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Cosmos as a Divine Text: Reconstruction of the Epistemology of Qur'anic Interpretation Based on Modern Astrophysics

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Abstract

This article discusses the cosmos as a divine text by reconstructing the epistemology of Qur'anic interpretation in light of modern astrophysics. This approach emphasizes the integration of revelation, empirical observation, and philosophical reflection in understanding the phenomena of the universe. By examining Qur'anic cosmological verses hermeneutically and linking them to contemporary astrophysical discoveries, such as stellar evolution, black holes, cosmic background radiation, and the large-scale structure of the universe. The method used is qualitative with a philosophical hermeneutic approach model, where the primary sources are cosmological verses such as (Q.S. Ali 'Imran: 190), (Q.S. Yasin: 40), (Q.S. al-Dzariyat: 47), (Q.S. al-Anbiya': 30), (Q.S. al-Qamar: 49), (Q.S. al-Hadid: 4), to (Q.S. al-Furqan: 59). The secondary sources are journals, books, or other relevant research. After the data is collected, a comparative thematic content analysis is conducted using a triangulation model to ensure data validity, and conclusions are drawn. The study's results indicate that revelation and science complement each other in building a holistic, transdisciplinary, and relevant understanding of modern science. The proposed Integrative Cosmological Interpretation Model combines the bayani (textual), burhani (rational-empirical), and irfani (spiritual-intuitive) approaches, so that Qur'anic interpretation is not only descriptive, but also prescriptive, philosophical, and ethical. The epistemic and philosophical implications of this research open new perspectives in Qur'anic studies, strengthen the dialogue between science and revelation, and emphasize the cosmos as a medium for human intellectual and spiritual reflection.

Keywords: *Cosmos, Divine Texts, Reconstruction, Quranic Interpretation, Astrophysics*

Abstrak

Artikel ini membahas kosmos sebagai teks ketuhanan melalui rekonstruksi epistemologi tafsir al-Qur'an yang berbasis astrofisika modern. Pendekatan ini menekankan integrasi antara wahyu, observasi empiris, dan refleksi filosofis dalam memahami fenomena alam semesta. Dengan mengkaji ayat-ayat kosmologis Qur'ani secara hermeneutik, serta mengaitkannya dengan penemuan astrofisika kontemporer seperti evolusi bintang, lubang hitam, radiasi kosmik latar, dan struktur skala besar alam semesta. Metode yang digunakan adalah kualitatif dengan model pendekatan hermeneutika filosofis dimana sumber primernya ayat-ayat kosmologis seperti (Q.S. Ali 'Imran: 190), (Q.S. Yasin: 40), (Q.S. al-Dzariyat: 47), (Q.S. al-Anbiya': 30), (Q.S. al-Qamar: 49), (Q.S. al-Hadid: 4), hingga (Q.S. al-Furqan: 59). Sedangkan sumber sekundernya adalah jurnal, buku, ataupun penelitian lain yang relevan. Setelah data terkumpul maka dilakukan analisis content secara tematik komperatif disertai model triangulasi agar data-data yang diperoleh itu valid, dan terakhir dilakukan penarikan kesimpulan. Hasil penelitian menunjukkan bahwa wahyu dan sains saling melengkapi dalam membangun pemahaman yang holistik, transdisipliner, dan relevan dengan sains modern. Model Kosmologi Tafsir Integratif yang diusulkan memadukan pendekatan bayani (teksual), burhani (rasional-empiris), dan irfani (spiritual-intuitif), sehingga tafsir Qur'ani tidak hanya bersifat deskriptif, tetapi juga preskriptif, filosofis, dan etis. Implikasi epistemik dan filosofis penelitian ini membuka perspektif baru dalam studi al-Qur'an, memperkuat dialog antara ilmu pengetahuan dan wahyu, serta menekankan kosmos sebagai medium refleksi intelektual dan spiritual manusia.

***Kata Kunci**: Kosmos, Teks Ketuhanan, Rekonstruksi, Tafsir al-Qur'an, Astrofisika*

A. Introduction

The cosmos is a universal phenomenon containing extraordinary structure, dynamics, and order. From the perspective of the Qur'an, the universe is not merely a physical space observable through scientific instruments, but also an epistemic vehicle that holds divine messages (ayat kauniyyah) for humanity[1]. The Qur'an consistently emphasizes the connection between the creation of the universe and the delivery of divine guidance, as stated in cosmological verses such as "Inna fi khalqi al-samawati wa al-ardh…" (QS Ali 'Imran: 190), which emphasizes that observation of the universe is a means of spiritual and intellectual reflection[2].

[1] Syed Muhammad Naquib Al-Attas, The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education (Kuala Lumpur: International Institute of Islamic Thought and Civilization (ISTAC), 1993), p. 42.

[2] Seyyed Hossein Nasr, An Introduction to Islamic Cosmological Doctrines (Albany: New York Press, 1993), p. 7.

The development of modern astrophysics has radically changed human understanding of the universe. Edwin Hubble's discovery of the expansion of the universe[3], cosmic background radiation by Penzias and Wilson[4], and the discovery of black holes and large galactic structures[5] show that the universe is not a static entity but is dynamic, complex, and full of mathematical regularity.[6] These findings open up new epistemic opportunities to interpret the cosmological verses of the Qur'an in an integrative manner.

However, the relationship between revelation and the cosmos is often confronted with an epistemic dichotomy. Classical interpretations tend to emphasize symbolic or theological reading, while modern science demands empirical verification.[7]Some modern interpretations are trapped in scientific reductionism by interpreting verses literally, while some traditional interpretations ignore the relevance of contemporary science. This situation indicates the need to reconstruct the epistemology of interpretation to harmoniously negotiate revelation and scientific knowledge[8].

The cosmic phenomenon in the Qur'an serves not only as an object of observation but also as a text containing transcendental meaning. Verses such as "wa kullun fi falakin yasbahun" (QS Yasin: 40) emphasize the regularity of the rotation of celestial bodies as evidence of God's greatness. Thus, the cosmos can be understood as an open divine text that can be "read" through empirical observation, philosophical thought, and spiritual reflection[9].

