will

[179] Syarif Hidayatullah, *Agama dan Sains*…, p. 121-122
[180] Syarif Hidayatullah, *Agama dan Sains*…, p. 122

make us more aware of Him. The analogy in this integration is expressed as said by Thomas Aquinas that some characteristics of God can only be known through revelation in the scriptures, but the existence of God itself can be known only by reason. One form of the cosmological argument asserts that every event that occurs in the universe must have a cause, so whether we like it or not, we must acknowledge a first cause if we want to avoid endless cycles. Another form of the argument holds that all chains of natural causes (limited or unlimited) are contingent and may not have been so before. It depends on a being that exists definitely. Aquinas' teleological argument (from *telos*, in Greek mean purpose) departs from order from intelligibility as a general feature of the universe, but provides evidence for natural design.[181]

This version of integration has a strong influence in the multi-religious world because it departs from scientific data that has the potential to reach agreement among various cultures and religions in the world.[182] The meaning of this version in summary can be understood that science and religion actually provide strong evidence for the existence of God where science provides a scientific statement that it is impossible for everything that exists in this universe to start from nothing or suddenly exist without something who started it, so there must have been an initial cause where in religion the 'original cause' is called “God”

Some contemporary philosophers who are defenders of this version of integration are Richard Swinburne with his confirmation theory in the philosophy of science as well as astrophysicists with the anthropic principle in their cosmology.[183]

However, whatever scientists say about this version that the narration leads to a conclusion by using the universe and all its order as a

[181] Waston, *Hubungan Sains dan*…”, p. 82
[182] Waston, *Hubungan Sains dan*…”, p. 82
[183] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 20

tool to find out the grand design behind all of this, in fact it has long been explained in the Qur'ān, where there are many verses of the *kauniyyah* about nature guides people to know that there is a creator of all of this, the Lord of all the worlds, Allah SWT. Likewise in verse 53 of Fuṣṣilat's sūrah that He will show signs of His Being through human observation and research about the universe and themselves. It's just that these activities are not included in Islamic theology but only as a means to obtain guidance about God and to obtain the spiritual value of religious teachings.[184]

2. Theology of nature

This version does not depart from science as the previous version, but departs from religious traditions and historical revelations. Alignment of understanding between science and religion requires adjustments and modifications that are bigger than before. According to Barbour, several traditional doctrines need to be re-examined based on modern (up-to-date) science. In this version, there is still overlap between the two because there are still religious doctrines that conflict with science, so it is necessary to formulate them with the current theory (re-adjustment).[185]

Like Arthur Peacocke, a biochemist and theologian who adheres to this understanding, he reflects on theology, namely past and present religious experiences in a growing religious community tested by community consensus with coherence, comprehensiveness and expediency (truth theory). He defines theology as "science as context" + "traditional faith and theology" = "revised theology". Barbour also has this understanding that current scientific theories are sought for theological implications and then a new (revised) theology is built while still paying attention to traditional theology as one of its sources, this is in an effort to formulate environmental ethics that is relevant to the

[184] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 20-21
[185] Dita Handayani, *Integrasi Agama dan Sains*…, p. 5

contemporary world. So if it is applied to the study of the interpretation of the Qur'ān, Arthur's formulation which seeks to examine religious theology with science can lead to proof of the holy books with the light of science. This can be identified with the function of *i'jāzul Qur'ān.*[186]

There are important issues that he raises in concluding the importance of theology of nature, namely (1) that the position of nature in theology, although theology must start from historical revelation and personal experience, theology must also include a theology of nature that does not belittle or ignore the cosmic order of the universe, (2) natural behavior as a dynamic process (has flexibility as well as structure, novelty and openness and orderliness, not a static, deterministic, mechanically rigid and closed world from intervention), (3), the existence of God's supreme power in nature, namely continuous creation , (4) the important role of metaphysics, (5) the existence of God's action in nature where God is a creative influence[187]

3. Systematic Syntesis

This version is a synthesis of a more systematic integration between science and religion which contributes to a more coherent worldview by elaborating it within a comprehensive metaphysical framework, namely contributing to the development of inclusive metaphysics through process philosophy. That is, every new event or theory is a past product of an act of God. So that in the context of the interpretation of the Qur'ān, a new theory inspired by the Qur'ān is a manifestation of the function of *istikhraj al-'ilm.*[188]

In the end it can be concluded that the integration put forward by Barbour states that there are scientific clues that lead to the oneness of the

[186] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 22

[187] Mohammad Muslih, Heru Wahyudi, Amir Reza Kusuma, *Integrasi Ilmu dan Agama menurut Syed Muhammad Naquib al-Attas dan Ian G. Barbour*, in Journal Penelitian Medan Agama, Vol 13, No. 1, (Oktober 2022), p. 31

[188] Andi Rosadisastra, *Metode Tafsir Ayat*…, p. 22-23

Almighty, controlling this universe with all its complex systems, namely God (in Islam is called Allah) that is by looking at His creation and all that is He did in this world (nature theology) Many of the religious traditions show that their beliefs are in line with and not in conflict with modern science, but some beliefs must be reformulated through special theories (theology of nature) This typology explains that religion and science can considered a coherent source. An understanding of the world through a scientific lens can enrich religious understanding for human beings who believe. Science makes a large and broad contribution so that it can collaborate and be in line with religion in solving world problems (systematic synthesis). One of the most important things is that science can provide confidence in humans by providing scientific evidence of the existence of God's revelation[189] so that they do not just believe from the heart but also scientifically (mind).

Furthermore science begins with a reading of nature. The two support each other and do not conflict. Science integration is an attempt to combine and integrate the realms of ontology, epistemology and axiology of the general sciences and religion in these two fields. Because with integration, knowledge will be clear where it is going, namely having a clear spirit to always serve human values and virtues, not the other way around which is destructive and destructive when it becomes a tool for exploitation and destruction of nature. (Deni Lesmana: 2018).

[189]Mohammad Muslih, Heru Wahyudi, Amir Reza Kusuma, *Integrasi Ilmu dan*…p. 6-7

CHAPTER III
BIOGRAPHY OF ZAGLUL AN-NAJJĀR, THE BOOK *TAFSĪR AL-ĀYĀT AL-KAUNIYYAH FĪ AL-QUR'ĀN AL-KARĪM* AND INTERPRETATION OF EXPANDING UNIVERSE THEORY

A. Biography of Zaglul an-Najjār

1 Biography

Zaglul an-Najjār whose full name is Zaglul Raghib Muḥammad an-Najjār is a geologist and contemporary mufassir figure who focuses his attention on *i'jaz al-'ilmi* in the Qur'ān. He was born on November 17, 1933 in Masyal village, Basiun al-Garbiyyah Province, Egypt and was educated and raised in a solih family environment that always applied religious values in everyday life. Therefore since the age of 10 years he has memorized the Qur'ān.[1]

The scientific enthusiasm of his father, who works as a teacher, also inspired him. One of the unique habits that can be used as an example is when the month of Ramadan arrives, his father invites the local cleric to have breakfast together at his house. Not infrequently those who attended were scholars from outside Egypt who happened to visit the country. So from there, Zaglul an-Najjār followed enthusiastically listening to their conversation.[2]

Then in the mid-1940s, the family moved to Cairo, at that time Egypt was still under British colonial authority. The arbitrary treatment by the British towards them was clearly recorded in Zaglul an-Najjār memory, thus arousing anti-colonialism. Shaykh Amin al-Husayni, who had attended sahur with his family, also influenced him in studying

[1] Zaglul an-Najjār, *Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*, Juz 1 (Kairo: Maktabah as-Syuruq ad-Dauliyah, 2008), p. 6

[2] Umi Nur Hasanah, *Keanekaragaman Warna Gunung*…, p. 74

nationalism, Western colonialism and the issue of the Jewish nation in Palestine. Other figures who contributed to Zaghlul an-Najjar's thoughts at that time were Hasan al-Banna and Sayyid Qutb. The thoughts of these two figures about the rise of Islām so inspired Zaglul an-Najjār who at that time took part in anti-British demonstrations. Two fellow Muslim Brotherhood activists named Omar Shahin and Ahmed al-Mineisi were killed[3]

2 Education and his career

There he made many glorious achievements such as when he obtained a certificate of eligibility in 1951 in the field of Arabic. Even so, he was more interested in the fields of science and technology, which led him to continue his education to a higher level, namely the University of Cairo, Egypt by majoring in geology at the Faculty of Science, which at that time was the center of the movement of young Egyptians in initiating revolution. For his intelligence and qualified abilities, in 1955 he graduated with the *Summa Cum Laude* predicate in science and as the best graduate he won the "Baraka Award" in the category of geology.[4]

After graduating from there, his educational journey did not go smoothly. He was thrown into prison for 9 months because his political activities with the Muslim Brotherhood were considered a threat to the rulers at that time. Being in prison is a mental and spiritual forge that greatly influences him. It was in that room that one night he dreamed of meeting the Prophet Muhammad SAW who encouraged him to fight for Islām.[5]

Government pressure was getting heavier and heavier, making him travel to the Gulf countries and Europe so that he could not attend the funeral of his father who died in December 1961 AD and his mother

[3] Umi Nur Hasanah, *Keanekaragaman Warna Gunung*…, p. 74

[4] Intan Pratiwi Mustikasari, Muhammad Badrun, *"Urgensi Penafsiran Saintifik Al-Qur'an: Tinjauan atas Pemikiran Zaghlul Raghib Muhammad al-Najjar*", in Journal Studia Quranika, Vol. 6, No. 1, (Juli, 2021), p. 36

[5] Umi Nur Hasanah, *Keanekaragaman Warna Gunung*…, p. 75

who died in 1968 AD.[6]

Then, after being released from prison, he taught at the Faculty of Geology at King Saud University, Riyadh in 1959. The progress of his journey did not stop there, he continued his studies at the University of Wales in England and earned a Ph.D under the guidance of Professor Allen Wood in geology and a fellowship from the university in 1963. For his achievements, he was awarded a post-doctoral research fellowship at the same university for 3 years. Not long after that, the academic community from King Saud University asked him to take part in the establishment of the Department of Geology there. Instead, the campus sent him to England every summer to complete his studies where this situation lasted for 7 years. Then after President Gamal Abdul Nasser resigned from his position, then he returned to his homeland[7]

Zaglul an-Najjār journey in undergoing a long educational process eventually made him invited by various institutions, universities and organizations because he was known to have intelligence and qualified abilities in the field of geology. Then the flow of his career after that can be sorted as follows:

a. Worked as a scientific consultant for the Roberston Research foundation, UK in 1963
b. Elected as a member of the editorial board of the "Journal of Foramifeeral Research" published in New York in 1966
c. Participated in the establishment of the Department of Geology at the University of Kuwait from 1967 to 1978
d. Elected as advisor to the "Journal of Moslem Mu'asher" which was published in Washington in 1970
e. Awarded as best research for Paleontology seminar, Rome in 1970
f. Became a lecturer and professor at the Department of Geology at the University of Kuwait in 1970

