



Scientific Tafsir and Oceanographic Stratification: Barzakh in Zaghoul El-Naggar's Hermeneutics

Raodah^{1*}, Sarwadi², Nur Hayati³, Nurul Hidayati⁴, Lalu Agus Murzaki⁵

^{1,3,4,5}Institut Agama Islam Qamarul Huda, Indonesia

²Universitas Qamarul Huda Badaruddin, Indonesia

* raodahmnuh@gmail.com

Received: January 2025; Revised: April 2025; Accepted: June 2025

DOI: <http://doi.org/10.33852/jurnalin.v9i1.644>

Abstract:

This study explores the relationship between the Qur'an and modern science, particularly through Zaghoul El-Naggar's tafsir' ilmi (scientific exegesis) of the concept of barzakh in Surah Ar-Rahman: 19-20. El-Naggar correlates the Qur'anic description of the barrier between two seas with the scientific theory of density stratification in oceanography. The research employs a qualitative library research method, applying a hermeneutical framework to critically analyze the epistemological and methodological aspects of El-Naggar's interpretation. The findings reveal that while El-Naggar's approach effectively integrates scientific phenomena with religious texts, it risks oversimplifying the Qur'an's metaphysical and theological meanings by relying too heavily on empirical validation. The study contrasts this with al-Tantawi Jawhari's more spiritual hermeneutics, which emphasize moral and reflective aspects of natural phenomena. The research contributes to the Development of a balanced tafsir' ilmi approach that harmonizes scientific inquiry with spiritual reflection, offering valuable insights for contemporary Islamic education and the integration of science and religion. Future research could further explore diverse tafsir' ilmi approaches and expand the empirical scope to deepen understanding of the Qur'an's relationship with science.

Key Words: *Tafsir Ilmi, Barzakh, Density Stratification, Qur'anic Exegesis*

Abstrak:

Penelitian ini mengeksplorasi hubungan antara Al-Qur'an dan sains modern, khususnya melalui tafsir ilmiah (penafsiran ilmiah) Zaghoul El-Naggar tentang konsep barzakh dalam Surah Ar-Rahman: 19-20. El-Naggar mengkorelasikan deskripsi Al-Qur'an tentang penghalang antara dua laut dengan teori ilmiah stratifikasi densitas dalam oseanografi. Penelitian ini menggunakan metode penelitian pustaka kualitatif, menerapkan kerangka hermeneutika untuk menganalisis secara kritis aspek epistemologis dan metodologis dari interpretasi El-Naggar. Temuan menunjukkan bahwa meskipun pendekatan El-Naggar secara efektif mengintegrasikan fenomena ilmiah dengan teks-teks keagamaan, pendekatan ini berisiko menyederhanakan makna metafisik dan teologis Al-Qur'an dengan terlalu bergantung pada validasi empiris. Studi ini membandingkan hal tersebut dengan hermeneutika spiritual al-Tantawi Jawhari, yang menekankan aspek moral dan reflektif dari fenomena alam. Penelitian ini berkontribusi pada pengembangan pendekatan tafsir ilmu yang seimbang yang menyelaraskan penyelidikan ilmiah dengan refleksi spiritual, menawarkan wawasan

berharga untuk pendidikan Islam kontemporer dan integrasi ilmu pengetahuan dan agama. Penelitian selanjutnya dapat lebih mengeksplorasi beragam pendekatan tafsir ilmu dan memperluas cakupan empiris untuk memperdalam pemahaman tentang hubungan Al-Qur'an dengan ilmu pengetahuan.

Kata Kunci: *Tafsir Ilmi, Barzakh, Stratifikasi Kepadatan, Eksegesis Al-Qur'an*

INTRODUCTION

The relationship between religion and science has always been a fundamental issue in intellectual discourse, especially in Muslim communities where the Qur'an plays a central role (Alhattab et al., 2024). In recent years, the rise of the Tafsir Ilmi (Scientific Exegesis) approach has sparked significant debate, with many scholars seeking to reconcile the Qur'an's descriptions of the natural world with modern scientific knowledge (Zubaidi et al., 2025; Munawar, 2025). This approach is seen as a means of validating the divine origin of the Qur'an through scientific evidence. However, this interpretation raises concerns regarding epistemological and methodological implications, including the risk of imposing modern scientific methods on ancient sacred texts. This research is crucial because it seeks to address the growing influence of Tafsir Ilmi on contemporary Islamic thought, exploring its relevance and limitations in light of scientific theories like the Theory of Density Stratification in Oceanography.