In Islamic epistemology, reading the cosmos and revelation requires integrating three dimensions: bayani (textual analysis), burhani (rational and empirical analysis), and irfani (intuitive and spiritual dimensions). This approach enables humans to understand the order

[3] Edwin Hubble, "A Relation between Distance and Radial Velocity among Extra-Galactic Nebulae," Proceedings of the National Academy of Sciences 15, no. 3 (1929): 168–173, https://doi.org/https://doi.org/10.1073/pnas.15.3.168.

[4] Arno A Penzias and Robert W Wilson, "A Measurement of Excess Antenna Temperature at 4080 Mc/S," The Astrophysical Journal 142, no. 1 (1965): 419–421, https://doi.org/10.1086/148307.

[5] Stephen Hawking, A Brief History of Time (New York: Bantam Books, 1988), p. 29.

[6] Max Tegmark, Our Mathematical Universe: My Quest for the Ultimate Nature of Reality (New York: Knopf, 2014), p. 141.

[7] Ismail Raji Al-Faruqi, Islamization of Knowledge: General Principles and Workplan (USA: International Institute of Islamic Thought (IIIT), 1982), p. 72.

[8] Seyyed Hossein Nasr, The Garden of Truth: Knowledge, Love, and Action (New York: HarperCollins, 2007), p. 169.

[9] Mohammed Arkoun, Rethinking Islam: Common Questions, Uncommon Answers (New York: Routledge, 1994), p. 133. https://doi.org/https://doi.org/10.4324/9780429304651.

of the universe without losing the normative meaning of the Qur'an's [10]verses. Thus, reading the cosmos becomes part of a holistic intellectual and spiritual activity.

The urgency of this research is growing with advances in astronomical science and technology. Recent data from the James Webb Space Telescope, gravitational-wave observations, and stellar-evolution modeling are providing new insights into the formation, dynamics, and order of the cosmos.[11] This knowledge demands a Qur'anic interpretation that can absorb empirical findings without compromising theological and philosophical values, thereby giving rise to the need for an epistemology of interpretation grounded in modern astrophysics.

The research problem formulation in this study centers on three main questions: how the cosmos is understood as a divine text, how modern astrophysical phenomena can enrich cosmological interpretation, and what interpretive epistemology enables a harmonious integration of revelation and science. The research objectives include developing an Integrative Interpretive Cosmology model that places revelation and the cosmos in a dialogical, critical, and productive relationship.

This research's contributions are expected to include enriching the interdisciplinary exegetical literature, offering a methodology for reading cosmological verses that avoids reductionism, and offering a new understanding of the relationship between revelation and cosmic reality. Thus, this study is relevant not only to the development of Qur'anic scholarship and exegesis but also to contemporary Islamic epistemological discourse and science-religion integration.

B. Research Method

This study uses a qualitative approach with a philosophical hermeneutic orientation to understand the cosmos as a divine text from the perspective of the Qur'an. This approach allows for a reading of cosmological verses not only as linguistic texts, but also as living entities, interacting with human experience, and subject to reflection through modern scientific observation.[12] This method combines textual (bayani), rational-empirical (burhani), and spiritual-intuitive (irfani) analyses, resulting in a holistic, critical, and

[10] Masud Al-Taftazani, Sharh Al-Maqasid Fi Ilm Al-Kalam (Cairo: Dar al-Kutub al-'Ilmiyyah, 2000), p. 229.
[11] Ahmad Dallal, Islam, Science, and the Challenge of History (London: Yale University Press, 2010), p. 118.
[12] Hans Georg Gadamer, Philosophical Hermeneutics (Berkeley: University of California Press, 1976), p. 98.

transdisciplinary interpretation that integrates theological, philosophical, and modern scientific perspectives.[13]

The research data were obtained through a review of relevant primary and secondary literature. Primary literature includes Qur'anic verses containing cosmological references, classical and modern commentaries, and works of Islamic philosophy and kalam that discuss the relationship between revelation and the cosmos. Secondary literature includes scientific journals, modern astrophysics books, and publications on cosmic phenomena such as the expansion of the universe, the evolution of stars, black holes, and the large-scale structure of the universe.[14] The analysis was conducted using thematic and comparative content analysis to interpret the epistemological relationship between revelation and cosmic phenomena.

The analysis process is carried out iteratively and reflectively, starting with the identification of cosmological verses, the classification of themes, and comparisons with modern astrophysical phenomena, culminating in a philosophical synthesis that combines theological and scientific meanings.[15] This approach prioritizes internal validity through source triangulation and an integrative epistemological framework, so that the resulting interpretation is not only academically relevant but also enriches human spiritual and epistemic understanding of the cosmos as a manifestation of God's signs.

C. Results and Discussion

Cosmos as a Divine Text in the Qur'anic Perspective

The Qur'an emphasizes that the entire universe is a manifestation of God's greatness (ayat kauniyyah), and that it contains moral, epistemic, and metaphysical meaning for humans. Verses such as "Inna fi khalqi al-samawati wa al-ardh…" (QS Ali 'Imran: 190) and "wa kullun fi falakin yasbahun" (QS Yasin: 40) show that observing the cosmos is not only a scientific activity, but also a spiritual activity that requires deep reflection and understanding.[16]

[13] Paul Ricoeur, Interpretation Theory: Discourse and the Surplus of Meaning (Texas: Texas Christian University Press, 1976), p. 83.
[14] Hans-Georg Gadamer, Truth and Method (New York: Bloomsbury Revelations, 2013), p. 237.
[15] Ismail Raji Al-Faruqi, Islamization of Knowledge (Bandung: Pustaka Publisher, 2003), p. 71.
[16] Emilia Aleksi and Veera Leevi, "Discovering the Marvels and Intricacies of Physics and Astronomy: A Journey Through Fundamental Principles and Cosmic Phenomena," Fusion of Multidisciplinary Research, An International Journal 3, no. 2 (2022): 342–353, https://doi.org/https://doi.org/10.63995/ZTDA2027.