[6] Umi Nur Hasanah, *Keanekaragaman Warna Gunung*…, p. 75
[7] Umi Nur Hasanah, *Keanekaragaman Warna Gunung*…, p. 76

g. Became a lecturer at Qatar University in 1978
h. Became a professor at the University of California, Los Angeles, United States of America in 1977-1978
i. Elected as advisor to the scientific magazine Rayan which was published in Qatar in 1978
j. Worked at King Fahd University for oil and minerals from 1978 to 1996
k. Elected as advisor for the scientific magazine “Islamic Sciences” published in India in 1978
l. Participated in the formation of the Faisol Islamic Bank of Egypt in 1980
m. Participated in the establishment of theDubai Islamic Bank in 1980
n. Elected as member of the Islamic World Research Council in Cairo in 1981
o. Participated in the establishment of the world scientific body for scientific miracles in the holy Qur’ān al-Karīm and Sunnah (World Islamic Association) in Mecca al-Mukarromah in 1981
p. Elected as member of the Editorial Board of the “Journal of African Earth Sciences” published in Paris in 1981
q. Elected fellow of the Islamic Academy of Sciences in 1985
r. Participated in the creation of the International Islamic Charitable Organization and was elected asmember in 1986
s. Became a consultant for higher education at the Arab Institute in Khubr, Saudi Arabia from 1966 to 1999
t. Served as director at Ahqaf University, Yemen from 1996 to 1999
u. Member of the Supervisory Board of “Majlis Amna’ al-Islāmiyyah Lil’Ilam in England in 2000
v. Received the Grand Award from the Society of Egyptian Paleontologists in 2000
w. Served as graduate director of “Ma‘had Markveld” in England in

2000 – 2001

x. Elected Muslim advisor to Islamic Civilization in Switzerland IN 2001

y. Served aschairman of the committee "*al-'Ijāz al-'Ilmī*" of the Supreme Council of Islamic Affairs in Egypt from 2001 until now

z. Received a grand award from Dubai International for *al-Qur'ān al-Karīm* and *Sunnnah Nabawiyyah* with the nickname "*asy-Syakhsiyah al-Islāmiyyah al-Ula*" in 2006[8]

3 His works

For his high interest and love for science and the Qur'ān, especially the Qur'anic sciences which contain scientific signs and natural phenomena, he produced many works discussing science. Zaglul an-Najjār has works of more than 150 articles and more than 50 books covering various studies of Islamic scientific science, Qur'ān science, science in ḥadiś and many more. But still, studies that increase authority as scientific experts and modern scientific interpreters are studies that include scientific discoveries in interpreting the verses of the Qur'ān. Most of his works are not only written in Arabic, but also published in English and French. His famous works include:

- *Tafsīr Al-āyātul Kauniyah fīī Qur'ānil Karīm*
- *I'jāzul 'Ilmy fī Sunnah Nabawiyyah*
- *Nazhārat fi 'Azmati at-Ta'līm al-Muashir wa Hululihal Islāmiyah*
- *Haqā'iq 'Ilmiyah fil Qur'ānil Karīm: Namāzij min Ishāratil Qur'āniyah ilā' Ulumil Ard.*
- *Qadiyyatul I'jaz 'Ilmy li al-Qur'ānil Karīm wa Dawībitut Ta'amul Ma'aha.*
- *Min Ayātil-'Ijaz 'Ilmy al-Hayawan fi Qur'ānil Karīm*

[8] Zaglul an-Najjār, *Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm Juz 1* (Kairo: Maktabah as-Syuruq ad-Dauliyah, 2008), p. 9-12

- *Min Ayātil-'Ijaz 'Ilmy al-Sama' fi Qur'ānil Karīm*[9]

In addition to the above works, he also wrote several other works including:: *Haza Huwa al-Qur'ān, Tamalat fi Kitābillāh, Rasā'il min al-Ma', 'Ulum al-Ard fīī al-Hadharah al-Islāmiyyah, Suwar min Tasbih al-Kainat, Haqiqah al-Masih, al-Zalazil fi al-Qur'ān al-Karīm, Falastin li man ?, Qadiyyah al-Takhalluf al-'Ilmiwa al-Taqni fi al-'Alam al-Islami, Qadiyyah al-I'jāz al-'Ilmī Lī al-Qur'ān al-Karīm wa Dhawabit al-Ta'amul Ma'aha, Haqaiq al-'Ilmiyyah fi al-Qur'ān al-Karīm, Naqarrat fi Azimmah, al-Ta'lim al-Ma'asir wa Hululiha al-Islāmiyyah, al-Mafhum al-'Ilmi Lī al-Jabar fi al-Qur'ān al-Karīm, al-Ard fi al-Qur'ān, As-Samā' fī al-Qur'ān, Qāri'ah Sebtambar, al-Islām wa al-Garb.*[10]

It can be observed that his works show his broad understanding and sharp intellectual insights in the fields of religion and knowledge (science).

B. Interpretation Book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*"

1 About book:

- Book name: *Tafsīr al-Āyāt al-Kauniyyah fī al-Qur'ān al-Karīm*
- Author name: Zaglul Ragib Muḥammad an-Najjār
- Publisher: Maktabah asy-Syuruq ad-Dauliyah
- Publishing city: Egypt
- Year publication: 2007
- Number of volumes or chapters: 4 volumes[11]

This commentary specifically has a size of 17 × 24 cm. This book has also been translated into Indonesian by Masri El-Mahsyar Bidin,

[9] Busyro Lilmu'minin, *Mu'jizat Ilmiah dalam Pandangan Zaghlul Raghib Najjar,* Thesis, (Jakarta: Institut PTIQ, 2020), p. 86

[10] Fitri Anis Fauziyah, *Ar-Raj' dalam Q.S Ath-Thariq Ayat 11 (Analisis Penafsiran Zaghlul al-Najjar dalam Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm),* Thesis 2019, p. 55-56

[11] Zaghlul an-Najjar, *Tafsīr al-Āyāt al-Kauniyah*…, p. 7

Ph.D, a lecturer at the Faculty of Dirasat Islamiyah and Dr. H. Mirzan Tabrani Razzak, M. Eng, APU and lecturer in nuclear chemistry from UIN Syarif Hidayatullah Jakarta under the name "*Selekta dari Tafsir Ayat-Ayat Kosmos dalam Al-Qur'an Al-Karim*" published by Shorouk International Book Jakarta in 2010 as many as 3 volumes.[12]

Table 3.1: List of letters and verses contained in volume I:[13]

No.	Name of sūrah	Theme	Verse
1.	al-Bāqarah	Heavy rain accompanied by darkness and thunder	19
2.	al- Bāqarah	The earth as a stretch & the sky as a roof and the process of rain	22
3.	al- Bāqarah	Mosquito	26
4.	al- Bāqarah	Creation of Earth and 7 skies	29
5.	al- Bāqarah	Clouds and food	57
6.	al- Bāqarah	Rock and the wellspring that comes out of it	74
7.	al- Bāqarah	Haid	222
8.	al- Bāqarah	Orchards in the highlands doused by heavy rains	265
9.	Āli 'Imrān	Womb	6
10.	Āli 'Imrān	Creation of human from clay	59
11.	Āli 'Imrān	Obvious sign	97
12.	an-Nisā'	Men and Female	1
13.	an-Nisā'	Skin cells	56
14.	an-Nisā'	Change in God's creation	119
15.	al-Māidah	The kingdom of the heavens and the Earth and what is between them	17

[12] Zaglul an-Najjār, *Selekta dari Tafsir Ayat-Ayat Kosmos dalam Al-Qur'an Al-*Karim, (Jakarta: Shorouk International Bookshop, 2010), p. 13-23

[13] Zaglul an-Najjār, *Tafsīr al-Āyāt al-Kauniyah*…, p. 13-23

16.	al-Māidah	Crow	31
17.	al-An‘ām	Sky & Earth, dark and light	1
18	al-An‘ām	The animals are servant too	38
19.	al-An‘ām	The holy Qur'an is full of blessings & *Ummul Qurō*	92
20.	al-An‘ām	Grains and seeds	95
21.	al-An‘ām	Morning and night, sun and the moon as calculation	96
22.	al-An‘ām	Rain and those that grow because of it and arise fruit from rain	99
23.	al-An‘ām	Allah, Creator and sustainer of all things	102
24.	al-An‘ām	Atsmosphere	125
25.	al-A‘rāf	The creation of the heavens and the Earth in 6 period & Day and night cycle	54
26.	al-A‘rāf	Wind	57
27.	al-A‘rāf	Typhoon, locust, lice, frog and blood	133
28.	at-A‘rāf	Dog	176
29.	at-Taubah	12 months	36
31.	Yūnus	Ray and light	5
32.	Hūd	Earth is the source of water	44
33.	Yūsuf	Solar system and other space objects	4
34.	Yūsuf	Grameent plant	47
35	ar-Ra’du	Sky without pillar, Sun & Moon	2
36.	ar-Ra’du	Taxonomy, genetics dan genealogy	4
37.	ar-Ra’du	Sperm and ovum	8

38.	ar-Ra'du	Mineral substance	17
39.	ar-Ra'du	Coral reef	41
40.	al-Hijr	Stars and energy	14, 15
41.	al-Hijr	Wind	22
42.	an-Naḥl	Rain	10
43.	an-Naḥl	Colour	13
44.	an-Naḥl	Mountain, function and his kinds	15
45.	an-Naḥl	Buiding, house and ther roof	26
46.	an-Naḥl	Livestock	66
47.	an-Naḥl	Nest of bee	68
48.	an-Naḥl	Bee food and the honey	69
49.	an-Naḥl	Shelter in mountain and clothing	81
50.	an-Naḥl	Carcass	115
51.	al-Isrā'	Day and night	12
52.	al-Isrā'	Atom and his contents	44

Table 3.2: List of sūrah and verses contained in volume II:[14]

No.	Surah's name	Theme	Verse
1.	al-Kahfi	Asḥābul Kahfi	11
2.	al-Kahfi	Asḥābul Kahfi	18
3.	Tāhā	Sky and Earth and what is between them and what is underground	6
4.	Tāhā	Form of each occurrence (everything)	50
5.	Tāhā	Human is from land	55
6.	al-Anbiyā'	Big Bang and all creation from	30

[14] Zaglul an-Najjār, *Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*, Juz II (Kairo: Maktabah as-Syuruq ad-Dauliyah, 2007), p. 13-19

		water	
7.	al-Anbiyā’	Earth’s rotation and the orbit	33
8.	al-Anbiyā’	Doomsday (The big crunch theory)	104
9.	al-Hajj	Human’s creation and Earth’s fertilization by rain	5
10.	al-Hajj	Gravitation	65
11.	al-Hajj	Fly	73
12.	al-Mu’minūn	Phase of human’s creation	12-14
13.	al-Mu’minūn	Maintenance of water on Earth	18
14.	al-Mu’minūn	Olive tree	20
15.	an-Nūr	Dark	40
16.	an-Nūr	Rain, cloud and ice / snow formation	43
17.	an-Nūr	Animals created by the essence of water and how they walk	45
18.	al-Furqān	Shadows	45-46
19.	al-Furqān	Kinds of water	47
20.	al-Furqān	Two seas side by side like there is a dividing wall between both	53
21.	al-Furqān	Human was created from water	54
22.	an-Naml	Female ant	18
23.	an-Naml	Hud-hud bird	20
24.	an-Naml	Separation between the two seawater	61
25.	an-Naml	Creation of creatures from beginning and its repetition	64
26.	an-Naml	Day and night	86
27.	al-‘Ankabūt	Spider web	41
28.	ar-Rūm	Roman’s nation	1-4

29.	ar-Rūm	Bringing out the living from the dead and vice versa, revive the Earth after dead (arid)	19
30.	ar-Rūm	Humans were created from soil and its reproduction	20
31.	ar-Rūm	Damaga on the land and sea	41
32.	ar-Rūm	Wind, cloud and rain	48
33.	ar-Rūm	Phase or state of human life	54
34.	Luqmān	Pregnancy and weaning	14
35.	Luqmān	Donkey sound	19

Table 3.3: List of sūrah and verses contained in volume III:[15]