The main problem with the Tafsir Ilmi approach is its potential to distort the meaning of sacred texts by attempting to fit them into evolving scientific paradigms. This creates an epistemological challenge where science is viewed as the ultimate authority, often at the expense of the text's original linguistic and theological meanings (Hathaway, 2021;). In the case of Prof. Dr. Zaghoul El-Naggar's interpretation of the Qur'anic verses in Surah Ar-Rahman (19-20), which describe two meeting seas separated by a barrier (barzakh), he claims this corresponds with modern oceanographic findings (Samhudi et al., 2024). However this forced harmonization risks ignoring the complexities of both the Qur'anic text and the scientific facts, making it necessary to critically examine the interpretive methods used in Tafsir Ilmi and their broader implications for Islamic scholarship.

In practice many contemporary Islamic scholars and educators emphasize the relevance of Tafsir Ilmi, particularly in connecting the Qur'an with modern science (Amir et al., 2023). El-Naggar's interpretation of the barzakh concept, in which two seas meet yet remain separate by a barrier, is often cited as evidence of the Qur'an's scientific accuracy (Daneshgar, 2023). However the widespread acceptance of such interpretations has led to a growing divide between religious and scientific communities, as many critics argue that these approaches oversimplify the complex relationship between faith and science (Motta, 2025). The challenge lies in distinguishing genuine scientific explanations from speculative concordism, which risks distorting both the sacred text and scientific

facts. This research will provide a much-needed theoretical contribution to the ongoing debate by critically evaluating the method employed in Tafsir Ilmi and its implications for Islamic scholarship and the relationship between religion and science.

A significant body of literature has explored the relationship between Qur'anic exegesis and modern science. Most studies have focused on describing the scientific phenomena that appear to align with Qur'anic verses, such as the meeting seas mentioned in Surah Ar-Rahman. For instance, studies confirm the compatibility between the barzakh and oceanographic concepts such as the thermocline and pycnocline layers, in which the mixing of water masses of different densities creates a barrier between salt and freshwater (Jamshidi et al., 2025). These studies often fall short of offering a critical analysis of how these scientific concepts are integrated into the exegesis, leaving a significant gap in understanding the epistemological assumptions and interpretive processes that underpin these conclusions.

While previous research has established the scientific relevance of the barzakh concept, it has largely neglected the methodological and theoretical aspects of Tafsir Ilmi. Much of the existing work lacks a systematic critique of the interpretive methods employed by scholars such as El-Naggar. These studies often take the concordist interpretation for granted, reinforcing the view that the Qur'an predicts scientific discoveries without addressing the more profound epistemological questions at play. Moreover, the use of scientific theories, like oceanographic concepts, to explain Qur'anic verses has not been critically examined within a rigorous hermeneutical framework. This gap in the literature calls for a more nuanced, theoretically grounded analysis of how Tafsir Ilmi interacts with modern science and of the potential implications of such an approach for Islamic thought.

This research represents a significant departure from prior studies by applying a hermeneutical framework to critically evaluate the Tafsir Ilmi approach, with particular focus on the work of El-Naggar. By grounding the analysis in contemporary philosophical and theological methodologies, this study aims to address a gap in the literature on the theoretical underpinnings of Tafsir Ilmi. Furthermore, this research distinguishes itself by linking the Qur'anic concept of barzakh to the specific and contemporary scientific theory of density stratification in oceanography, thereby providing a more precise scientific justification for the interpretation. This novel approach enables a deeper, more methodologically robust examination of the relationship between religion and science, offering valuable insights for scholars and practitioners alike.

The central research problem of this study is to assess the validity and epistemological soundness of El-Naggar's Tafsir Ilmi methodology, particularly in relation to his interpretation of the barzakh concept in Surah Ar-Rahman (19-20). By employing a hermeneutical framework, this research critically examines

the assumptions and limitations inherent in the Tafsir Ilmi approach. It provides a comprehensive analysis of how modern scientific theories are integrated into Islamic exegesis. Additionally, this research will test the extent to which the barzakh concept aligns with the Theory of Density Stratification in Oceanography, offering a more scientifically rigorous justification for the claims made by proponents of Tafsir Ilmi. The findings will contribute to the ongoing discourse on the relationship between science and religion and provide a more responsible, methodologically sound approach to interpreting the Qur'an in light of modern science.