The cosmos, as understood in the Qur'an, possesses an ordered structure, consistent regularity, and observable dynamics. The existence of stars, planets, galaxies, and other cosmic phenomena serves as a symbol of divine order, inviting humans to develop their reason and spirituality.[17] This phenomenon confirms that the universe is not a random entity, but rather an open text that can be read and contemplated.

The Qur'anic text does not limit the cosmos to merely physical functions but rather places it within an integral epistemic context. Verses about orbits, rotation, and starlight demonstrate that the order of the universe serves as a means of understanding God's universal principles, both morally and intellectually.[18] This approach encourages readers to read nature as a dialogical vehicle between humans and God.

In classical interpretations, as explained by al-Razi and al-Alusi, the cosmos is seen as a symbol of universal divine principles. They emphasize that observation of natural phenomena is a form of intellectual worship that aligns with the principles of Islamic epistemology, in which revelation and reason are inseparable.[19].

Contemporary approaches adopt the same principles but emphasize the importance of integration with modern science. Hubble's discoveries about the expansion of the universe, the cosmic background radiation, and the modeling of the large-scale structure of the universe provide relevant empirical data for interpreting cosmological verses.[20] Thus, the cosmos can be understood as a text that can be read through the interaction between revelation, reason, and scientific observation.

Moreover, the cosmos as a divine text emphasizes the principle of transhistorical order. The laws of physics, planetary motion, and stellar evolution demonstrate the existence of consistent natural laws, which in the Qur'anic context signify a rational and harmonious order of creation.[21]. Modern cosmological interpretations attempt to interpret this order as a manifestation of divine ordinance, in which empirical phenomena become not only objects of science but also vehicles for spiritual reflection.

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[17] Belay Sitotaw Goshu and Muhammad Ridwan, "Exploring the Mystique of Seven: An Interdisciplinary Analysis of Its Significance in Astronomy, Culture, and Human Life," Lakhomi Journal Scientific Journal of Culture 5, no. 1 (2024): 19–33, https://doi.org/https://doi.org/10.33258/lakhomi.v5i1.1028.

[18] Michael Hardwick, "What the Universe Tells Us About God and Christian Apologetics" (Regent University, 2020), p. 18.

[19] Fakhr al-Din Al-Razi, Mafatīḥ*Al-Ghaib*(Beirut: Dar Al-Fikr, 1999), p. 229.

[20] Hubble, "A Relation between Distance and Radial Velocity among Extra-Galactic Nebula…, p. 63."

[21] Hawking, A Brief History of Time, p. 112.

The epistemic integration of revelation and the cosmos also encourages the development of a new epistemology of interpretation, which combines the bayani (textual), burhani (rational-empirical), and irfani (spiritual-intuitive) approaches. This model allows cosmological interpretation to be not only descriptive but also prescriptive, providing ethical, philosophical, and spiritual guidance for humans in understanding the universe.[22]

Conceptually, the cosmos as a divine text affirms that revelation and natural phenomena complement each other. Empirical phenomena serve as signs that guide the reading of the revealed text, while the revealed text provides a framework of values and an orientation of meaning for scientific observation.[23]. Thus, the cosmos can not only be "read", but also "interpreted" in the context of integrative and transdisciplinary Qur'anic epistemology.

This cosmological interpretation also opens space for interdisciplinary learning between the natural sciences, philosophy, and theology. For example, understanding black holes, supernovae, and cosmic background radiation can be linked to verses about light, creation, and universal order, thus broadening insight into the relationship between empirical phenomena and Qur'anic symbolism.[24]. Thus, this subchapter emphasizes that the cosmos, as a divine text, is an epistemic concept that enables a holistic, integrative, and dialogical reading of the Qur'an. Cosmic phenomena serve as a vehicle for intellectual, spiritual, and philosophical reflection while also contributing to the development of an epistemology of interpretation relevant to modern science.

Modern Astrophysical Phenomena and Their Significance for Qur'anic Interpretation

Modern astrophysics has provided a new perspective on the cosmos that is relevant to Quranic interpretation. Edwin Hubble's discovery of the expansion of the universe in 1929[25] opened the insight that the universe is dynamic and has a definite beginning. This discovery is in line with the verses of the Qur'an which emphasize that the universe was created with a

[22] Mahmud al-'Allama Abu l-Fadl Sihab al-Din al- Alusi Al-Bagdadi, Ruh Al-Ma'Ani Fi Tafsir Al-Qur'an Al-'Azim Wa Al-Sab' Al-Matsani (Saudi Arabia: Dar Ihya al-Turath al-'Arabi, 2003), p. 81.
[23] Gert JC Jordaan, "Cosmology in the Book of Revelation," In Die Skriflig 47, no. 2 (2013): 1–8, https://hdl.handle.net/10520/EJC144552.
[24] Qayyum Akhtar, "A Critical Review of the Qur'anic Interpretation of the Universe and Modern Scientific Thought," Pakistan Journal of Islamic Philosophy 7, no. 3 (2025): 1–12.
[25] Hubble, "A Relation between Distance and Radial Velocity among Extra-Galactic Nebulae..., p. 79."

certain order and purpose ("wa al-sama' banaynaha bi aydin wa inna lamuusiu'n", (QS al-Dzariyat: 47).

Observations of cosmic background radiation by Penzias and Wilson in 1965[26] confirmed the existence of traces of the early formation of the universe. This finding provides empirical data that can be linked to the Qur'anic verses that mention the creation of the heavens and the earth from the same elements or from "water" and "light" ("A wa lam yarallazine kafaru annas-samawati wal-ar*ḍa kanata ratqan fa fataqnahuma, wa ja'alna minal-ma`i kulla syai`inḥayy…"*(QS al-Anbiya': 30). This shows the correspondence between revelation and empirical phenomena without having to interpret the verse literally, but rather conceptually and epistemically.

Further developments in astrophysics, such as the discovery of galaxies, nebulae, and supernovae, provided a picture that the cosmos is complex, dynamic, and full of mathematical regularity.[27] Contemporary Qur'anic interpretation can utilize these findings to interpret verses that emphasize the harmony and order of the universe as a manifestation of God's greatness.[28].

