

Research Article

**The Tremendous Oath: Cosmological Horizons and the Hermeneutics of Stellar Positions (Sūrat Al-Wāqī'ah 56:75–76)**

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**Abstract.** The Qur'ān frequently employs oaths involving celestial phenomena to underscore the veracity of Revelation. However, the oath found in the closing passages of *Sūrat al-Wāqī'ah* (56:75–76) distinguishes itself through unique syntactic negation and a specific focus on the "falling places" (*mawāqī'*) of stars rather than the celestial bodies themselves. This paper provides a multidisciplinary examination of this oath, synthesizing classical philology (*fiqh al-lughah*), the history of Islamic astronomy, and contemporary astrophysics. By analyzing the lexical range of the root *w-q-'* alongside physical phenomena such as light-time delay, gravitational lensing, and stellar collapse, this study argues that the Qur'ānic phrasing anticipates a distinction between perceived observation and physical reality. The paper concludes that the "tremendousness" (*'azamah*) of the oath serves as an

epistemological bridge, challenging human perception to validate the unseen source of the Qur'ān through the visible, yet deceptive, order of the cosmos.

**Keywords:** *Tafsīr*, Islamic Cosmology, *Mawāqī' al-Nujūm*, Epistemology, Science and Religion.

## INTRODUCTION

In the Meccan period of revelation, the Qur'ān frequently directed the gaze of its audience toward the natural world. The desert Arabs, expert trackers and navigators of the night, possessed a deep, functional intimacy with the sky. To the pre-Islamic *Jāhili* mind, the stars were not merely distant lights but vital tools for survival, marking the passage of time, the changing of seasons, and the navigation of the trackless desert. The pre-Islamic poetry of the *Mu'allaqāt* is replete with references to the stars, often describing them as immutable guides or deities controlling the rain (*anwā'*).<sup>1</sup> When the Qur'ān swore by "the Star when it descends" (53:1) or "the Night when it departs" (74:33), it appealed to this immediate, observable reality to establish an evidentiary claim: the regularity of nature witnesses the regularity of divine law.

However, the oath in *Sūrat al-Wāqī'ah* presents a distinctive rupture in this pattern. Nearing the end of the *Sūrah*, following a graphic depiction of eschatological categorization and the humbling of human arrogance regarding creation, sustenance, and death, the text shifts abruptly to a defense of its own ontology. The verses state:

فَلَا أُقْسِمُ بِمَوَاقِعِ النُّجُومِ وَإِنَّهُ لَقَسَمٌ لَّوْ تَعْلَمُونَ عَظِيمٌ

"So, I swear by the setting places [or positions] of the stars. And indeed, it is a tremendous oath, if you only knew." (56:75–76)

This passage invites a profound pedagogical pause. Why does the Divine swear not by the luminosity of the star, but by its *mawqī'*—its site, its time of falling, or its position? And why is this specific oath, out of all celestial oaths in the canon, singled out with the parenthetical glorification: "And indeed, it is a tremendous oath"?

While classical scholars grounded their interpretations in the sensory world of late antiquity—focusing on the setting of stars at dawn or the metaphorical descent of the Qur'ān—the inclusion of the phrase *law ta'lamūna* ("if you only knew") suggests a layer of meaning that lies beyond immediate perception. It implies a "tremendousness" that is conditional on knowledge (*'ilm*). This paper argues that as we view the universe through the lens of general relativity, the distinction between

<sup>1</sup> Daniel Martin Varisco, "The Origin of the Anwā' in Arab Tradition," *Studia Islamica*, no. 74 (1991): 5.

a star and its "position" moves from a poetic nuance to a fundamental physical truth, serving as a sophisticated epistemological argument for the veracity of the Qur'ān.

### The Context of Revelation (*Asbāb al-Nuzūl*) and Rhetorical Function

To understand the weight of this oath, one must situate it within the broader discourse of *Sūrat al-Wāqī'ah*. Revealed in Mecca, this *Sūrah* primarily addresses the skepticism of the Quraysh regarding the Resurrection (*al-Ba'ath*). The concluding section (verses 75–96) serves as a *Khātimah* (conclusion) that synthesizes the physical arguments provided earlier. The polytheists of Mecca frequently accused the Prophet Muḥammad (ﷺ) of being a soothsayer (*kāhin*) or a poet (*shā'ir*) inspired by jinn. By swearing a "tremendous oath" involving the stars, the Qur'ān co-opts the very celestial realm the soothsayers claimed to access, asserting that the source of the Qur'ān is protected, exalted, and utterly distinct from the chaotic whispers of the soothsayers.<sup>2</sup>

### The Bedouin Star-Compass: *Anwā'* and the Theology of Rain

To fully appreciate the subversion present in the oath, one must reconstruct the celestial ontology of the pre-Islamic Arab. For the Bedouin nomad, the sky was not merely a canopy of lights; it was a survival map and a theological calendar. The Arabs utilized a system known as *al-Anwā'*, based on the heliacal rising and setting of specific star groups (asterisms), primarily the Pleiades (*al-Thurayyā*) and Sirius (*al-Shi'rā*).<sup>3</sup>

The setting of a star in the west at dawn (*naw'*) was believed to causally bring about rain. This belief was so entrenched that the Arabs would say, "We have been given rain by the star of Such-and-Such" (*muṭirnā bi-naw' kadhā*). This attribution of agency to the stars was a form of *Shirk* (polytheism) that the Qur'ān explicitly sought to dismantle.