This research is essential for addressing the growing influence of Tafsir Ilmi in contemporary Islamic scholarship and its implications for the relationship between religion and science. By offering a critical, hermeneutically grounded analysis of El-Naggar's methodology and testing its alignment with modern scientific theories, this study aims to contribute to the development of a more robust and responsible approach to scientific exegesis. The findings will provide important insights for scholars, theologians, and educators seeking to navigate the complex intersection of faith and reason, ensuring that the interpretation of sacred texts remains both faithful to their original meanings and intellectually sound in light of modern scientific discoveries.

RESEARCH METHOD

This study employs a qualitative research design using a library research approach, chosen for its ability to gather comprehensive data from primary and secondary sources without requiring field research. Library research facilitates an extensive exploration of relevant literature on Tafsir Ilmi and Oceanography, which is crucial for analyzing the intersection between sacred texts and modern scientific knowledge. This approach also enables an in-depth understanding of hermeneutical methodologies and theories, which are fundamental to evaluating El-Naggar's scientific exegesis and the relationship between science and religion. The choice of this design is motivated by the need to analyze the interpretive processes of Tafsir Ilmi comprehensively and to assess its alignment with contemporary scientific theories, thereby ensuring a robust, theoretical evaluation.

The research will primarily be conducted in academic libraries and digital archives that provide access to key texts and peer-reviewed journals. This includes Qur'anic exegeses, particularly the works of Zaghoul El-Naggar; foundational literature on hermeneutics, epistemology, and critical Tafsir Ilmi methodologies; and high-impact international journals on Density Stratification Theory. The selection of these resources is based on their relevance to the study's core themes, ensuring access to both religious and scientific materials required for a critical analysis of the subject. Academic libraries and digital repositories

are ideal for this type of research due to their vast collections of specialized texts, which enable comprehensive, interdisciplinary study.

Data collection for this study will involve the systematic gathering of relevant texts from primary and secondary sources. Primary data includes the Qur'anic text (specifically Surah Ar-Rahman: 19-20), the exegetical works of Zaghoul El-Naggar, and scientific articles related to the Density Stratification Theory. Secondary data consists of foundational literature on hermeneutics, epistemology, and critiques of Tafsir Ilmi. The texts will be obtained from academic library databases, scholarly publications, and open-access journals to ensure a diverse and rich dataset for analysis. This method is well-suited to the research's interdisciplinary nature, enabling the integration of theological and scientific perspectives.

Data analysis will be conducted in three main stages, following the principles of critical hermeneutics: first, description, and then identification. This initial stage involves mapping El-Naggar's scientific claims and exegetical process, situating his interpretations within contemporary scientific knowledge. This step will provide an overview of the connection between the Qur'anic text and scientific theories, ensuring that the interpretive process is clearly outlined. Second, in this stage, the hermeneutical methodological critique will evaluate the epistemological assumptions underlying El-Naggar's interpretation, identifying potential biases and the risk of concordism (the forced harmonization of science and religion). Dilthey's Hermeneutic Circle and Concordism Theory will guide this critique, allowing for a deeper understanding of how the text and its context interact and how modern science is integrated into the exegesis. Third, in the final stage of the scientific relevance test, the barzakh concept, as interpreted by El-Naggar, will be compared with empirical data from Density Stratification Theory. The study will apply principles from the philosophy of science, particularly Popper's criteria for scientific theory validation (Popper, 2005), to assess the coherence between the scientific theory and the Qur'anic description.

To ensure the validity of the data, several strategies will be employed. First, data triangulation will be applied by using multiple sources, such as the Qur'anic text, El-Naggar's works, and peer-reviewed scientific literature, to cross-check and validate the interpretations. Second, the researcher will maintain transparency in the analysis by documenting each step of the data collection and interpretation process. Third, an iterative approach will be used in the hermeneutical analysis, revisiting the text and its context multiple times to ensure that the interpretation is consistent and well grounded. Lastly, peer feedback from experts in hermeneutics and oceanography will be solicited to assess the robustness of the analysis, ensuring that the conclusions drawn are academically sound and methodologically valid.