The phenomena of black holes, Hawking radiation, and dark energy expand human understanding of the extreme cosmos.[29] The verses about light (nur) and darkness (zulumat) in the Qur'an can be read as both symbolic and analogous to these cosmic phenomena, so that the interpretation remains relevant to modern scientific discoveries without diminishing its theological significance. In the context of the epistemology of interpretation, recent findings in modern astrophysics require readers of the Qur'an to adopt a cross-disciplinary perspective.[30] Empirical observation does not contradict the revealed text but rather enriches human understanding of the principles of divinity, the order of nature, and the purpose of creation. This reflects the principle of integration between bayani (text), burhani (rational-empirical), and irfani (spiritual-intuitive).

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[26] Penzias and Wilson, "A Measurement of Excess Antenna Temperature at 4080 Mc/S..., p. 420."

[27] Timothy M Heckman and Philip N Best, "The Coevolution of Galaxies and Supermassive Black Holes: Insights from Surveys of the Contemporary Universe," Annual Review of Astronomy and Astrophysics 52, no. 1 (2014): 589–660, https://doi.org/https://doi.org/10.1146/annurev-astro-081913-035722.

[28] Seyyed Hosein Nasr, Science and Civilization in Islam (2nd Ed.) (United Kingdom: Harvard University Press, 1968), p. 164.

[29] Karen Armstrong, Islam: A Short History (New York: Modern Library, 200AD).

[30] Rizwan Haider, Abdul Wahid, and Adnan Shahzad, "The Intersection of Quran and Science: Analyzing the Methodologies of Two Contemporary Exegetes," Review Journal of Social Psychology & Social Works 2, no. 1 (2024): 112–38, https://doi.org/https://doi.org/10.71145/rjsp.v2i1.43.

For example, observations of the movement of galaxies and star systems reinforce the understanding that every cosmic entity is subject to consistent and rational laws, in accordance with the Qur'anic verse that states "*Inna kulla shay'in kholaqnahu bi qadar*" (QS al-Qamar: 49). This confirms the order of the cosmos as a reflection of divine principles that can be observed and understood scientifically.[31]. Furthermore, astrophysical phenomena also open the possibility of reinterpreting verses previously considered purely symbolic. For example, the concept of the expansion of the universe can be linked to an understanding of continuous creation and the regularity of natural law.[32]. Such a contemporary interpretation demands a balance among literal, contextual, and empirical meanings.

Modern astrophysics provides not only empirical data but also philosophical and mathematical concepts that enrich interpretation. The concepts of the multiverse, dark energy, and relativity broaden intellectual horizons, allowing Qur'anic interpretation to emphasize the universality of revelation and the interconnectedness of empirical and spiritual reality.[33] The importance of astrophysical phenomena in modern Qur'anic interpretation is also evident in the integration of cosmology with ethics and theology. Observation of the cosmos confirms the order and harmony of divine law, which in turn strengthens human ethical and spiritual awareness.[34]. Thus, cosmos-based interpretation is not only descriptive, but also prescriptive.

Thus, the above explanation confirms that modern astrophysics provides an empirical and philosophical foundation for reconstructing Qur'anic interpretation, making the cosmos a divine text that can be read integratively. Empirical phenomena and modern scientific principles serve as tools to broaden, deepen, and modernize Qur'anic understanding without diminishing the transcendental meaning of revelation.

[31] Muin-ud-din Ahmad Khan, "The Concept of Knowledge in the Quran," Humanomics 18, no. 3 (2002): 26-41., https://doi.org/https://doi.org/10.1108/eb018874.
[32] Peter Harrison, "The Development of the Concept of Laws of Nature," in Creation (New York: Routledge, 2018), 13–36.
[33] G. Y Abbasova, "THE INFLUENCE OF ANCIENT KNOWLEDGE ON THE FORMATION OF HUMAN SELF-CONSIOUSNESS," Journal of Philosophy, Culture & Political Science 87, no. 1 (2024), https://doi.org/10.26577/jpcp.2024.v.87.i1.02.
[34] Peter Abiodun OJO, "A Philosophical Evaluation of the Core Principles of Yoruba Beliefs Regarding the Relationships between God, Humanity and the Cosmos," IGWEBUIKE: African Journal of Arts and Humanities 10, no. 6 (2024), https://acjol.org/index.php/iaajah/article/view/6084.

The Evolution of Stars, Black Holes, and the Structure of the Universe from a Quranic Perspective

The Qur'an presents a picture of the cosmos as a harmonious and orderly system, in which every entity has a function and purpose. The phenomena of stars, planets, and other celestial objects can be understood as manifestations of divine order that accompany the principles of creation (khalq) and maintenance (tadbir) of the universe.[35]. The evolution of stars, which begin as nebulae to become primary stars, and then end as supernovae or black holes, provides a conceptual analogy for the Qur'anic understanding of the dynamics of creation and the order of the cosmos.[36]. This process illustrates the principle of the universality of natural law, which indirectly confirms verses such as QS al-Hadid 4.

Black holes, as cosmic extremes, emphasize human limitations in understanding the totality of the universe, while also demonstrating the greatness of God, who regulates the laws of gravity and energy.[37] This phenomenon can be linked to verses about light and darkness, which symbolize the metaphysical principle of divine order in space and time. The large-scale structure of the universe, including spiral galaxies, galaxy clusters, and cosmic filaments, reflects a geometric order consistent with the Qur'anic verses on the order of the heavens and the earth, as stated in Surah al-Furqan, verse 59.[38] This regularity is the meeting point between revelation and modern science, where empirical observation can enrich cosmological interpretation.

The evolution of stars also offers philosophical insights into time, change, and the continuity of creation. The Qur'an emphasizes that everything operates according to divinely ordained laws, which can be understood through cosmic phenomena. This interpretation encourages humans to understand the cosmos as a dynamic text that demands reflection and scientific inquiry.[39]. Extreme cosmic phenomena, such as supernovae and gamma-ray bursts,

[35] Qari Abdul Basit and et al, "The Creation of Moon: Comparative Analysis between Modern Sciences and Religious Studies," Journal of Islamic Thought and Civilization 11, no. 2 (2021): 327–43, https://doi.org/https://doi.org/10.32350/jitc.112.18.