No.	Sūrah's name	Theme	Verse
1.	as-Sajdah	Water reproduction and human's creation	8-9
2.	al-Aḥzāb	Two hearts	4
3.	Sabā'	Termite	14
4.	Fāṭir	Fruits of his kinds and the mountain's color, so do other creatures	27-28
5.	Yāsīn	Phase of moon revolution	39
6.	Yaasiin	Chlorophyll	80
7.	aṣ-Shaffat	The creation	11
8.	aṣ-Shaffat	Cucurbita tree (pumpkin)	145-146
9.	az-Zumar	Earth and his form	5
10.	az-Zumar	DNA, Mother womb & Human creation	6

[15] Zaglul an-Najjār, *Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*, Juz III (Kairo: Maktabah as-Syuruq ad-Dauliyah, 2007), p. 13-19

11.	az-Zumar	Water	21
12.	az-Zumar	Allah is the creator & sustainer of all things	62
13.	Gāfir	Earth’s stability and his composition	64
14.	Fuṣṣilat	Earth's creation phase	10
15.	Fuṣṣilat	Night & afternoon, Sun & moon	37
16.	asy-Syuro	Boy, girl and infertility	49-50
17.	al-Jāśiyah	Wind rotation	5
18.	al-Aḥqāf	gestation period	15
19.	al-Fatḥ	Budding tree	29
20.	Qāf	Coccyx	4
21.	Qāf	Sky	6
22.	Qāf	Date palm	10
23.	aż-Żāriyāt	Sky firmness and its strong interconnection	7
24.	aż-Żāriyāt	God’s signs on Earth	20
25.	aż-Żāriyāt	Sky sustenance	22
26.	aż-Żāriyāt	Expanding universe	47
27.	aż-Żāriyāt	Earth’s expanse	48
28.	aż-Żāriyāt	Everything is created in pairs	49
29.	aṭ -Thūr	Fire under sea	6
30.	an-Najm	Genetic code	33
31.	an-Najm	Man and female, emanated semen	45-46
32.	al-Qamar	Moon split when its near doomsday	1
33.	al-Qamar	Grasshooper	7
34.	al-Qamar	All thing created based on measure	49

Table 3.4: List of sūrahs and verses contained in volume IV:[16]

No.	Sūrahs name	Theme	Verse
1.	ar-Raḥmān	Sea mass, meeting of two seas and there is a boundary between both	19-20
2.	ar-Raḥmān	Outer space	33
3.	al-Wāqi‘ah	Sperm and ovum	58-59
4.	al-Wāqi‘ah	Cell	60
5.	al-Wāqi‘ah	Cloud and rain	68-70
6.	al-Wāqi‘ah	Chlorophyll	71
7.	al-Wāqi‘ah	Stars’s orbit	75-76
8.	al-Hadīd	Iron	25
9.	aṭ-Ṭalaq	7 layers of sky and Earth	12
10.	al-Mulk	Bird	19
11.	al-Hāqqah	Big flood and ship of Noah	11
12.	al-Hāqqah	Dzahir and batin (gaib)	38-39
11.	al-Mā‘arij	Sunrise and sun places and other outer space objects	40
12.	Nūh	Stage of creation	13-14
13.	al-Qiyamah	Fingerprint	4
14	al-Insān	DNA	1
15.	al-Insān	Embryology	2
16.	al-Mursalāt	Womb	20-23
17.	an-Nabā’	Earth as expanse, Mountain as bolt	6-7
18.	an-Nabā’	Rain, cloud and lightning	14
19.	an-Nāzi’āt	Earth expanse and water springs	30-31

[16] Zaglul an-Najjār, *Tafsīr al-Āyāt al-Kauniyah fī al-Qur’ān al-Karīm* Juz IV (Kairo: Maktabah as-Syuruq ad-Dauliyah, 2007), p. 13-19

20.	an-Nāzi'āt	Mountain and livestock	32-33
21.	'Abasa	Food	24
22	at-Takwīr	Black Hole	15-16
23	al-Infiṭār	Balance of body composition	6-7
24.	al-Burūj	Star cluster	1
25.	aṭ-Thāriq	Bringht stars	1-3
26.	aṭ-Thāriq	Rib	5-7
27.	aṭ-Thāriq	Rain and his process also the	11
28.	aṭ-Thāriq	Plants, Earth's crack	12
29.	al-Gāsyiyah	Camel	17
30.	asy-Syams	Sun and morning light	1
31.	asy-Syams	Moon	2
32.	asy-Syams	Sun and afternoon	3
33.	asy-Syams	Night, moon and stars	4
34.	asy-Syams	Sky and the construction	5
35.	at-Tīn	Fig, Olive, Sinai Mountain, Makkah	1-3
36.	at-Tīn	Human form	4
37.	al-'Alaq	Sinciput	16
38.	al-Qāri'ah	Moth	4

2 Writing background

The writing of this book of interpretation cannot be separated from the scientific background that Zaglul an-Najjār has as a geologist and natural scientist as well as a scientific expert who has a wealth of knowledge, achievements and experience in the field of science. So he understood that in the Qur'ān there are verses that contain scientific appeals that stand on the principle of liberating reason from superstition and freedom of thought. The Qur'ān instructs people to pay attention to all the areas that exist on Earth and to themselves and to think about

creation and phenomena beyond Earth (space).[17]

According to him, the existence of *kauniyyah* signs in the Qur'ān needs to be proven with scientific facts as an effort to reach human understanding about the secrets behind the *kauniyah* verses of the Qur'ān. So because of that, he tries to interpret the *kauniyah* verses of the Qur'ān which cover aspects of the creation of the universe, health and the creation of creatures by analyzing existing scientific data.[18]

In his Muqaddimah Tafsīr, he explained that the Qur'ān also commands people to see and think about themselves and also the universe as in the verse 53 of Fuṣṣilat. To understand this verse, it is necessary to have scientific knowledge developed by humans to be able to uncover the secret behind creation. According to him, the Qur'ān, which has 1000 verses of *kauniyyah* in essence and hundreds of others that are not directly related to natural phenomena, cannot be understood using only linguistic aspects through understanding Arabic alone. However, it's also necessary to use scientific facts that help arrive at an understanding of these *kauniyyah* verses. Therefore, Zaghlul an-Najjar attempts (through his book of commentaries and other works) to explain one aspect of the miracles of the Qur'ān from the point of view of scientific cues contained in the verses of the *kauniyyah* Qur'ān so that it is easily understood by modern humans. Especially in the current era where science and technology are in great demand by many people so that they are very attached to every aspect of human life.[19]

3 Writing systematic

The method of delivery carried out in the interpretation book uses mushafi systematics. Namely, he expounded his interpretation of the verses in accordance with the sequence of verses and sūrah found in the Qur'ān starting from Sūrah al-Bāqarah to Sūrah Qāri'ah by taking or

[17] Iswatun Khasanah, *Penafsiran Kata Awan*…, p. 69
[18] Intan Pratiwi Mustikasari, Muhammad Badrun, *Urgensi Penafsiran Saitifik*…, p. 37
[19] Intan Pratiwi Mustikasari, Muhammad Badrun, *Urgensi Penafsiran Saitifik*…, p. 37-38

selecting verses that contain scientific signs and facts.

Zaglul an-Najjār does not set a specific theme in his commentary but he has briefly discussed it at the beginning of the letter before discussing it at length so that the reader can understand the general description of the issues to be discussed. He did not write other verses that were not related to science, just like the title of the book he used, that he only interpreted the verses of the *kauniyyah* Qur'ān accompanied by evidence of established modern scientific discoveries to prove the miracles of the Qur'ān from a scientific point of view[20]

In interpreting *kauniyyah* verses, there are several steps that he took which can be briefly sequenced as follows [21]

- In each discussion, he chooses one or a paragraph as a headline or motto without mentioning the theme of the discussion whose function is merely an introduction (but not all of it), the next step is regarding linguistic aspects which include connotative meaning and linguistic style
- Include aspects of *asbābun nuzūl* and *asbābul wurud* verses
- Discuss the relationship between the text and other verses or hadiths
- Mention aspects of the principles and general goals of Islām
- Sometimes in several discussion of verses, he mentions summaries or points about scientific cues in the verse being discussed

Then he explained the scientific instructions of the verse by including scientific theories and some modern scientific opinions and strengthened them with verses from the Qur'ān and other ḥadiś. At the end of each interpretation, he argues about the principles and goals of Islām, especially the subject matter of the Qur'ān as God's revelation that was revealed more than 1400 years ago which is capable of presenting

[20] Fitri Anis Fauziyah, *Ar-Raj' dalam Q.S*…, p. 58
[21] Umi Nur Hasanah, *Keanekaragaman Warna Gunung*…, p. 94-95

scientific facts in the modern age. Then at the end of the discussion, pictures are also included in accordance with the verse being discussed whose function is to prove the facts visually in the form of pictures of the Earth, animals, phenomena of the universe, outer space, and other[22]

As previously explained, this book of interpretations only focuses on the *kauniyyah* verses that contain scientific cues. So the contents of the book do not discuss all 114 sūrahs of the Qur'ān, but only 66 sūrahs are selected with the details of each volume as follows:[23]

- Volume I: Contains sūrah al-Bāqarah to sūrah al-Isrā' which consists of 56 discussion of verses

- Volume II: Contains sūrah al-Kahfi to sūrah Luqmān which consists of 42 verse discussions

- Volume III: Contains sūrah as-Sajdah to sūrah al-Qamar which consists of 38 discussion of verses

- Volume IV: Contains sūrah ar-Rahmān to sūrah al-Qāri'ah which consists of 40 discussion verses, so that the total number of verses discussed is 176 verses in 66 sūrahs

Another part of this commentary that can be used as a source of additional insight is that there is a complete biography of Zaglul an-Najjār and a 31-page preamble in each volume which contains 4 main points of discussion, namely:

- The literal definition of *'i'jāz* and its division
- History of the development of *'i'jāz* and methods in interpreting verses that have a scientific dimension
- Invitation to Muslim scientists, especially experts on the interpretation of the Qur'ān in accordance with current developments
- The explanation for the rejection of some groups who reject

[22] Umi Nur Hasanah, *Keanekaragaman Warna Gunung*…, p. 95
[23] Iswatun Khasanah, *Penafsiran Kata Awan*…, p. 71

the Qur'ān is interpreted based on scientific findings[24]

4 Interpretation method

The interpretation method used by Zaglul an-Najjār in his commentary is categorized as a *mauḍūi* or thematic method but in same time also use *tahlilī* method. Thematic method is a method that directs the view to a certain theme, then seeks the view of the Qur'ān on that theme by collecting all the verses that talk about it, analyzing and understanding verse by verse, compiling in the mind the verses that are general in nature and associated with the specific ones, the muthlaq coupled with the muqayyad, and others. Coupled with enriching the description using related hadiths to then conclude in one comprehensive and thorough view of the writing related to the theme discussed.[25]

In his commentary, which starts from the first volume to the fourth volume, he only discusses the verses of the Qur'ān which contain scientific signs that discuss science or science or are called the *kauniyyah* verses so that the focus of the theme is clearly seen only discussing the field of science, not turning to worship aspect, jurisprudence or philosophy or anything else. Then the related verses are compiled, as well as adding explanations in the form of phenomena, scientific discoveries and modern scientific facts that are relevant to the verses being discussed. So thus, the book of interpretation can be classified that the method used is the *maudhūi* or thematic method.