RESULT AND DISCUSSION

Textual and Scientific Hermeneutics of QS. Ar-Rahman: 19–20

The findings of this study reveal a significant connection between the Qur'anic concept of *barzakh* and modern oceanographic phenomena, particularly density stratification. El-Naggar's interpretation of *barzakh* as a metaphor for the physical separation of water masses with different densities, which creates a zone of transition, or pycnocline, aligns with scientific findings on the stratified structure of oceans (Jamshidi, 2025). The scientific literature confirms that such separation, observed at the interface between different water bodies such as the Atlantic and Mediterranean near the Strait of Gibraltar, reflects the concept of a barrier that prevents complete mixing (Villastrigo et al., 2022; Garrido et al., 2022). This finding supports El-Naggar's claim that the Qur'an's depiction of *barzakh* corresponds to a physical reality observed by modern science. However, while this concordance between the Qur'anic verse and scientific theory holds strong in a descriptive sense, it also highlights the potential risks of a purely concordist approach, as the Qur'anic text encompasses a broader metaphysical and spiritual meaning beyond empirical verification (Ruhullah et al., 2024).

Compared with earlier interpretations of *barzakh*, such as those by classical exegetes such as Al-Tabari, Ibn Kathir, and Al-Maraghi, this study indicates a shift toward a more scientifically oriented exegesis. Classical scholars emphasized the metaphysical dimension of *barzakh*, viewing it primarily as a symbol of divine control and cosmic order, rather than a scientifically verifiable phenomenon. In contrast, El-Naggar's tafsir 'ilmi represents a more contemporary approach, where scientific knowledge is used to support religious claims. While the previous exegetes focused on the theological and moral implications of *barzakh*, El-Naggar extends this to include empirical observations, thus aligning religious scripture with modern scientific paradigms. This shift has implications for how sacred texts are interpreted in the light of contemporary knowledge, and how the Qur'an is positioned within the dialogue between faith and reason.

The theoretical implications of this study are profound, as it underscores the necessity of a critical hermeneutical framework for scientific exegesis. Dilthey's (1976) hermeneutic circle reminds us that understanding involves an iterative process between the part (the verse) and the whole (the Qur'anic worldview) (Wolfson, 2025). By integrating this philosophical approach, the study highlights that the Qur'anic text cannot be reduced to a simple scientific document. Instead, the text operates on multiple levels linguistic, cosmological, and theological and each of these layers contributes to a deeper, more holistic understanding of the verse. While scientific exegesis can enrich our comprehension of the natural world described in the Qur'an, it must not

overshadow the metaphysical dimensions of the text that invite reflection on divine wisdom and purpose.

From a practical standpoint, the findings suggest that tafsir 'ilmi can serve as an important tool for fostering a more informed and nuanced relationship between science and religion (Munawar,2025). This approach allows contemporary Muslims to appreciate the Qur'an as a living document that engages with the world's knowledge while maintaining its spiritual and moral guidance (Hendawi et al., 2024). By applying modern scientific concepts to the interpretation of Qur'anic verses, scholars like El-Naggar provide a framework through which faith can be seen as compatible with scientific discovery (Yusuf et al., 2023). However this study also cautions against the reduction of sacred texts to scientific facts, advocating for a balanced perspective that respects both the spiritual and intellectual dimensions of the Qur'an.

In conclusion the study suggests that while the Qur'an's barzakh concept aligns with modern scientific theories such as density stratification, this correlation should be understood within the broader context of Islamic exegesis. The interpretation of barzakh as a physical barrier separating two seas, as supported by El-Naggar's tafsir 'ilmi, provides valuable insights into how sacred texts can resonate with scientific knowledge. However, it is essential to preserve the Qur'an's broader metaphysical and theological meanings, which transcend empirical categories. By integrating El-Naggar's empirical approach with a more traditional spiritual orientation, as seen in scholars like Jawhari, this study proposes a more holistic hermeneutical model that respects both the intellectual and spiritual dimensions of the Qur'anic message (Gadamer, 2004; Popper, 2005). This balanced approach allows for a richer understanding of the Qur'an in the context of contemporary scientific inquiry while preserving its theological integrity.