[36] Alya Fathi Muhammad Hasibuan, Hizami Sabil, and Abu Yazid Raisal, "Science in the Qur'an and Its Impact on the Study of Astronomy," AL-AFAQ: Jurnal Ilmu Falak Dan Astronomi 6, no. 1 (2024): 53–63, https://doi.org/https://doi.org/10.20414/afaq.v6i1.9969.

[37] Mark P Fusco, "Black Hole Entropy and the Holographic Universe," in The Physics and Metaphysics of Transubstantiation (Cham: Springer International Publishing, 2023), 221–245.

[38] Suparno Suparno, "FROM SINGULARITY TO SKYWARD LIFE: THE QUR'AN'S SCIENTIFIC WONDERS EXPLAINED," RGSA – Revista de Gestão Social e Ambiental 17, no. 2 (2023): 1–23, https://doi.org/https://doi.org/10.24857/rgsa.v17n2-031.

[39] Zlatica Plašienková, "Cosmos and Humanity: Historical and Contemporary Paradigms of Understanding," Human Affairs 33, no. 2 (2023): 151–57, https://www.degruyterbrill.com/document/doi/10.1515/humaff-2023-0034/html.

provide a new perspective for the Qur'anic interpretation of God's power and the beauty of the order of the cosmos.[40]. The verses that speak about the creation and circulation of celestial bodies can be understood as both metaphorical and empirical instructions, in which the laws of nature work harmoniously without contradicting the transcendental principles of revelation.

From the perspective of epistemological interpretation, this phenomenon underscores the importance of integrating the bayani-burhani-irfani approaches. By empirically understanding the evolution of stars and cosmic structures, humans can interpret Qur'anic verses not only symbolically but also scientifically, so that interpretation remains relevant in a modern, transdisciplinary context.[41] The integration of astrophysical observations and cosmological verses also opens the possibility of developing interdisciplinary interpretations that combine philosophy, theology, and science. This broadens insight into the relationship between empirical phenomena, the principles of divine law, and the ethical values embodied in revelation.

Understanding stellar evolution and the structure of the cosmos also has implications for human spiritual reflection. Awareness of the order of the universe affirms that cosmic phenomena are not merely material but a means of understanding God's greatness and will, making reading the cosmos both an epistemic and a spiritual activity.[42]. Thus, the explanation above emphasizes that the evolution of stars and black holes, and the structure of the universe, can serve as empirical texts that enrich Qur'anic interpretation. The cosmos is not merely an object of scientific observation, but a divine text that can be read philosophically, spiritually, and scientifically, in line with the epistemological principles of integrative interpretation.

Integration of Revelation and Science: An Integrative Interpretive Cosmological Model

The integration of revelation and science presents both an epistemic challenge and a philosophical opportunity for the development of contemporary Qur'anic interpretation.

[40] Alessandro Mantini, "The Phenomenon of Emergence as a Key to Deepening the Mystery of the Cosmos, for Cross Disciplinary and Humble Scientific Research," Religions 15, no. 7 (2024): 860, https://doi.org/10.3390/rel15070860.

[41] Adrien Chauvet, "Cosmographical Readings of the Qur'an," American Journal of Islam and Society (AJIS) 40, no. 1–2 (2023): 8.

[42] Raúl Fernández-Cobos, "The Concept of the Universe in Physical Cosmology," Journal for General Philosophy of Science 52, no. 4 (2021): 523-542., https://doi.org/https://doi.org/10.1007/s10838-021-09561-7.

Cosmic phenomena observed through modern astrophysics provide empirical data that can serve as a reference for understanding cosmological verses.[43] This approach emphasizes that revelation and science are not in conflict but rather synergize to build a holistic understanding of the cosmos as a divine text.

The proposed Integrative Cosmological Model of Interpretation combines three epistemic principles: bayani (textual), burhani (rational-empirical), and irfani (spiritual-intuitive). The bayani approach ensures that interpretation remains faithful to the verse's context and linguistic meaning, while burhani uses empirical observation and scientific theory, and irfani emphasizes spiritual reflection and the verse's transcendental dimension. This approach allows cosmological interpretation to be not only descriptive but also prescriptive, providing ethical and philosophical guidance in understanding the universe.[44] For example, observations of stellar evolution or cosmic background radiation can be linked to verses about creation, order, and the interconnectedness of the universe, enabling humans to understand universal divine principles.

The integration of revelation and science also demands a reflective methodology, in which the interpreter emphasizes not only empirical evidence but also historical, cultural, and spiritual contexts. Extreme cosmic phenomena, such as black holes or supernovae, can be interpreted as manifestations of complex divine laws, without losing their transcendental meaning. This model emphasizes a productive dialogue between the revealed text and empirical data. For example, Hubble's discovery of the expansion of the universe can be linked to verses that emphasize continuous creation, thereby supporting a cosmological interpretation that emphasizes the principle of order and continuity in creation.[45]This approach reduces the risk of scientific reductionism or textual dogmatism and encourages holistic understanding.

Furthermore, this integration creates space for the development of a transdisciplinary epistemology in which philosophy, theology, and the natural sciences interact. The concepts of the multiverse, dark energy, and relativity can serve as conceptual analogies for understanding cosmological verses, so that interpretation remains relevant to the

[43] Steven W Allen, August E Evrard, and Adam B. Mantz, "Cosmological Parameters from Observations of Galaxy Clusters," Annual Review of Astronomy and Astrophysics 49, no. 1 (2011): 409–470, https://doi.org/https://doi.org/10.1146/annurev-astro-081710-102514.

[44] George Gale and Fohn R. Urani, "Philosophical Aspects of Cosmology," in Cosmology (France: CRC Press, 2023), 547–568.

[45] Nada K Kakabadse and Peter Steane, "Meaning and Interpretation: Insights and Discourse," Journal of Management History 16, no. 3 (2010): 346–366, https://doi.org/https://doi.org/10.1108/17511341011051243.

development of modern science without diminishing the transcendental meaning of revelation. The Integrative Cosmological Interpretation Model also emphasizes the importance of epistemic validity through source triangulation.[46] The interpretation is supported by Qur'anic verses, scientific theory, and philosophical reflection, resulting in a balanced understanding between the empirical and the metaphysical. This ensures that the interpretation is not speculative but remains critical, logical, and spiritual.