And in his explanation, it can also be categorized as an interpretation that uses *tahlilī*. The *tahlilī* method in summay, can be understood as an interpretation that seeks to explain the meaning of the Qur'ān and reveal it from various aspects, the implementation of which is carried out verse by verse from beginning to end according to the order of the mushaf.[26] This can be observed by seeing that he describes verses

[24] Iswatun Khasanah, *Penafsiran Kata Awan*…, p. 71-72
[25] M. Quraish Shihab, *Kaidah Tafsir Syarat*…, p. 385
[26] La Ode Ismail Ahmad, *Konsep Metode Tahlili dalam Penafsiran Al-Qur'an*, Vol. 4,

from various aspects, using aspects of language, munāsabah verses, in terms of verse content, scientific indications and the latest modern scientific approach.

5 Interpretation style

As was known at the beginning of the discussion regarding Zaglul an-Najjār educational journey in the field of interpretation that he was the best graduate in geology at the faculty of science so he has a high inclination towards science and technology. So therefore, by looking at the title of his book "*Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm*" and the educational experience he has been involved in for many years, it is certain that his interpretations book has a distinctive style science or *'ilmī* style. Namely the interpretation of the Qur'ān which uses the basis of modern science as a model of its interpretation, so that the book of exegesis only specifically discusses verses that have scientific indications (*kauniyah* verses).

C. The Interpretation of Expanding Universe Theory

1. The creation of sky and Earth in the Qur'ān

In his sub-chapter which discusses the expanding universe theory or the theory of the expansion of the universe, he takes the verse of the Qurān sura aż-Żāriyāt, sūrah 51 verse 47 which reads:

وَ السَّمَآءَ بَنَيْنٰهَا بِاَ يْدٍ وَّاِنَّا لَمُوْسِعُوْنَ

Meaning:

"And the sky We built with power (Our) and verily We are indeed powerful (expand it)."[27]

Then it was explained that the Qur'ān as the main life guide for Muslims which has been revealed more than 1400 years ago provides many summaries to mankind in a global and comprehensive language about the process of creating the heavens and the Earth as well as their

No. 2, (Juni, 2016), p. 3

[27] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 415

extinction and re-creation through 5 verse, namely:[28]

اَوَلَمْ يَرَ الَّذِيْنَ كَفَرُوْٓا اَنَّ السَّمٰوٰتِ وَا لْاَ رْضَ كَا نَتَا رَتْقًا فَفَتَقْنٰهُمَا

وَجَعَلْنَا مِنَ الْمَآءِ كُلَّ شَيْءٍ حَيٍّ اَفَلَا يُؤْمِنُوْن

Meaning:

"And do those who disbelieve not know that the sky and the Earth were together, then We separated them; and We made every living thing out of water; then why do they not believe ?" (Sūrah al-Anbiyā verse 30)[29]

ثُمَّ اسْتَوٰٓى اِلَى السَّمَآءِ وَهِيَ دُخَا نٌ فَقَا لَ لَهَا وَلِلْاَ رْضِ ائْتِيَا طَوْعًا اَوْ كَرْهًا

قَا لَتَآ اَتَيْنَا طَآئِعِيْنَ

Meaning:

"Then He headed to the sky and (the sky) was still in the form of smoke, then He said to him and to the Earth, "Come both of you according to My orders obediently or forced." Both of them replied, "We came obediently" (Sūrah Fuṣṣilat verse 11)[30]

يَوْمَ نَطْوِى ٱلسَّمَآءَ كَطَيِّ ٱلسِّجِلِّ لِلْكُتُبِ ۚ كَمَا بَدَأْنَآ أَوَّلَ خَلْقٍ نُّعِيدُهُۥ ۚ وَعْدًا

عَلَيْنَآ ۚ إِنَّا كُنَّا فَٰعِلِينَ

Meaning:

"(Remember) on the day of the sky We roll up like sheets of paper. As We started the first creation, so We will repeat it again. (A) promise that We will surely fulfill; really, We will carry it out." (Sūrah al-Anbiyā verse 104)[31]

يَوْمَ تُبَدَّلُ الْاَ رْضُ غَيْرَ الْاَ رْضِ وَا لسَّمٰوٰتُ وَبَرَزُوْا لِلّٰهِ الْوَا حِدِ الْقَهَّا رِ

Meaning:

"(That is) on the day (when) the Earth is replaced by another Earth and (so does) the sky, and they (humans) gather (in Padang Mahsyar) to

[28] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 415
[29] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 415
[30] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 415
[31] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 415

face Allah, the One, the Most Mighty" (Sūrah Ibrāhim verse 48)[32]

These verses were revealed when everyone still believed that the universe in which they lived was constant or unchanging and this opinion continued until the middle of the 20th century until when binoculars discovered the fact that the universe could expand, galaxies the galaxy is moving away from the observer (humans on Earth) as well as other galaxies with an average speed close to the speed of light (299,792,458) or often rounded up to 300,000 km per second.[33] So from observations made by astronomers, astrophysicists and physicists theory, they argue that if you play back the expansion event it can be understood that initially all forms of matter and energy in nature stacked together and united in one primitive object that is so small that it approaches zero where at this point, the dimensions of space and time shrink until it's gone. This is what is called the *ar-ratq* or united phase (الرَّتْقُ)**.** So with Allah permission "that thing" explodes which in scientific terms is called the Big Bang and in the Qur'ān is termed the *al-fatqu* phase or separation (الْفَتْقُ)[34]

Zaglul an-Najjār in identifying this verse with the Big Bang theory based his views on the interpretation of Ibn Kaśir who stated that everything was originally attached to one another, connected and integrated. Furthermore, between each element separately from one another. Allah made the heavens seven layers and the Earth seven layers. Earth and sky, both are separated by air. The sky could then rain down and the Earth could grow various herbs and plants.[35]

At the end of the 20th century, physical research indicated that when this primitive object exploded it turned transparent which resulted

[32] Zaglul an-Najjār*, Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 415

[33] Sri Jumini, *Relativitas Einstein terhadap Waktu ditinjau dari Al-Qur'an Surat Al-Ma'arij Ayat 4*, in Journal Syariati Jurnal Studi Al-Qur'an dan Hukum, Vol. 1, No. 2, (November 2015), p. 219

[34] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 258

[35] Hudzaifah Ismail, *Kerajaan Al-Qur'an*, p. 146

in the creation of smoke which became the forerunner of the creation of the sky and the Earth, as explained in the sūrah Fuṣṣilat:[36]

ۗ قُلْ اَىِٕنَّكُمْ لَتَكْفُرُوْنَ بِا لَّذِيْ خَلَقَ الْاَ رْضَ فِيْ يَوْمَيْنِ وَتَجْعَلُوْنَ لَهٗ اَنْدَا دًا

ذٰلِكَ رَبُّ الْعٰلَمِيْنَ

ۚ وَجَعَلَ فِيْهَا رَوَا سِيَ مِنْ فَوْقِهَا وَبٰرَكَ فِيْهَا وَقَدَّرَ فِيْهَآ اَقْوَا تَهَا فِيْٓ اَرْبَعَةِ اَيَّا م

سَوَآءً لِّلسَّآئِلِيْنَ

ۗ ثُمَّ اسْتَوٰٓى اِلَى السَّمَآءِ وَهِيَ دُخَا نٌ فَقَا لَ لَهَا وَلِلْاَ رْضِ ائْتِيَا طَوْعًا اَوْ كَرْهًا

قَا لَتَآ اَتَيْنَا طَآئِعِيْنَ

فَقَضٰىهُنَّ سَبْعَ سَمٰوَا تٍ فِيْ يَوْمَيْنِ وَاَ وْحٰى فِيْ كُلِّ سَمَآءٍ اَمْرَهَا ۗ وَزَ يَّنَّا السَّمَآءَ

الدُّنْيَا بِمَصَا بِيْحَ وَحِفْظًا ۗ ذٰلِكَ تَقْدِيْرُ الْعَزِيْزِ الْعَلِيْمِ

Meaning:

"Say, "Should it be right for you to deny God, who created the earth in two ages and you also made partners for Him ? That is the Lord of all the worlds. And He created for him firm mountains above him. And then He blessed, and He determined food (for the occupants) in four times, sufficient for (meeting the needs of) those who need it. Then He went to the sky and (the sky) was still smoke, then He said to him and to the earth, "Come you two according to My orders obediently or forced." Both replied, "We came obediently. Then He created seven the heavens in two times and in each heaven He reveals the affairs of each. Then, the heavens that are close (to the earth), We adorn with stars, and (We create it) to preserve. Such is the provision (of Allah) the Almighty, Omniscient"

2. The beginning of human knowledge regarding expanding universe phenomenon

In this section, Zaghlul an-Najjar tries to explain the flow of events of research and experiments carried out by scientists over the years

[36] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 258-259

to prove the expansion of the universe.

Beginning with the implementation of the Doppler phenomenon for the motion of galaxies outside the Milky Way galaxy which was carried out by a scientist from Austria named C. Doppler in the first half of the 19th century by examining the light reaching the observer that appears from the origin (stars in other galaxies) and moves with sufficient speed, there will be a change in the frequency of the light. If the original source is moving side by side with an observer on Earth, their frequencies suppress each other and visible light shifts towards a higher frequency (blue spectrum) and is known as "blue movement." However, if the source is moving away from the observer, then the frequency will float and the visible light will move towards lower frequencies (red spectrum) or it is called “red movement.”[37]

In 1914 AD, Slipher, an American astronomer knew that by applying the Doppler phenomenon, it was proven that some galaxies were actually moving away from the Milky Way galaxy, meaning that they were moving away from observers (humans on Earth) and from each other at high speed, so they started discussing this. And in 1925, Slipher proved for himself that the 40 galaxies he observed were generally moving at high speed away from the Milky Way and from each other.[38]

Then in 1929, Edwin Hubble, the famous American astronomer reached the analysis of particular astronomy which in essence; the speed at which the galaxy is moving away from the observer is equal to its distance from the observer or is called Hubble's Law. By applying this law, Hubble was able to measure the distances of some galaxies and their speed away. Hubble was not alone, he worked closely with Milton and Humason who had previously worked with him on binoculars at Mount Wilson, California.[39]

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[37] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 259-260
[38] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 260
[39] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 261

The studies carried out by the scientists above reveal facts about the distance of galaxies from observers and from each other, thus creating indications about the expansion of the universe. Pros and cons are divided among astronomers until it is proven concretely through mathematical equations and astronomical studies in outer space.[40]

In 1917 AD, Albert Einstein announced his theory of relativism to explain the character of gravity. And this theory shows that the universe is not constant, (it can expand or contract.) This idea contradicted that of him and the astronomers and theoretical physicists of his day. Einstein was shocked when his mathematical equations (against his will) confirmed that the universe was in a state of continuous expansion. Because of this, Einstein deliberately included the term "universe constant" in his laboratory to invalidate the fact that the universe was expanding in order to maintain his claim of a constant universe. Then again confessed that his actions were the biggest mistake he made in his life.[41]

Since then, many scientists, from Slipher, Hubble, William De Sitter to Einstein and a group of scientists from the University of Cambridge, who at first persisted with the "constant universe" opinion, were finally forced to accept the fact that the universe is expanding.[42]

So that on November 18, 1989, NASA launched a satellite called COBE (Cosmic Background Explorer) or you can call it a satellite that is used to investigate cosmic microwave background radiation. The satellite was launched with an inclination of 99° to an orbit with an altitude of 900 km[43] away from the cloud and pollution zone to the nearest atmosphere. The satellite then sent millions of images and information to Earth about the remnants of the first smoke as a result of the big bang that occurred

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[40] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 261