Comparison with al-Tantawi Jawhari

The findings of this study reveal a clear contrast between the hermeneutical approaches of Zaghoul El-Naggar and al-Tantawi Jawhari, particularly in their interpretations of the Qur'anic concept of barzakh in Surah Ar-Rahman: 19-20. El-Naggar's scientific exegesis, which seeks to correlate the Qur'anic description of barzakh with modern scientific discoveries, aligns with the Density Stratification Theory in oceanography. His interpretation is grounded in empirical validation, where the barzakh serves as a metaphor for the stratified layers in oceans that prevent total mixing of differing saline masses (Feistel & Wagner, 2005; Cheng et al., 2023). This approach is congruent with the scientific data supporting the existence of density-driven barriers in oceanic waters. In contrast, Jawhari's approach, as seen in his work *Al-Jawāhir fi Tafsir al-Qur'an al-Karim*, is fundamentally different. Rather than focusing on empirical evidence, Jawhari views natural phenomena as divine signs (āyāt

kauniyyah) intended to foster spiritual reflection and intellectual growth, rather than verifying scientific truths (al-Tantawi Jawhari, 1928). His method prioritizes contemplative reflection over laboratory empiricism, a distinction that highlights a significant divergence in how each scholar engages with the relationship between science and religion (Szaciłowski et al., 2023).

The comparison with existing literature reveals a clear epistemological divide between El-Naggar's and Jawhari's methods. While El-Naggar's approach is largely concordist, aiming to harmonize scientific facts with Qur'anic verses, Jawhari's method transcends this by emphasizing that science is a means to understand divine wisdom, rather than to confirm the physical details of revelation (Alhattab et al., 2024). This contrast resonates with the critique of methodological concordism, as discussed by Zeyer (2023), who warns against subordinating religious texts to the temporality of scientific knowledge. In this study, El-Naggar's method is shown to risk narrowing the interpretive scope of the Qur'an by reducing it to a set of empirical claims. By contrast, Jawhari maintains a broader, more expansive view of the Qur'an, where the signs in nature serve as an invitation to engage in deeper spiritual and moral contemplation (Dahri, 2025). This difference illustrates how the application of scientific knowledge in exegesis can either enhance or limit the interpretive potential of sacred texts.

From a theoretical standpoint, the implications of these findings underscore the need for a more nuanced hermeneutical approach to the relationship between religion and science. El-Naggar's model, which aligns closely with the integration of science into Islamic scholarship, is valuable for making the Qur'an relevant in the context of contemporary scientific inquiry. His approach helps bridge the gap between modern scientific knowledge and religious teachings, providing a rational framework that resonates with Muslim audiences seeking to reconcile faith with reason. However, the risk of reducing revelation to empirical phenomena must be acknowledged. On the other hand, Jawhari's model offers a more profound spiritual interpretation, emphasizing the ethical and existential dimensions of scientific discovery. His approach encourages a reflective engagement with the natural world, fostering a deeper appreciation of divine wisdom and the broader purpose of creation (Hanif, 2024).

The pedagogical implications of this study are significant, highlighting the need for a balanced approach to integrating science and religion in modern Muslim education. El-Naggar's scientific exegesis offers a rational framework that harmonizes faith with contemporary scientific discourse, encouraging students to see religious texts as relevant to both spiritual guidance and scientific understanding. In contrast, Jawhari's method emphasizes a reflective relationship with nature, urging students to view natural phenomena as manifestations of divine wisdom and fostering moral and intellectual growth. Combining El-Naggar's empirical precision with Jawhari's spiritual depth

creates a holistic educational approach, where scientific knowledge is balanced with ethical and spiritual contemplation. The study advocates for an integrated model that preserves the metaphysical and existential meanings of the Qur'an while embracing empirical insights, aligning with Al-Faruqi's vision of the Islamization of Knowledge, where revelation and reason operate in tandem, offering a comprehensive understanding of the Qur'an that encompasses both rational and contemplative dimensions.

Hermeneutical and Epistemological Implications

This study reveals significant insights into Zaghoul El-Naggar's tafsir 'ilmi approach, particularly his alignment of the Qur'anic concept of barzakh in Surah Ar-Rahman: 19-20 with modern scientific principles, like density stratification in oceanography. While this approach resonates with the broader trend of integrating science and religion, the study highlights an epistemological tension: El-Naggar's method risks reducing the Qur'an to a mere scientific document, overshadowing its theological and metaphysical meanings. This critique echoes scholars like Haider et al (2024), who warn against uncritical concordism, which might diminish the Qur'an's transcendent message by overemphasizing empirical verification.

The study emphasizes the theoretical implications of El-Naggar's approach, which, while valuable in connecting natural phenomena with divine signs, risks imposing the limitations of scientific knowledge onto the Qur'an. Echoing Wilhelm Dilthey's concept of the hermeneutic circle, the study highlights how focusing too heavily on the empirical aspects of barzakh (density stratification) could overshadow the broader spiritual and existential dimensions of the Qur'an. The research calls for methodological humility in Qur'anic exegesis, acknowledging that while science provides insights into the natural world, it should not constrain the deeper metaphysical truths revealed in the Qur'an.