By applying this model, the cosmos can be read as a living, dynamic text in which natural phenomena and revelation complement each other. Empirical observation reinforces the meaning of verses, while revelation provides a framework of values and ethical principles for scientific observation. This approach enables humans to understand the cosmos in a more comprehensive and transdisciplinary manner. This model also facilitates education and the development of contemporary Islamic knowledge by emphasizing the integration of revelation and science, enabling new generations to understand the Qur'an not only as a historical or moral text but also as an epistemic guide relevant to modern science and cosmological challenges.

Thus, the above statement confirms that the integration of revelation and science through the Integrative Cosmology of Interpretation model provides a new methodological and philosophical framework. This model enables Qur'anic interpretation to read the cosmos holistically, scientifically, and spiritually, making it a revelation that remains relevant to the development of modern science and human philosophical reflection.

Philosophical and Epistemic Implications of the Cosmos as a Divine Text

Understanding the cosmos as a divine text has profound philosophical implications, as it reconciles empirical phenomena with revelation, reason, and spiritual intuition. This emphasizes that the universe is not merely a physical object, but also an epistemic medium that enables humans to understand divine principles rationally and transcendentally. Epistemologically, this concept encourages a holistic interpretation of the Quran. Interpretation focuses not only on textual meaning but also on reading natural signs as

[46] Rizal Fathurrohman, Abdul Munip, and Muh Wasith Achadi, "The Epistemology of Riyāḍah in Pesantren: A Philosophical Foundation for Islamic Intellectual Formation," Scaffolding: Journal of Islamic Education and Multiculturalism 7, no. 3 (2025): 301–120.

manifestations of divine laws.[47]. Cosmic phenomena such as stellar evolution, black holes, and cosmic background radiation become vehicles for epistemic reflection that combine scientific observation and spiritual understanding.

Another philosophical implication is the strengthening of the principles of order and harmony in the universe. Quranic verses emphasizing the order of heaven, earth, and all creatures serve as the foundation for developing a transdisciplinary Islamic cosmological philosophy that bridges science, ethics, and theology within an integrative framework. With this approach, natural phenomena and Quranic verses complement each other in constructing an epistemic narrative.[48] Empirical observations serve as supporting evidence that enriches the meaning of revelation, while revelation provides a value orientation and purpose for scientific interpretation. This relationship encourages humans to understand the cosmos as a living, dynamic, and philosophically meaningful text.

The cosmos as a divine text also opens space for metaphysical reflection on human limitations and God's greatness. Extreme cosmic phenomena, such as black holes or supernovae, confirm that empirical observation is only a fragment of reality. Interpretations that combine revelation and science allow humans to understand these phenomena philosophically, without losing their transcendental dimension.[49] From an ethical perspective, reading the cosmos as a divine text fosters awareness of human responsibility toward the universe. Understanding the order, balance, and complexity of the cosmos affirms the principle of the stewardship of creation (khilafah) and the ecological ethics taught in the Qur'an, bridging science and moral values in everyday life.

Another epistemic implication is the development of a transdisciplinary model of Islamic education and research. The integration of revelation and science in understanding the cosmos encourages holistic learning that combines empirical observation, philosophical reflection, and spiritual experience, ensuring that Islamic knowledge remains relevant to modern scientific advances. Furthermore, this approach broadens interpretive horizons,

[47] Wahyuningsih Wahyuningsih, "Text and Context in Interpreting Philosophical Traditions: Global and Islamic Perspectives," Islamic Perspective on Communication and Psychology 2, no. 2 (2025): 86–101, https://doi.org/https://doi.org/10.61511/ipercop.v2i2.2025.2222.

[48] Nurul Ain Norman and Kholid Al Walid, "The Convergence of Quantum Science and the Islamic Concept of the Soul: Exploring Metaphysical Realities," Journal of Contemporary Studies on Religion and Science (JCSRS) 1, no. 1 (2025): 78–106, https://jcsrs.risse.ac.ir/article_212873.html.

[49] Vijayanand Selvaraj, "ENHANCING IMMERSIVE LEARNING THROUGH VIRTUAL AND AUGMENTED REALITY IN," Multidisciplinary Research Area in Arts, Science & Commerce 6, no. 62.58.7 (2025): 23.

enabling contextual and universal interpretation of the Qur'an.[50]. The cosmos becomes a medium of dialogue between science and revelation, so that Qur'anic interpretation not only answers theological questions but also bridges human understanding of the universe scientifically, philosophically, and spiritually.

The cosmos as a divine text also emphasizes the importance of an integrative epistemology that balances the empirical, the rational, and the intuitive. This interpretation establishes a new paradigm in Qur'anic studies, in which revelation and science mutually enrich human understanding of the nature of the universe and the principles of divinity.[51]. Thus, this subchapter emphasizes that the philosophical and epistemic implications of the cosmos as a divine text inform the development of a transdisciplinary, integrative, and relevant Qur'anic interpretation to modern science. The cosmos is not merely an object of scientific inquiry but also a medium for understanding divine law, ethical values, and spiritual reflection, so that revelation and empirical phenomena together form a comprehensive and profound understanding.

D. Conclusion

This article asserts that the cosmos can be understood as a divine text, rich in meaning, in which natural phenomena serve as an epistemic medium for understanding divine principles. Quranic exegesis based on modern astrophysics emphasizes that revelation and science are not contradictory, but rather complementary in building a holistic, integrative, and philosophical understanding of the universe. Modern astrophysical phenomena, including stellar evolution, black holes, cosmic background radiation, and the large-scale structure of the universe, provide relevant empirical data for interpreting Quranic verses on cosmology. The integration of scientific observation, philosophical reflection, and the spiritual dimension makes Quranic exegesis transdisciplinary, strengthening the dialogue between science and revelation and bridging the empirical and metaphysical dimensions.