[41] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 261

[42] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 262

[43] J.C. Mather, dkk, *A Preliminary Measurement of the Cosmic Microwave Background Spectrum by the The Cosmic Background Explorer (COBE) Satellite*, in The Astrophysical Journal, Vol. 354, No. 2, (Mei 1990), L38

tens of billions of light years ago, namely the condition of dark smoke that filled the universe before the creation of the Earth and the sky. Glory be to God and God who has explained this incident 14 centuries earlier before today's mankind knows it as proof of the accuracy of the Qur'anic expression "دخَا ن" *dukhōn* or smoke:[44]

ثُمَّ اسْتَوَىٰ اِلَى السَّمَآءِ وَهِيَ دُخَا نٌ فَقَا لَ لَهَا وَلِلْاَ رْضِ ائْتِيَا طَوْعًا اَوْ كَرْهً

قَا لَتَآ اَتَيْنَا طَآئِعِيْنَ

Meaning:

"Then, He went to the creation of the heavens and the heavens were still smoke, then He said to it and to the Earth, "Come you two according to My command willingly or forced." Both of them replied, "We come gladly." (Sūrah Fuṣṣilat verse 11)

Likewise the rockets that traverse long distances in the sky, the satellites they release and sophisticated measuring and recording devices help to realize this smoke image where its remnants are at the edges of the captured parts of the universe and at a distance of up to 10 billion light years.[45]

3. Scientific indications verse

In his interpretation he use sentence توسع الكون as sentence that demonstrate to this theory. The word توسع mean expansion, extending, extension, widening, increase and englargement. The word expansion expansion similar meaning with expanding.[46] Meanwhile الكون mean exsistent, the existing, reality; the world;, the cosmos, the universe. This last word (universe) that most suitable to the context of this theory. So

[44] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 262.
[45] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 263
[46] Hans Wehr, *Arabic English Dictionary*, (New York: Spoke Language Services, 1976), p. 1068

basically, the sentence توسع الكون in English mean "expanding of universe" or can use "expansion of universe."[47]

In the first, he explain about sky component. The sky is a solid building, interconnected and continuous and has no holes. The area between celestial bodies is filled with transparent gas which is generally dominated by hydrogen and scattered several very small and fine solid particles whose general composition is sodium, titanium, calcium, potassium, ammonia, iron and others. In addition, there is a magnetic field between each of the celestial bodies so that they bind each other and the sides are interconnected like a solid building structure[48]

Second, the meaning of the fragment of the verse وَالسَّمَآءَبَنَيْنٰهَابِاَيْدٍ means with "full wisdom and power" that indicates how big the universe is which is very controlled and controlled its movements and very accurate in all its problems and provisions in addition to Divine protection from damage and destruction. In language, the word سَمَآءٍ (sky) includes everything that is above and overshadows humans and other living things. This means everything that is around the Earth and the heavenly bodies and all the energy and matter that is in it. According to scientists' statistics, there are 200 billion galaxies in the appreciable part of the universe of which some galaxies are larger than the galaxies in which humanity lives, and some are smaller. And each galaxy has one million to 10 billion stars in it. These stars are not in a constant state or always remain, because stars also have a life cycle from the birth phase (from the nebula) to the death phase (which ends in a supernova explosion).[49]

The same meaning was mentioned by the al-Muntakhab Interpretation Compilation Team which consists of several contemporary

[47] Hans Wehr, *Arabic English Dictionary*, p. 847
[48] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 420
[49] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 421

Egyptologists. The word *samā*' (sky) in that verse is meant as everything that is above and overshadows. So everything that is around celestial bodies such as planets, stars, solar systems and galaxies is also called the sky.[50]

Third, this verse implies that this huge universe, its motion is controlled, the building is solid, and all the provisions in it are arranged in such a way by Allah SWT with His knowledge, wisdom and wisdom. The area that can be observed by humans alone is beyond the capacity of the human mind which is estimated to be billions of light years wide, let alone other parts of the universe that cannot yet be observed because scientists agree that the universe is endless, its scope is unlimited as in the verse وَّاِنَّاۤ لَمُوْسِعُوْنَ which means *"indeed We really have power (to expand it)"* means that the expanse of the sky is an extraordinary area and indicates the fact of the continuous expansion of the universe until now, until the time He wills. Where this is a fact that has been revealed in the Qur'ān long before scientists discovered it.[51]

The fact that the expansion of the universe, as discussed at the beginning of the discussion, occurs due to the distance of the galaxies from each other and from humans on Earth itself. This can be seen from the phenomenon of the frequency spectrum of light coming from stars outside the Milky Way galaxy towards the red spectrum (moving away towards the red spectrum or sometimes not even the red spectrum. And the size of the backward motion of the galaxies can be measured by the size spectral lines of a number of stars in the galaxy and scientifically proven that their speed ranges from 60,000 km per second to 272,000 km per second. Scientists found that the size of the neutral spectrum of stars to the red spectrum or sometimes not the red spectrum is considered as the speed of the stars away from the observer in Earth where that speed

[50] M. Quraish Shihab, *Tafsir Al-Mishbah,* p. 351
[51] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III,* p. 421

can be used to measure the distance of the stars from the observer.[52]

Fourth, the fact of the expansion of the universe indicates the creation of matter and energy to fill space as a result of that expansion. The space that exists in this universe is scattered in a number of matter with various densities but there is an unbroken connection where there is no space and time, besides there is no space and time without matter and energy. Until now, even scientists have not been able to explain the origin of the sources of matter and energy that fill space in the universe as a result of the process of expanding the universe at a very high speed, except for only one interpretation, namely that creation originated from nothing.[53]

Fifth, the phenomenon of the expansion of the universe leads to the correct perception that if the expansion process is counted backwards, meaning that the timeline is reversed, it will be found that every form of matter and energy will meet and unite, as well as space and time, all of which will become one point. So from this, it brings the conclusion that the universe is like a creature that has a beginning, namely through the Big Bang process which explodes and spreads in all directions. And every beginning has an end point. Likewise, the fact confirms its creation from nothing, as a result of the process of expanding the universe necessitating the continuous creation of matter and energy where the reason for this is still unknown to scientists. This could have happened for the universe to maintain its average density as seen today.[54]

4. Astro Physics and the Smoke of the Universe (Cosmos)

Physics calculations show that the weight of the universe at the time of the first or before the Big Bang was almost zero. The moment when matter and energy come together to become one coherent also in the absence of space and time is called the *ar-Ratq* phase (gathered

[52] Zaglul an-Najjār, Selekta dari Tafsir…, p. 265
[53] Zaglul an-Najjār, Selekta dari Tafsir…, p. 266
[54] Zaglul an-Najjār, Selekta dari Tafsir…, p. 266

together as one) then explodes with great rage (Big Bang) or the *al-Fatq* phase (splits) and turns into a ball of radiation and initial particles (subatomicparticle) that begins to expand and cools at such an incredible speed that it turns into a very thin transparent gas[55]

One seconds after the explosion, physics calculations predict that the temperature of the universe has dropped drastically from trillions of absolute degrees to 10 billion absolute degrees. At that time the conditions of the universe turned into a thin transparent cosmic smoke consisting of photons, neutrons, electrons and the opposite of these particles as well as a few protons and neutrons. If it weren't for the process of the universe which continues to expand and cool down with such an accurate ratio, surely subatomic particles and their opponents will annihilate each other and in time it will end. However, Allah Almighty kept him from that.[56]

Protons and neutrons can exist in the universe in a form called dark matter. According to Alan Joth, the expansion immediately after the Big Bang averaged beyond perception which brought the diameter of the universe to 10 times per second.[57]

Then when the temperature of the universe decreased, protons and neutrons combined to form the nucleus of a heavy hydrogen atom or deuterium which decomposed into hydrogen or united with additional protons and neutrons to form helium nuclei and beryllium nuclei. However, the dominant remains in the nuclei of hydrogen and helium gas atoms. After that the production of helium stopped as well as its associated elements and the universe expanded, expanded and cooled for a long time. Besides, when the temperature drops to thousands of absolute degrees, elemental atoms begin to form and gather so that over time the cosmic smoke begins to accumulate in the form of a number of giant

[55] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 267
[56] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 267
[57] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 267

cosmic nebulae.[58]

Simultaneously, parts of the nebula began to become denser together due to gravity and rotation, gradually increasing until a dense mass of gas was formed inside. With the continuity of the rotation of the solid mass in the nebula, the quantity of hydrogen and helium gas that is in it starts to pile up on itself with a larger ratio so that it increases its temperature to the stage needed to start the process of nuclear fusion, then stars are formed that produce light and heat. On the scale of a star that has a large weight, this process continues to gradually create elements higher in its nuclear weight such as carbon and oxygen and other elements until the entire core of the star turns into iron.[59]

5. The distribution of various forms of energy in the universe

The process of expanding the universe causes the universe to continue to be filled with electromagnetic energy, on the basis that each time the universe expands, the concentration of energy in it decreases, and the decreasing density and temperature play a role in forming the galactic nucleus from the cosmic smoke. The first form of energy that acts as a cosmic force is the gravitational force that works through vast spaces capable of subduing every celestial body and maintaining its structure according to the mass or quantity of energy in it. Perhaps this is what is meant in His words:[60]

اَللّٰهُ الَّذِيْ رَفَعَ السَّمٰوٰتِ بِغَيْرِ عَمَدٍ تَرَوْنَهَا

Meaning: “It’s Allah who raised the sky without a pillar (as) that you see...” (Sūrah Ar-Ra‘d verse 2)

اَلَمْ تَرَ اَنَّ اللّٰهَ سَخَّرَ لَكُمْ مَّا فِى الْاَ رْضِ وَا لْفُلْكَ تَجْرِيْ فِى الْبَحْرِ بِاَ مْرِهٖ ۗ

[58] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 268
[59] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 268
[60] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 268-269

وَيُمْسِكُ السَّمَآءَ اَنْ تَقَعَ عَلَى الْاَ رْضِ اِلَّا بِا ذْنِهٖ ؕ اِنَّ اللّٰهَ بِا لنَّا سِ لَرَءُوْفٌ رَّحِيْمٌ

Meaning:

"Have you not seen that Allah has subjected to you (humans) what is on the Earth, and the ships that sail in the seas by His command. And he keeps the sky (objects) from falling to Earth, except with His permission? Truly, Allah is Most Gracious, Most Merciful to mankind." (Sūrah al-Hajj verse 65)[61]

Meanwhile, the second form of energy that is spread throughout the universe is electromagnetic force, the force that acts between electrically charged particles. Its strength is millions of times stronger (approximately 10^{-14}) times) than the force of gravity and is the force of attraction between electrically charged particles of the same kind. The force of attraction and antonyms that cancel each other out. Because of that, his power output in the universe was close to zero. But at the level of particles and atoms forming matter remains the dominant force. And it is this force that forces the electrons in elemental atoms to revolve around the nucleus in the same way the gravitational force of Earth (and the rest of the solar system's planets) orbits the Sun. This indicates how great Allah SWT who has created the universe with a very solid building unit, starting from the smallest to the largest. According to the description of physicists that electromagnetic force is result of exchanging a large number of particles with almost zero weight which are generally called photons.[62]

The third form of energy is the powerful nuclear force, which is the force that holds subatomic particles inside the protons and neutrons in the atomic nucleus. This strength reaches its maximum limit at normal energy levels but weakens simultaneously when high energy levels are continuously.[63]

[61] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 269
[62] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 269-270
[63] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 270

Then the fourth form of energy is a weak nuclear force, namely the force responsible for the process of radiation activity, namely when the powerful nuclear force weakens at high energy levels. So the nuclear force is weak and the electromagnetic force becomes strong at the highest level of that energy.[64]

Cosmologists based on cosmic fossils estimate that the big bang occurred about fifteen billion years ago and then evolved and developed until it finally became what it is today. In summary, the chronology of the events from the Big Bang and then the expanding universe lasted until the era of the emergence of living things can be arranged as follows:

Table 3.5: cosmic calendar (period cosmic from Big Bang)[65]

Cosmic time	**Events**	**Time for now**
0	Big Bang	15 billion years
10^{-43}	Particle creation	15 billion years
10^{-36}	Inflation, density fluctuations	15 billion years
10^{-10}	Quark production	15 billion years
1 second	Annihilation of the electron-positron pair	15 billion years
1 minute	Nucleosynthesis of helium and deuterium	15 billion years
1 week	Thermal radiation	15 billion years
10.000 years	The universe is dominated by	15 billion years

[64] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 270
[65] Agus Purwanto, *Ayat-Ayat Semesta*…, p. 305-306

	matter	
300.000 years	The universe becomes clear	14,997 billion years
1 billion years	Beginning of galaxy formation	14 billion years
2 billion years	Beginning of the collection of galaxies	13 billion years
3 billion years	The protogalaxy collapsed	12 billion years
3,1 billion years	The first stars are formed	11,9 billion years
4 billion years	Quasars are born, populations of II stars are formed	11 billion years
7 billion years	Star population I is formed	8 billion years
10,2 billion years	the first interstellar clouds formed	4,8 billion years
10,3 billion years	The protosolar nebula collapsed	4,7 billion years
10,4 billion years	Planets formed, artificial compaction	4,6 billion years
10,7 billion years	Craters in planets	4,3 billion years
11,1 billion years	Earth's oldest rocks formed	3,9 billion years
12 billion	Micro life is formed	3 billion years

years		
13 billion years	An atmosphere that has a lot of hydrogen develops	2 billion years
14 billion years	Macroscopic life formed	1 billion years
14,4 billion years	Earliest fossil recorded	600 million years
14,55 billion years	Early land plants	450 million years
14,6 billion years	Fish	400 million years
14,7 billion years	Fern	300 million years
14,75 billion years	Wood, mountain formed	250 million years
14,8 billion years	Reptile	200 million years
14,85 billion years	Dinosaurs, continent shift	150 million years
14,95 billion years	The first mammals	50 million years
15 billion years	Homo sapiens	2 million years

It can be understood from the table above that the universe has a

chronology of its creation. Starting from the Big Bang until now so that in the field of science and from the point of view of Islamic science, the universe did not suddenly exist in such a way with various beautiful systems, arrangements and orbits of every object in space. But it started with a huge explosion and then expanded then from the smoke of the Big Bang cosmos which rotated, clumped, compressed and bound by gravity, stars, planets, galaxies and other systems of celestial bodies were created, the events of which have continued until now.

6. The unity of energy in the universe

By observing and researching the process of star creation from cosmic smoke, theoretical physicists get ideas and formulate the theory of the great unity. This theory is considered as a prologue to a larger theory which unites all the forces of the cosmos in one gigantic force which bears witness to the absolute oneness of Allah SWT. And among the cosmic forces emerge the 4 most known forces in the universe as discussed earlier, namely gravitational forces, electromagnetic forces, weak nuclear forces and tremendous nuclear forces along with the Big Bang. Except for the gravitational force, the other cosmic forces also reach the same energy ratio at a high maximum level which is called the "Great Force for Unification." The three forms of energy are considered as one three-faced force.[66]

[66] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 426

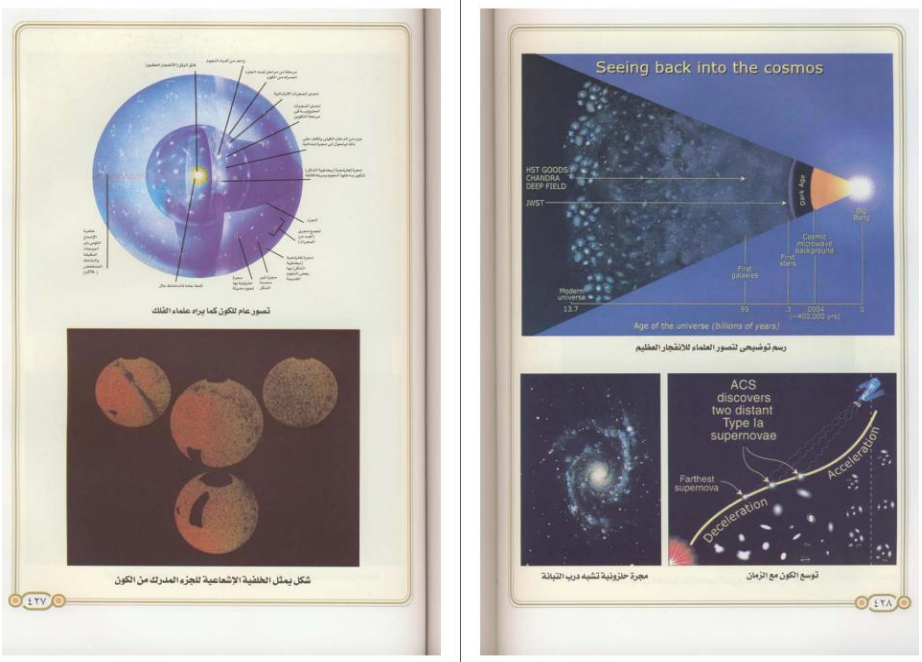

Image 3.1: book *"Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm"* p. 427

Left page: General picture of the universe according to opinion of the astronomy scholar (above), a shape that represents the background radiation of the observable part of the universe (below)

Right page: Depiction in the perspective of the scholars in explaining the Big Bang (above), expanding universe in line with the times (bottom right), Snail Galaxy (spiral) resembles the Milky Way (bottom left)[67]

[67] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 427

Image 3.2: book *"Tafsīr al-Āyāt al-Kauniyah fī al-Qur'ān al-Karīm"* p. 428

Left page: The galactic disk and spiral arms which contain millions of stars (above), the truth about the expansion of the universe explains that galaxies are moving away from other galaxies in line with time (below)

Right page: Sūrat al-Gāsyiyah verse 17-20 commands humans to think and contemplate universe and its content.[68]

[68] Zaglul an-Najjār, *Tafsīr al-Āyat al-Kauniyyah…Juz III*, p. 428

CHAPTER IV
ZAGLUL AN-NAJJĀR METHOD IN INTERPRETING EXPANDING UNIVERSE THEORY AND HIS INTERPRETATION IF SEEN FROM IAN G. BARBOUR'S PERSPECTIVE

A. Zaglul an-Najjār Method in Interpreting Expanding Universe Theory

1. Interpretation source

Zaglul an-Najjār in his interpretation of expanding universe theory, makes one of the verses that strongly demonstrates to this theory, namely sūrah aż-Żāriyāt verse 47. Then it can be seen that the interpretation in his interpretation book, does not use other verses as reinforcement of the verse, but only acts as a sequence of events in the creation of the universe. Likewise the verses before (verse 46) and after (verse 48), he did not make *munāsabah* it but only interpret for two next verses (verse 48 and 49) in other theme. He also does not include any ḥadiś opinion, the opinion of the companions, tabi'in and other *mufassir* who discussed the verse.

Then after conducting research on the data and analyzing it, it was found that the interpretation he did first included other verses related to the process of creating the universe, its destruction and re-creation process as part of the stages of creation, and sūrah aż-Żāriyāt is one of the stages among them. After that, he began to tell a chronology of the origins for this theory by including a series of research experiments and the results of trials carried out by scientists over the years. There are scientist that involved in this theory, among them:

- Scientists are considered to be the originators of this theory:

Alexander Friedmann[1] and Abbe Georges Lemaitre[2]

- Scientists who proved the truth of this theory through telescope observations: Slipher,[3] Edwin P. Hubble, Milton Humason[4]

- Scientist who predicts the possible presence of background radiation (as proof of this theory): George Gamow and Ralph Alder[5]

- Scientists who proved the truth of this theory by observing the background radiation: Arno Penzias and Robert Wilson[6]

- Scientists who initially contradict in this theory, but finally believed it after seeing the truth of the research: Albert Einstein, Thomas Gold, Fred Hoyle, Herman Bondi, scientific group of Cambridge University[7]

- Those which supports this theory: Stephen Hawking,[8] NASA, William De Sitter (1917), almost all scientist in the world[9]

So after carrying out such an analysis, it can be concluded that source of his interpretation in expanding universe theory originates from using scientific reasoning ijtihad based on the theory and research of scientists as well as looking at the development of modern science which has been proven true and researching through the language aspects of verses to look for scientific indications.

And after conducting research, it can be seen that Zaglul an-Najjār is one of the scholar (*mufassir*) who recently discussed this theory

[1] Taufiq Hidayat, *Teori Relativitas Einstein*, p. 319
[2] Caner Taslaman, *Miracle of the*…, p. 33
[3] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 260
[4] Agus Purwanto, *Ayat-Ayat Semesta*…, p. 303
[5] Taufiq Hidayat, *Teori Relativitas Einstein*, p. 370
[6] Taufiq Hidayat, *Teori Relativitas Einstein*, p. 350
[7] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 262
[8] Zakir Naik, *Miracles of Al-Qur'an*…, p. 23
[9] Zaghlul an-Najjar, *Selekta dari Tafsir*…, p. 262

because the proof of truth about this theory was only proven after the discovery of cosmic microwave background radiation by COBE in 1989 so that his interpretation is very relevant to the development of 20th and 21th century modern science.

2. Interpretation type

After conducting research that Zaglul an-Najjār did not use other Qur'anic verses as a source of his interpretation, nor did he use the narrations of the companions, tabi'in and also *israiliyyat*. In the verses he interprets, he only uses his ijtihad through scientific reasoning based on research by scientists and looking at the development of modern science in this era which he then examines from the aspect of the language of the verses to look for scientific content. So it can be concluded that the type of his interpretation belongs to the interpretation *bir-ra'yi*.

According to Manna al-Qaththan, the *tafsīr bir-ra'yi* is an interpretation in which the explanation of its meaning, the mufassir just hold on his own understanding, his conclusion (*istimbath*) is based solely on logic. Like Husain aż-Żahabi said that the word "*ar-ra'yi*" means *ijtihād,* so can be understood that bir-ra'yi is interpretation whose explanation is taken based on *ijtihād* and the scholar thoughts.[10] It's no difference like Zaglul an-Najjār interpret expanding universe theory based on sūrah aż-Żāriyāt verser 47.

3. Interpretation method

The interpretation method used by Zaglul an-Najjār can be categorized as *mauḍū'i* & *tahlilī* method. This can be seen in his interpretations that he selects and uses certain verses that have scientific cues as objects of his interpretation and then interprets them at length with

[10] Kusnadi, Raidatun Nisa,. *Eksistensi Tafsir Bil Ra'yi*, in Al-Mubarak: Journal Kajian Al-Qur'an & Tafsir, Vol. 7, No. 2, (2022), p. 46-47

a comprehensive discussion aspects of language, hypotheses and research by scientists as well as the development of modern science which has been tested for truth.

4. Interpretation style

The By looking at the title and after researching the discussion of verses that use *kauniyyah* verses and then interpreting them using scientific reasoning and the findings of scientists, it's clear that his interpretation is *'ilmī* style

5. Based on scientific interpreattion principle

To further analyze Zaglul an-Najjār interpretation of the theory of the expanding universe in his commentary, it's necessary to have an analytical method so that more systematic conclusions can be drawn[11] by using interpretation rules when interpreting *kauniyyah* verses through a scientific approach, as applied by Mohammad Nor Ichwan in his book "*Tafsir 'Ilmiy Memahami Al-Qur'an melalui Pendekatan Sains Modern*":

a. Linguistic aspect

The linguistic aspect used by Zaglul an-Najjār in as explained in chapter III from sūrah aż-Żāriyāt verse 47 that he interpreted the fragment of the verse وَ السَّمَآءَ بَنَيْنٰهَا بِاَ يْدٍ (We built the sky with (Our) power) means with full of wisdom and power which indicates how big the universe is., very orderly, controlled, accurate parts and the presence of divine protection from destruction. the word السَّمَآءَ from a language point of view means everything that is above and includes everything that overshadows humans, including the heavenly bodies and their entirety.