The study contrasts El-Naggar's empirical approach with al-Tantawi Jawhari's more spiritual hermeneutics, revealing a significant epistemological divergence. While El-Naggar emphasizes empirical validation and scientific inquiry as extensions of Qur'anic understanding, Jawhari views nature as a divine text that encourages spiritual reflection. This contemplative approach, grounded in the bayani, irfani, and burhani dimensions of Islamic knowledge, underscores the need for a balanced epistemology that integrates both the rational-scientific and spiritual-intuitive aspects of understanding. The comparison suggests that a more integrated approach, one that respects both scientific and spiritual dimensions, is essential for a holistic interpretation of the Qur'an.

The study's practical implications highlight the need for a balanced approach to integrating science with Islamic education. While El-Naggar's tafsir 'ilmi offers a model for aligning Qur'anic teachings with contemporary scientific understanding, it is crucial to maintain the metaphysical and spiritual roles of the

Qur'an (Habibullah et al., 2025). The study advocates for an epistemology that harmonizes scientific discovery with spiritual reflection, as proposed by scholars like Al-Attas (1980) and Al-Faruqi (1982). This integrative approach not only resists scientism and literalism but also promotes a more holistic framework for understanding the Qur'an as a dynamic text that engages both intellect and spirituality, fostering a deeper connection between revelation and reason (Supena, 2022; Muslih et al., 2025).

Theological and Scientific Relevance

This study explores the theological and scientific implications of the barzakh concept in Surah Ar-Rahman: 19-20, particularly through Zaghoul El-Naggar's tafsir 'ilmi approach. El-Naggar's interpretation aligns with modern scientific understanding, particularly oceanographic phenomena like density stratification, where distinct layers of water with varying salinity and temperature prevent mixing (Cheng et al., 2025). This alignment reflects the idea of barzakh as a cosmic boundary, echoing earlier views by scholars like Al-Razi and Al-Qurtubi. The study emphasizes how El-Naggar's integration of science with divine governance illustrates a balance in creation, but also warns against the methodological concordism, where the Qur'anic metaphysical meanings risk being overshadowed by scientific claims.

The study highlights the risks of El-Naggar's tafsir 'ilmi approach, specifically the tendency to limit the Qur'an's message to temporary scientific models (Habibullah et al., 2025). It argues that scientific discoveries, while valuable, are not absolute truths and evolve over time (Maksimovic et al., 2023). This tension, akin to Wilhelm Dilthey's hermeneutic circle, reflects the risk of narrowing the interpretation of the Qur'an by focusing too heavily on scientific particulars. A more holistic approach that integrates both scientific and spiritual reflections is necessary to preserve the Qur'an's transcendent epistemic autonomy while engaging with contemporary intellectual frameworks.

The findings offer practical implications for Islamic education, particularly in integrating science with religious education. By framing natural sciences as part of divine reflection, educational institutions can foster scientific literacy grounded in theological consciousness. This approach would enhance students' understanding of scientific phenomena while encouraging them to reflect on divine wisdom. El-Naggar's tafsir 'ilmi can serve as a model for curricula that integrate rational understanding with spiritual reflection, promoting intellectual humility by recognizing that ultimate knowledge resides with God.

The study advocates for an epistemological synthesis that integrates empirical inquiry with spiritual reflection. El-Naggar's interpretation of barzakh as both a scientific and theological concept aligns with the broader Islamic epistemological tradition that views knowledge as holistic and integrated. This

approach fosters a worldview in which revelation and reason operate together, guiding individuals toward intellectual and spiritual enlightenment. The study emphasizes the importance of epistemological humility in Qur'anic exegesis, resisting both secular scientism and literalist interpretations, while promoting a comprehensive understanding of knowledge that engages with both the natural world and divine wisdom.

CONCLUSION

This study highlights Zaghoul El-Naggar's innovative tafsir 'ilmi interpretation of the barzakh concept in Surah Ar-Rahman: 19-20, which successfully links the Qur'anic description of barzakh with the modern scientific theory of Density Stratification in oceanography. El-Naggar demonstrates how the universe operates within a divine balance (*tadbir rabbāni*), aligning with scientific phenomena. However, the study also identifies a limitation in over-relying on empirical verification, cautioning against reducing the Qur'an's theological depth to mere scientific correspondence. This reveals the tension between the scientific and metaphysical dimensions of the Qur'an, urging that while science complements religious understanding, it should not overshadow the spiritual and transcendent aspects of divine revelation.