The Integrative Cosmological Model of Interpretation, which combines the bayani, burhani, and irfani approaches, enables an understanding of the cosmos as a living, dynamic,

[50] Mohammad Nor Ichwan, "Ichwani Tafsīr Method: An Integrative Approach to the Interpretation of the Qur'an," Journal of Interdisciplinary Qur'anic Studies 3, no. 1 (2024), https://scj.sbu.ac.ir/article_105962.html.

[51] Ihah Solihah et al., "Integrating Al-Qur'an, Hadith, and Science in Islamic Education: Tracing Scientific Insights," Interdisciplinary Journal of Islamic Education and Science 4, no. 3 (2025): 123–31, https://doi.org/https://doi.org/10.59944/jipsi.v4i3.453.

and meaningful text. This approach not only enriches academic interpretation but also fosters ethical, spiritual, and philosophical awareness, enabling humans to understand the order, harmony, and purpose of creation as manifestations of God's greatness. Thus, the cosmos as a divine text opens new epistemic and philosophical perspectives in the study of the Qur'an. This approach encourages the development of contemporary interpretations relevant to modern science, while maintaining the transcendental value of revelation. The phenomena of the universe serve as a vehicle for intellectual and spiritual reflection that broadens human insight, fostering a productive dialogue among revelation, reason, and empirical experience.

E. Bibliography

Abbasova, G. Y. "THE INFLUENCE OF ANCIENT KNOWLEDGE ON THE FORMATION OF HUMAN SELF-CONSIOUSNESS." *Journal of Philosophy, Culture & Political Science* 87, no. 1 (2024). https://doi.org/10.26577/jpcp.2024.v.87.i1.02.

Akhtar, Qayyum. "A Critical Review of the Qur'anic Interpretation of the Universe and Modern Scientific Thought." *Pakistan Journal of Islamic Philosophy* 7, no. 3 (2025): 1–12.

Al-Attas, Syed Muhammad Naquib. *The Concept of Education in Islam: A Framework for an Islamic Philosophy of Education*. Kuala Lumpur: International Institute of Islamic Thought and Civilization (ISTAC), 1993.

Al-Bagdadi, Mahmud al-'Allama Abu l-Fadl Sihab al-Din al- Alusi. *Ruh Al-Ma'Ani Fi Tafsir Al-Qur'an Al-'Azim Wa Al-Sab' Al-Matsani*. Saudi Arabia: Dar Ihya al-Turath al-'Arabi, 2003.

Al-Faruqi, Ismail Raji. *Islamisasi Pengetahuan*. Bandung: Penerbit Pustaka, 2003.

———. *Islamization of Knowledge: General Principles and Workplan*. USA: International Institute of Islamic Thought (IIIT), 1982.

Al-Razi, Fakhr al-Din. *Mafatīḥ Al-Ghaib*. Bairut: Dar Al-Fikr, 1999.

Al-Taftazani, Masud. *Sharh Al-Maqasid Fi Ilm Al-Kalam*. Kairo: Dar al-Kutub al-'Ilmiyyah, 2000.

Aleksi, Emilia, and Veera Leevi. "Discovering the Marvels and Intricacies of Physics and Astronomy A Journey Through Fundamental Principles and Cosmic Phenomena." *Fusion of Multidisciplinary Research, An International Journal* 3, no. 2 (2022): 342–53. https://doi.org/https://doi.org/10.63995/ZTDA2027.

Allen, Steven W, August E Evrard, and Adam B. Mantz. "Cosmological Parameters from

Observations of Galaxy Clusters." *Annual Review of Astronomy and Astrophysics* 49, no. 1 (2011): 409–70. https://doi.org/https://doi.org/10.1146/annurev-astro-081710-102514.

Arkoun, Mohammed. *Rethinking Islam: Common Questions, Uncommon Answers*. New York: Routledge, 1994. https://doi.org/https://doi.org/10.4324/9780429304651.

Armstrong, Karen. *Islam: A Short History*. New York: Modern Library, 200AD.

Basit, Qari Abdul, and et al. "The Creation of Moon: Comparative Analysis between Modern Sciences and Religious Studies." *Journal of Islamic Thought and Civilization* 11, no. 2 (2021): 327–43. https://doi.org/https://doi.org/10.32350/jitc.112.18.

Chauvet, Adrien. "Cosmographical Readings of the Qur'an." *American Journal of Islam and Society (AJIS)* 40, no. 1–2 (2023): 8.

Dallal, Ahmad. *Islam, Science, and the Challenge of History*. London: Yale University Press, 2010.

Fathurrohman, Rizal, Abdul Munip, and Muh Wasith Achadi. "The Epistemology of Riyāḍah in Pesantren: A Philosophical Foundation for Islamic Intellectual Formation." *Scaffolding: Jurnal Pendidikan Islam Dan Multikulturalisme* 7, no. 3 (2025): 301–20.

Fernández-Cobos, Raúl. "The Concept of the Universe in Physical Cosmology." *Journal for General Philosophy of Science* 52, no. 4 (2021): 523-542. https://doi.org/https://doi.org/10.1007/s10838-021-09561-7.

Fusco, Mark P. "Black Hole Entropy and the Holographic Universe." In *The Physics and Metaphysics of Transubstantiation*, 221–45. Cham: Springer International Publishing, 2023.

Gadamer, Hans-Georg. *Truth and Method*. New York: Bloomsbury Revelations, 2013.

Gadamer, Hans Georg. *Philosophical Hermeneutics*. Berkeley: University of California Press, 1976.

Gale, George, and Fohn R Urani. "Philosophical Aspects of Cosmology." In *Cosmology*, 547–68. France: CRC Press, 2023.

Goshu, Belay Sitotaw, and Muhammad Ridwan. "Exploring the Mystique of Seven: An Interdisciplinary Analysis of Its Significance in Astronomy, Culture, and Human Life." *Lakhomi Journal Scientific Journal of Culture* 5, no. 1 (2024): 19–33. https://doi.org/https://doi.org/10.33258/lakhomi.v5i1.1028.