[11] Umi Nur Hasanah, *Keanekaragaman Warna Gunung*…, p. 117

Meanwhile, in his commentary on other verses, precisely in verse 22 of the same sūrah, he explains the word sky into three meanings namely that 1) the sky is understood as the troposphere (one of the layers of the atmosphere), 2) the sky is understood as the sky of the world, 3) the sky is understood as highest ceiling.[12] Whereas وَاِنَّا لَمُوْسِعُوْنَ (Indeed, We are truly powerful (expanding it) means that apart from being so extraordinary it also indicates continuous expansion until the time determined by Allah SWT.

b. Paying attention to the correlation of verses (*munāsabah*)

In the commentary of sūrah aż-Żāriyāt which discusses verse 47, he does not discuss the *munāsabah* of the verses before and after it in that theme, but discussing it separately from study of expanding universe theory. About *munāsabah* aspect, he use other surahs that related to the process of creating the sky and the Earth as reinforcement and explanation of the phases of the universe's events so that one can see from a different angle view of the Qur'ān when talking about the chronology of the creation of the universe. As discussed in chapter III, namely al-Anbiya verse 30 which talks about the Big Bang process implicitly, Fuṣṣilat verse 11 talks about the *dukhān* phase (cosmos smoke), al-Anbiyā' verse 104 about the doomsday phase (Big Crunch theory), Ibrāhīm verse 48 about the phase after the apocalypse (re-creation) and two other verses which, according to him, seem to show the existence of gravity namely sūrah ar-Ra'd verse 2 and al-Hajj verse 65

c. Based on established scientific facts

It can be observed that throughout his interpretation after the presentation of verses related to the process of creating nature, he includes

[12] Zaglul an-Najjār, *Selekta dari Tafsir*…, p. 248, 252 and 255

scientific facts by telling the initial chronology of the disclosure of the theory of the expanding universe by several scientists such as George Lemaître based on Einstein's theory, further scientific facts Edwin Hubble discovered that galaxies are moving away from each other through their telescopes, Arno Penzias and Robert Wilson found evidence of radiation left over from the Big Bang explosion and in the future was further strengthened by the COBE satellite and various other evidences. All of these explanations show that his interpretations do not contradict and actually reinforce each other with scientific facts that have been tested and proven by scientists.

d. Thematic approach

Based on the author's analysis as in chapter III that his book uses a thematic approach, it can be seen that he only explain and focuses on one discussion using the verses of the Qur'ān that related to scientific cues in the Qur'ān.

B. His Interpretation If Seen From Ian G. Barbour's Perspective

Zaglul an-Najjār is a leading geologist and scientific expert who is still active in conveying his scientific da'wah in the field of al-Qur'ān science, especially on his own YouTube account called "Dr. Zaghloul Al Najjar د. زغلول النجار with 363 subscribers and 886 videos (until now) made since February 2017. Meanwhile, Ian G. Barbour is an American scholar, contemporary thinker and scientist in science and theology who studies issues of religion and science. Has several works that discuss the relationship of problems around religion and science and triggers their typologies, namely conflict, independence, dialogue and integration. This typology is very well known and has been widely used by scientists and theologians as well as various figures as a guide in placing, mapping and mediating between religion and science with many written works in the

form of books, journals, theses and other readings that carry Barbour's typology.

As for *Tafsīr* by Zaglul an-Najjār entitled "*Tafsir al-Ayat al-Kauniyah fi al-Qur'an al-Karim*" is his masterpiece which he worked on for a long time which contains interpretations of *kauniyyah* verses accompanied by evidence of scientific discoveries of modern science so that the interpretation is relevant to today where technology is increasingly sophisticated and mushrooming in various corners.

There are several aspects that can be observed, the reasons why he is considered to have broad abilities in the field of Qur'ān science:

1. Completed the memorization of the Qur'ān since 10 years age
2. Have a high interest in science and technology since young
3. Ha The best graduate in the field of geology faculty ofscience by winning the "Baraka Award"
4. Has a long educational experience in studying science at various universities and important institutions and often fills in studies on the science of the Qur'ān
5. Become a lecturer, professor, professor and director at universities as well as scientific adviser, consultant, committee chairman and board member of important agencies in several places
6. Many participated in the establishment of departments, banks, scientific bodies and charitable organizations
7. Has many works in the field of science and and several times received awards and scholarships in that field of science andseveral times received awards and scholarship in that field

8. Even though he is almost a century old, he is still active today in filling out the fields of Qur'ān science, such as through his youtube account

By looking at some of these aspects, it is worth mentioning that he is one of the mufassir figures who strongly supports and accepts the Qur'ān as a source of knowledge, and vice versa accepts knowledge as a basis for knowledge in interpreting the Qur'ān. In his commentary, he said that there are 1000 verses explicitly and hundreds of others which do not directly explain natural phenomena. He also has full confidence that the Qur'ān is a book of miracles from the aspect of language and literature, aqidah-worship-morals (*tasyri'*), historical information and from the point of view of the aspect of scientific cues.[13] From this it can be concluded that based on the interpretation in his book, his scientific background and his own words in the muqoddimah of his book, he is a figure who has the view that between the Qur'ān and knowledge (science), the two mutually reinforce, complement each other, and there is no contradiction between the two.

So based on the four typologies compiled by Barbour as explained in chapter II, Zaglul an-Najjār interpretation can be included in the Integration typology in natural theology and systematic syntesis where this view states that between religion and science synergize, mutually reinforce each other in ideally building world civilization and overcoming the problems of human life so that goodness, prosperity and prosperity for nature can be created.

In a nutshell, the integration of the natural theology version can be understood that the existence of God, who acts as the creator, regulator and maintainer of the universe, can be known by reasoning from the human mind, namely by looking at his creation, the design of the universe in all

[13] Fitri Anis Fauziyah, *Ar-Raj' dalam Q.S.*., p. 57

its order cannot be realized through nothingness that suddenly exists without any the cause. So that everything has a starting point or a starting point for its manifestation and it is impossible to have an endless cycle.

In this analogy, said that it's impossible for anything that exists, be it events or objects or anything else in this world, to occur or be created without a cause. So it doesn't make sense if the universe that has been created so beautifully, solidly built, designed in an orderly and massive manner, arranged in such a complicated way, whose immensity is unimaginable was created by nothing or something that didn't exist yet, or was created suddenly. For example, when someone passes through a village road. Suddenly he stepped on goat droppings. Surely with common sense and reasoning as normal people should, he will say that before he set his foot there, there must have been something that had previously passed and excreted its excrement there, namely goats. So it's impossible for the dirt to suddenly appear, there must be something causing the dirt to appear. Just like the creation of the universe, surely someone designed it in such a way. In fact, this "designer" must be a Super Essence because He is the one who created everything in this universe,[14] starting from the largest and smallest elements since the first (first creation) until now.

Islām as a monotheistic religion has explained this for a long time in many verses of the Qur'ān so that a Muslim is not only required to believe in the One and Almighty God through the heart but also to believe with an established logic, namely with common sense which makes strong stability in faith. Among the verses that talk about the oneness of Allah which is well-known and most often read by Muslims every day, especially during prayers, is the first verse of the sūrah Ikhlās. Then the second to the fourth talk about God that He is the place to ask for everything that creatures need Him, He also does not have children and is

[14] Santri Gayeng, 2022, *Gus Baha: Apakah Ada Wujud sebelum Allah ?*, Accessed on 9 June 2023 from https://youtu.be/h6EHNJ9gFog

not begotten like His creatures, and He is not similar to Him, he is different from his creatures, not can be described or imagined. With this narrative, Muslims will think logically about God, not God as imagined in their imaginations.

Aḥmad Bahauddin Nursalim or often called Gus Baha', a scholar who is a student of a charismatic scholar from Indonesia Maimoen Zubair, once said the same thing as the statements above that it's impossible for this universe to be created from nothing. Common sense will surely say that something that exists must have a cause because reason must be forced to accept the truth. Then reason will accept or be forced to accept the truth that this universe which has (already) existed must have had a creator, the initial cause of which in philosophy is called "*causa prima*" (the main factor without waiting for other factors), in terms of scholars it is called "*musabbibul asbab*" (the cause of all causes) or "*wajibil wujud*" (something that exists without any other cause). In essence, these meanings are all the same, leading to the meaning of God. Then in Islam, it is called Allah SWT.[15]

He also once explained that the logic built by Islām regarding the nature of God is very rational. As happened in the story of Prophet Moses (with his prophetic logic) arguing with Pharaoh, as in the following sūrah asy-Syu'arā' verses 23-28:[16]

قَا لَ فِرْعَوْنُ وَمَا رَبُّ الْعٰلَمِيْنَ (٢٣) قَا لَ رَبُّ السَّمٰوٰتِ وَا لْاَ رْضِ وَمَا بَيْنَهُمَا

ۗ اِنْ كُنْتُمْ مُّوْقِنِيْنَ (٢٤) قَا لَ لِمَنْ حَوْلَهٗۤ اَ لَا تَسْتَمِعُوْنَ (٢٥) قَا لَ رَبُّكُمْ وَرَبُّ

اٰبَآئِكُمُ الْاَ وَّلِيْنَ (٢٦) قَا لَ اِنَّ رَسُوْلَكُمُ الَّذِيْۤ اُرْسِلَ اِلَيْكُمْ لَمَجْنُوْنٌ (٢٧) قَا لَ رَبُّ

[15] Santri Gayeng, 2022, *Gus Baha: Apakah*…, https://youtu.be/h6EHNJ9gFog

[16] Santri Gayeng, 2020, *Debat Kusir Paling Fenomenal: Musa dan Fir'aun | Gus Baha*, Retrieved on 9 June 2023 from https://youtu.be/izF9VaGrmuw

الْمَشْرِقِ وَا لْمَغْرِبِ وَمَا بَيْنَهُمَا ۗ اِنْ كُنْتُمْ تَعْقِلُوْنَ (٢٨)

Meaning:

"Pharaoh asked, Who is the Lord of all the worlds? (23), He (Moses) replied, "God the Creator of the heavens and the Earth and what is between them (that is your God), if you believe in it (24), He (Pharaoh) said to those around him, " Did you not hear (what he said)?" (25), He (Moses) said, "(He is) your Lord and also the God of your forefathers" (26), He Pharaoh said, "Indeed your Messenger who was sent to you is truly a madman" (27), He (Moses) said, "(He is) the Lord (who rules over) the east and the west and what is between them; if you understand" (28).

As quoted from his study, this verse tells that initially Pharaoh asked what God was, because he thought that God was an object (be it gold, silver, other things) and not a Essence. Because the word *maa* in nahwu science is defined as something that doesn't make sense. So when the Prophet Moses answered "who rules the heavens and the Earth", Pharaoh laughed (with the intention of mocking), because he thought that Moses was not scientific. "Just look at Moses, when asked about what God is (what is made of, what material is it) instead he answers with the God of the heavens and the Earth." So that the Prophet Musa also used the 'second attack' by answering that "Your God is the God of your ancestors before." With this answer, almost half of Pharaoh's bodyguards immediately became believers because they thought that if Pharaoh was really God, it means that his forefathers did not have God because their God came too late, then it means who was the God of Pharaoh's ancestors ? then they became aware (with logic) that Pharaoh was only human, just like them. With that argument or hujjah, Pharaoh was offended and angry because he could no longer argue. So here is seen the importance of *hujjah,* an argument about the established divine logic.[17] As the integration put forward by Barbour, looking at nature and everything in it through reasoning, one will know the existence of God.