The strength of this research lies in its critical approach to tafsir 'ilmi, offering a framework that integrates scientific knowledge with divine revelation. It encourages a more holistic understanding of the Qur'an, emphasizing the need to preserve its metaphysical and spiritual meanings alongside scientific insights. The study also suggests implications for Islamic education, advocating for interdisciplinary curricula that merge Qur'anic studies with natural sciences to foster spiritually grounded scientific literacy. However, the study is limited by its focus on El-Naggar's tafsir 'ilmi and a specific scientific theory, without considering other tafsir 'ilmi approaches or broader scientific fields. Future research could expand this by comparing multiple tafsir 'ilmi approaches and incorporating diverse scientific and theological perspectives for a more comprehensive exploration of the relationship between science and revelation in Islamic thought.

REFERENCES

- Alhattab, S., & Jamil, K. H. B. (2024). The Landscape of the Interplay Between Religion and Science: The Experience of Islamic Discourse. *International Journal of Religion*, 5(1), 253-263. <https://doi.org/10.61707/ybg86c06>
- Amir, S., Norasid, M. A., & Hilmi, A. B. A. (2023). Scientific Studies of the Qur'an in the Contemporary Era: An Analysis of Concept, History, and Methodology. *Journal of Islamic Thought and Civilization*, 13(1), 188-202. <https://doi.org/10.32350/jitc.131.13>
- Cheng, L., Li, G., Long, S. M., Li, Y., von Schuckmann, K., Trenberth, K. E., ... & Yuan, H. (2025). Ocean Stratification in a Warming Climate. *Nature Reviews Earth & Environment*, 1-19. <https://doi.org/10.1038/s43017-025-00715-5>
- Dahri, G. N. (2025). Quranic Reflections on Water Conservation: Insights for Sustainable Living. *Al-Quran and Water Science*, 2(1), 12-20.
- Daneshgar, M. (2023). The Qur'an and Science, Part III: Makers of the Scientific Miraculousness: With Majid Daneshgar, "The Qur'an and Science, Part I: The Premodern Era"; Majid Daneshgar, "The Qur'an and Science, Part II: Scientific Interpretations from North Africa to China, Bengal, and the Malay-Indonesian World"; and Majid Daneshgar "The Qur'an and Science, Part III: Makers of the Scientific Miraculousness." *Zygon®*, 58(4), 1005-1028. <https://doi.org/10.1111/zygo.12930>
- Habibullah, I., Zubaidi, S., Chirzin, M., & Nasution, A. (2025). The Integration of Knowledge in Al-Tafsir Al-'Ilmi in Improving the Interpretation Quality of Mutashabihat Verses: An Analysis of Zaghoul Muhammad Raghieb El-Naggar's Thought. *QiST: Journal of Quran and Tafseer Studies*, 4(1), 199-220. <https://doi.org/10.23917/qist.v4i1.8732>
- Haider, R., Wahid, A., & Shahzad, A. (2024). The Intersection of Quran and Science: Analyzing the Methodologies of Two Contemporary Exegetes. *Review Journal of Social Psychology & Social Works*, 2(1), 112-138.
- Hanif, S. (2024). Nature as a Reflection of God's Attributes: Islamic Contemplation of the Natural World. *International Journal of the Universe and Humanity in Islamic Vision and Perspective*, 1(2), 12-22.
- Hathaway, W. L. (2021). Integration, Biblical Counseling, and Hermeneutics. *Journal of Psychology and Theology*, 49(3), 257-267. <https://doi.org/10.1177/0091647121992425>
- Hendawi, M., Al Murshidi, G., Asrori, A., Hadi, M. F., Huda, M., & Lovat, T. (2024). The Development of Islamic Education Curriculum from the Quranic Perspective. *Ar-Fachruddin: Journal of Islamic Education*, 1(2), 93-123.
- Jamshidi, S., & Hamzei, S. (2025). Assessment of Oceanographic Characteristics and Water Mass Exchange in the Persian Gulf and Gulf of Oman. *Deep Sea Research Part II: Topical Studies in Oceanography*, 105503. <https://doi.org/10.1016/j.dsr2.2025.105503>