Haider, Rizwan, Abdul Wahid, and Adnan Shahzad. "The Intersection of Quran and Science: Analyzing the Methodologies of Two Contemporary Exegetes." *Review Journal of*

Social Psychology & Social Works 2, no. 1 (2024): 112–38. https://doi.org/https://doi.org/10.71145/rjsp.v2i1.43.

Hanif, Abdullah, Wawan Wahyudin, and Sholahuddin Sholahuddin. "Implementation of Transdisciplinary Approaches in Islamic Education to Face Contemporary Global Challenges." *Eduprof: Islamic Education Journal* 6, no. 2 (2025): 151–71. https://doi.org/https://doi.org/10.47453/eduprof.v6i2.283.

Hardwick, Michael. "What the Universe Tells Us About God and Christian Apologetics." Regent University, 2020.

Harrison, Peter. "The Development of the Concept of Laws of Nature." In *Creation*, 13–36. New York: Routledge, 2018.

Hasibuan, Alya Fathi Muhammad, Hizami Sabil, and Abu Yazid Raisal. "Science in the Qur'an and Its Impact on the Study of Astronomy." *AL-AFAQ: Jurnal Ilmu Falak Dan Astronomi* 6, no. 1 (2024): 53–63. https://doi.org/https://doi.org/10.20414/afaq.v6i1.9969.

Hawking, Stephen. *A Brief History of Time*. New York: Bantam Books, 1988.

Heckman, Timothy M, and Philip N Best. "The Coevolution of Galaxies and Supermassive Black Holes: Insights from Surveys of the Contemporary Universe." *Annual Review of Astronomy and Astrophysics* 52, no. 1 (2014): 589–660. https://doi.org/https://doi.org/10.1146/annurev-astro-081913-035722.

Hubble, Edwin. "A Relation between Distance and Radial Velocity among Extra-Galactic Nebulae." *Proceedings of the National Academy of Sciences* 15, no. 3 (1929): 168–173. https://doi.org/https://doi.org/10.1073/pnas.15.3.168.

Ichwan, Mohammad Nor. "Ichwani Tafsīr Method: An Integrative Approach to the Interpretation of the Qur'an." *Journal of Interdisciplinary Qur'anic Studies* 3, no. 1 (2024). https://scj.sbu.ac.ir/article_105962.html.

Jordaan, Gert JC. "Cosmology in the Book of Revelation." *In Die Skriflig* 47, no. 2 (2013): 1–8. https://hdl.handle.net/10520/EJC144552.

Kakabadse, Nada K, and Peter Steane. "Meaning and Interpretation: Insights and Discourse." *Journal of Management History* 16, no. 3 (2010): 346–66. https://doi.org/https://doi.org/10.1108/17511341011051243.

Khan, Muin-ud-din Ahmad. "The Concept of Knowledge in the Quran." *Humanomics* 18, no. 3 (2002): 26-41. https://doi.org/https://doi.org/10.1108/eb018874.

Mantini, Alessandro. "The Phenomenon of Emergence as a Key to Deepening the Mystery of the Cosmos, for Cross Disciplinary and Humble Scientific Research." *Religions* 15,

no. 7 (2024): 860. https://doi.org/10.3390/rel15070860.

Nasr, Seyyed Hosein. *Science and Civilization in Islam (2nd Ed.)*. United Kingdom: Harvard University Press, 1968.

Nasr, Seyyed Hossein. *An Introduction to Islamic Cosmological Doctrines*. Albany: New York Press, 1993.

———. *The Garden of Truth: Knowledge, Love, and Action*. New York: HarperCollins, 2007.

Norman, Nurul Ain, and Kholid Al Walid. "The Convergence of Quantum Science and the Islamic Concept of the Soul: Exploring Metaphysical Realities." *Journal of Contemporary Studies on Religion and Science (JCSRS)* 1, no. 1 (2025): 78–106. https://jcsrs.risse.ac.ir/article_212873.html.

OJO, Peter Abiodun. "A Philosophical Evaluation of the Core Principles of Yoruba Beliefs Regarding the Relationships between God, Humanity and the Cosmos." *IGWEBUIKE: African Journal of Arts and Humanities* 10, no. 6 (2024). https://acjol.org/index.php/iaajah/article/view/6084.

Penzias, Arno A, and Robert W Wilson. "A Measurement of Excess Antenna Temperature at 4080 Mc/S." *The Astrophysical Journal* 142, no. 1 (1965): 419–421. https://doi.org/10.1086/148307.

Plašienková, Zlatica. "Cosmos and Humanity: Historical and Contemporary Paradigms of Understanding." *Human Affairs* 33, no. 2 (2023): 151–57. https://www.degruyterbrill.com/document/doi/10.1515/humaff-2023-0034/html.

Ricoeur, Paul. *Interpretation Theory: Discourse and the Surplus of Meaning*. Texas: Texas Christian University Press, 1976.

Selvaraj, Vijayanand. "ENHANCING IMMERSIVE LEARNING THROUGH VIRTUAL AND AUGMENTED REALITY IN." *Multidisciplinary Research Area in Arts, Science & Commerce* 6, no. 62.58.7 (2025): 23.

Solihah, Ihah, and et al. "Integrating Al-Qur'an, Hadith, and Science in Islamic Education: Tracing Scientific Insights." *Jurnal Ilmu Pendidikan Dan Sains Islam Interdisipliner* 4, no. 3 (2025): 123–31. https://doi.org/https://doi.org/10.59944/jipsi.v4i3.453.

Suparno, Suparno. "FROM SINGULARITY TO SKYWARD LIFE: THE QUR'AN'S SCIENTIFIC WONDERS EXPLAINED." *RGSA – Revista de Gestão Social e Ambiental* 17, no. 2 (2023): 1–23. https://doi.org/https://doi.org/10.24857/rgsa.v17n2-031.

Tegmark, Max. *Our Mathematical Universe: My Quest for the Ultimate Nature of Reality*. New York: Knopf, 2014.

Wahyuningsih, Wahyuningsih. "Text and Context in Interpreting Philosophical Traditions: Global and Islamic Perspectives." *Islamic Perspective on Communication and Psychology* 2, no. 2 (2025): 86–101. https://doi.org/https://doi.org/10.61511/ipercop.v2i2.2025.2222.