[17] Santri Gayeng, 2020, *Debat Kusir Paling*…, https://youtu.be/izF9VaGrmuw

Barbour himself who is a Christian, belongs to a group that accepts that God intervened in the creation of the universe and everything in it. He said: "God transcends nature, but he is immanent in temporal processes, because he is present in the process of the realization of every event. This indicates that nature should not be exploited and also worshiped, but must be respected and valued, because nature is the stage for God's activities that are continuous."[18]

If analyzed more deeply, in fact Barbour's typology of integration had already been explained by one of the most famous books in the field of Sufism named "*al-Ḥikam*" which was authored by Ibn Athoillah as-Sakandari. Even though it indirectly mentions the alignment between religion and science, but in several *ḥikmah* or *pasal* (discussion themes) it's mentioned about the relationship between *Khāliq* (creator / God) and *makhlūq* (universe and everything in it). Can be see in hikmah number 14, 126-127 and 151. In hikmah 14 said:

الكَونُ كلُّهُ ظُلمَةٌ وإنّمَا اَنارَهُ ظُهُورُالحَقِّ فِيْهِ فَمَنْ رَأَى الكَوْنَ وَلَمْ يَشْهَدْهُ فيهِ

اَوْعِنْدَهُ اَوْقَبْلَهُ اَوْبَعْدهُ فَقَدْ اَعْوَزَهُ وُجُوْدُ ٱلاَنْوَارِ وَحُجِبَتْ عَنْهُ شُمُوْسُ ٱلْمَعَارِفِ بِسُحُبِ

الآثَارِ

Meaning:

"The universe is all in darkness, while those who illuminate it, only because of the *dzahir* of *al-Ḥaq* (God) to it, then whoever sees universe, then does not see Allah in it, or near it, or before, or after, then indeed he has been dazzled by *nūr* (light), and closed for him the sun (*nūr*-light) *ma'rifat* by the thickness of these universe objects."[19]

Syarah (explanation) of this *ḥikmah* contain a command to

[18] Achmad Bisri, *Membaca Ayat-Ayat*…, p. 81

[19] Salim Bahreisy, *Terjemah Al-Hikam (Pendekatan Abdi Pada Khaliqnya)*, (Surabaya: Balai Buku, 1980), p. 27

mankind that when humans see and pay attention to the universe, there they should see the greatness and power of Allah in it. It is God (Allah) who reveals this universe to humans from what was originally dark. So humans who cannot see His greatness in nature, they are dazzled by light as if they see a bright light, then they think there is no ball that creates that light. So the whole universe is like light, while what is real (actually) seen is solely the power of the Essence of Allah SWT.[20]

Therefore, it is included in God's commandment that humans are told to pay attention to the nature of His creation, the purpose of which is to remember His greatness and power, as in the sūrah Yūnus verse 102 قُلِ انْظُرُوْا مَا ذَا فِى السَّمٰوٰتِ وَا لْاَ رْضِ (“Say: “Pay attention to what is in the heavens and on the Earth !”) and also *al- Ḥikam* in *ḥikmah* number 126:[21]

اَمَرَكَ فِي هٰذِهِ الدَّارِ بِاالنَّظَرِ فِي مُكَوَّناَتِهِ وَ سَيَكْشِفُ لَكَ فِيْ تِلْكَ الدَّارِ عَنْ كَمَالِ ذاَتِهِ

Meaning:

“Allah orders you fellow living in this world to pay attention to the nature of His creation (think about creatures in this world so that it makes you remember Allah). And later in the Hereafter Allah will show you the perfection of His Essence”[22]

In this *ḥikmah* Allah himself ordered humans to pay attention to nature so that humans would remember Him. So after some of these explanations by understanding the natural theology of integration by Ian G. Barbour, Zaglul an-Najjār seeks to introduce the greatness and power of Allah SWT through human attention to nature which in the context of this research is the scientific sign contained in the sūrah aż-Żāriyāt verse 47 namely expanding universe phenomenon. So the main purpose and

[20] Salim Bahreisy, *Terjemah Al-Hikam*…, p. 27
[21] Salim Bahreisy, *Terjemah Al-Hikam*..., p. 102
[22] Salim Bahreisy, *Terjemah Al-Hikam*..., p. 102

goal that Zaglul an-Najjār wants to convey is not to study nature in order to be able to explore and make use of his knowledge, but more than that, namely to awaken and understand humans how powerful Allah is in creating all of this with such a solid and complex sky arrangement. the size of the celestial bodies that are so large and the vastness of the universe is unimaginable.

In this case, there is a suitable lesson from *al- Ḥikam*, in *ḥikmah* number 151:

اَبَاحَ لَكَ اَنْ تَنْظُرَ ماَ فِي الْمُكَوّناَتِ وَمَا اَذِنَ لَكَ اَنْ تَقِفَ مَعَ ذَوَاتِ

الْمُكَوَّناَتِ: قُلِ انْظُرُوْا مَاذَا فِي السَّمٰوَاتِ ؟ فَتَحَ لَكَ بَاب الْاَفْهَامِ وَلَمْ يَقُلْ: اُنْظُرُوْا

السَّمٰوَاتِ لِاَنْ لاَ يَدُلَّكَ عَلَى وُجُوْدِ الْاَجْرَامِ

Meaning:

"Allah allows you to see the nature around you (creatures), but Allah does not allow you to stop at objects in this nature (creatures). As the word of God: say: pay attention to what is in the sky. May Allah open you to understanding, Allah does not say: pay attention to the sky. So as not to show you the existence of those things"[23]

This *ḥikmah* indirectly can be understood that God commands humans not to get caught up in "the beauty of His creation" because the main purpose of paying attention to, contemplating and meditating on universe is for humans to submit, obey, marvel at and love the creator of universe.

From the concept of this integration, it can be understood that the Qur'ān and science basically help humans to reaching the truth (to find God existence) by reasoning through his creation, namely the universe

[23] Achmad Sunarto, *Terjemah Al-Hikam Ibn 'Athaillah*, (Surabaya: Mutiara Ilmu, 2014), p. 214

and its contents and also overcoming the problems of human life so that if humans can utilize both of them, benefits will be created that are greater than what is felt now.

Yusuf Musa said that the Qur'ān does not conflict with science, especially natural science with an understanding that is in line with the teachings of aqidah. The greatest advantage of Islām is that it opens opportunities for Muslims to seek and develop knowledge. Not that it makes them lazy to seek knowledge and forbids expanding research and reasoning because they think that they already have all kinds of knowledge. Muslims are urged by the Qur'ān to advance in life by studying various types of knowledge in accordance with their position as caliphs on Earth.[24]

[24] Achmad Bisri, *Membaca Ayat-Ayat*…, p. 90

CHAPTER V
CONCLUSION

A. Conclusion

Based on the presentation of the data in the previous chapters and research by the author so that an analysis of the problem formulation can be produced. So it can be concluded that Zaglul an-Najjār interpretation of the expanding universe theory according from perspective of Ian G. Barbour:

1. Zaglul an-Najjār method in interpreting the expanding universe theory based on the sūrah aż-Żāriyāt verse 47 is: sourced from research that has been carried out and tested for years by scientists among them Alexander Friedmann, Abbe George Lemaitre, Edwin P. Hubble, Willem De Sitter, Arno Penzias, Slipher, and other also by looking at the latest scientific developments. The type of his interpretation is bir-ra'yi because it uses scientific reasoning *ijtihād*. Then the method he used is *tahlilī* and *mauḍū'i* while his is interpretation style is *'ilmī* style

2. Analysis of his interpretation according from perspective of Ian G. Barbour can be included in integration typology especially in nature theology and systematic syntesis where with this understanding will lead to the logic that the universe with all its beauty and complexity must not have happened suddenly, then human will think that all these realities have something that created them where in religion is called God which is transendent (Allah SWT). Then by harmonizing the relationship between religion and science (systematic syntesis), it offers to build an ideal world life and solving human problems also creating "bridges" so that both can be made human beings to helping them in their spiritual and social relationship with fellow human beings, living things other and their relation to the universe.

B. Suggestion

The author realizes that this thesis is still far from the word "excellent." Therefore, the author ask for constructive criticism and suggestions from readers for improvement in the future.

After the preparation of this thesis, the writer really really hopes that in the future there will be discussion and studying regarding the *kauniyyah* verses in any themes. The Qur'ān itself commands humans to paying attention and study nature so that they can take lessons and wisdom because by examing the process of creating universe, his contents and everything in it, every human being will find God. All this existence that we see or what we can't see there must be a creator (its impossible to believe that all of this created from nothingness). So the aim is to make human not only believing God from his heart, but also logically through reasoning using help of science knowledge based on the verse of Qur'ān, Hadith also scholar arguments.

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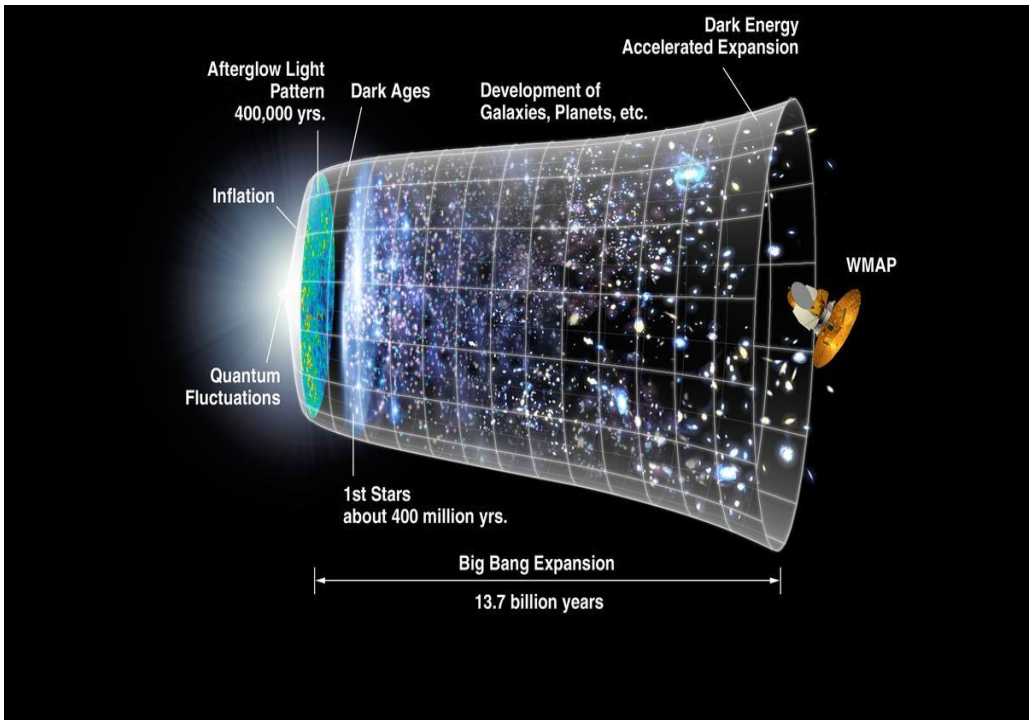
ATTACHMENTS

Visualization of the expanding universe theory that starts from a central point



Depiction of chronology after the Big Bang then expanding (expanding of universe) creating time and space and outer space objects