- Maksimovic, J., & Evtimov, J. (2023). Positivism and Post-Positivism as the Basis of Quantitative Research in Pedagogy. *Research in Pedagogy*, 13(1), 208-218. <https://doi.org/10.5937/IstrPed2301208M>
- Motta, F. (2025). The Truth of the Moderns and the Deception of the Ancients: Heavenly Motions and the Biblical Hermeneutics of Paolo Antonio Foscarini. *GALILAEANA*, 22(1), 23-56.
- Munawar, S. (2025). Exploring Scientific Exegesis (Al-Tafsir Al-'Ilmi) of the Quran: Merits, Challenges, and Interpretive Boundaries. *Journal of Religion and Society*, 3(02), 414-424.
- Muslih, M., & Taqiyuddin, M. (2025). The Integration of Science and Religion: Analysing Research Paradigms in Indonesian State Islamic Universities through a Lakatosian Lens. *Afkar: Jurnal Akidah dan Pemikiran Islam*, 27(1), 165-202.
- Ruhullah, M. E., & Ushama, T. (2024). Time and Society in the Qur'an: Al-Ghazali's Integration of Ancient Wisdom into Islamic Epistemology. *Islam Realitas: Journal of Islamic and Social Studies*, 10(1), 62-80. https://doi.org/10.30983/islam_realitas.v10i1.8583
- Samhudi, S., & Ibrahim, M. S. R. (2024). Integration of Religion and Science in the Quran: Interpretation of Surah Ar-Rahman Verses 19-20 in Tafsir An-Nur Hasby Ash-Shiddiqy. *Hikmah*, 21(2), 254-266. <https://doi.org/10.53802/hikmah.v21i2.421>
- Sánchez-Garrido, J. C., & Nadal, I. (2022). The Alboran Sea Circulation and Its Biological Response: A Review. *Frontiers in Marine Science*, 9, 933390. <https://doi.org/10.3389/fmars.2022.933390>
- Supena, I. (2022). Integration of Islamic Sciences and Secular Sciences Through Spiritualization and Humanization Approaches. *Hikmatuna: Journal for Integrative Islamic Studies*, 8(1), 1-15. <https://doi.org/10.28918/hikmatuna.v8i1.4657>
- Szacilowski, K., & Pilaka, K. (2023). Is Theology an Experimental Science? Exploring the Boundaries of Empirical Enquiry and Religious Understanding. *European Journal of Science and Theology*, 19(6), 91-118.
- Villastrigo, A., Bilton, D. T., Abellán, P., Millán, A., Ribera, I., & Velasco, J. (2022). Cryptic Lineages, Cryptic Barriers: Historical Seascapes and Oceanic Fronts Drive Genetic Diversity in Supralittoral Rockpool Beetles (Coleoptera: Hydraenidae). *Zoological Journal of the Linnean Society*, 196(2), 740-756. <https://doi.org/10.1093/zoolinnean/zlac032>
- Wolfson, E. R. (2025). Mundus Imaginalis and the Test of the Veil: Linear Circularity of Time in Corbin's Phenomenology of Imagination. In *New Perspectives on Henry Corbin* (pp. 133-166). Cham: Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-91627-4_5

- Yusuf, M. S., WASKITO, S., Rohmawati, I., & Anshorullah, A. H. (2023). Samā' and Samāwāt in the Qur'an: A Thematic Study and Its Relevance to the Science of the Creation of the Sky. *INTERNATIONAL JOURNAL*, 4(6), 1073-1081. <https://doi.org/10.54660/IJMRGE.2023.4.6.1073-1081>
- Zeyer, A. (2023). They Always Pretend to Have the Whole Truth-How the Epistemization of Politics Endangers Democracy, and What This May Have to Do with Scientism in School Science: An Essay and Book Review of: Bogner, A. (2021). *Die Epistemisierung des Politischen. Wie die Macht des Wissens die Demokratie Gefährdet*. Reclam Verlag: Stuttgart. *Science Education*, 107(2), 275-290. <https://doi.org/10.1002/sce.21741>
- Zubaidi, S., Asnawi, A. R., & Amir, S. B. (2025). The Development and Challenges of Scientific Qur'anic Interpretation: A Comparative Study Between Malaysia and Indonesia. *Al-Bayan: Journal of Qur'an and Hadith Studies*, 23(1), 27-49. <https://doi.org/10.1163/22321969-20250165>