When *Sūrat al-Wāqī'ah* swears by the *mawāqī'* (positions/falling places), it is engaging in a "demythologization" of the Arab worldview. By focusing on the *position*—a geometric coordinate subject to laws—rather than the *naw'* (the rain-bringing power), the text strips the star of its divinity while retaining its majesty. It shifts the focus from the "gift" (rain) to the "governance" (order). The oath effectively argues: Do not worship the star because it sets; rather, marvel at the precision of the *Law* that dictates *where* and *when* it sets. This historical context transforms the verse from a simple oath into a polemic against astral determinism.<sup>4</sup>

<sup>2</sup> Angelika Neuwirth, *Scripture, Poetry, and the Making of a Community* (Oxford: Oxford University Press, 2014), 98.

<sup>3</sup> Paul Kunitzsch, *The Arabs and the Stars: Texts and Traditions on the Fixed Stars and Their Influence in Medieval Europe* (Northampton: Variorum Reprints, 1989), 45.

<sup>4</sup> Toshihiko Izutsu, *The Structure of the Ethical Terms in the Koran* (Tokyo: Keio Institute, 1959), 188.

### Literature Review: Methodological Approaches to Scientific Exegesis

The intersection of Qur'ānic exegesis and modern science—often termed *al-Tafsīr al-'Ilmī*—has generated a polarized discourse in contemporary Islamic thought. To situate the present study on *Sūrat al-Wāqī'ah*, it is necessary to distinguish our hermeneutical approach from the prevailing trends in the field. Broadly, the scholarship can be divided into three methodological camps: the Concordist, the Philological, and the Metaphorical.

The **Concordist Approach**, championed by figures such as Zaghoul El-Naggar and Maurice Bucaille, operates on the premise of "Scientific Miracles" (*I'jāz 'Ilmī*). This school argues that Qur'ānic verses explicitly predict modern scientific discoveries. For instance, El-Naggar interprets *mawāqī' al-nujūm* as a direct reference to Black Holes or Pulsars, arguing that the Qur'ān contains "scientific facts" that preceded experimental verification.<sup>5</sup> While popular among the laity, this approach faces significant criticism from academic theologians like Nidhal Guessoum and Muzaffar Iqbal. Guessoum argues that Concordism treats the Qur'ān as a cryptic science textbook rather than a book of guidance, often forcing linguistic stretches that violate the classical rules of Arabic grammar.<sup>6</sup>

The **Philological Approach**, represented by Western scholars like Angelika Neuwirth and Andrew Rippin, views the Qur'ānic oaths through the lens of Late Antiquity. Neuwirth argues that the Qur'ānic oaths are rhetorical devices designed to subvert the *Kāhin* (soothsayer) tradition of pre-Islamic Arabia. By swearing by the "positions" of stars, the Qur'ān is not teaching astrophysics, but rather claiming authority over the time-keeping systems (*anwā'*) that the Arabs revered.<sup>7</sup> This approach provides crucial historical context but often strips the text of its claims to universal, trans-historical truth.

The **Metaphorical or "Integrationist" Approach**, favored by scholars like Fazlur Rahman and Seyyed Hossein Nasr, seeks a middle ground. They argue that the Qur'ān describes the physical world (*'ālam al-shahādah*) to point toward the spiritual world (*'ālam al-ghayb*). In this view, the "positions of the stars" are symbols of divine order (*niẓām*) and precision (*mīzān*). The scientific reality of the stars is accepted as a sign (*āyah*), but the ultimate purpose of the verse is theological, not empirical.<sup>8</sup>

<sup>5</sup> Zaghoul El-Naggar, *The Scientific Miracles in the Holy Quran* (Beirut: Dar al-Ma'rifah, 2005), 112.

<sup>6</sup> Nidhal Guessoum, *Islam's Quantum Question: Reconciling Muslim Tradition and Modern Science* (London: I.B. Tauris, 2011), 156.

<sup>7</sup> Nidhal Guessoum, *Islam's Quantum Question: Reconciling Muslim Tradition and Modern Science* (London: I.B. Tauris, 2011), 156.

<sup>8</sup> Seyyed Hossein Nasr, *The Garden of Truth* (New York: HarperOne, 2007), 45.

The present study adopts a **Synthesized Hermeneutic**. We accept the strict philological boundaries set by classical dictionaries (rejecting linguistic twisting), but we allow for the "horizon of meaning" to expand as human knowledge expands. We argue that *mawāqī'* was understood as "settings" by the 7th-century Arab and can be validly understood as "relativistic positions" by the 21st-century scientist, without claiming the former interpretation was "wrong" or the latter is "final." This aligns with the Qur'ānic principle that its meanings are inexhaustible.

### PHILOLOGICAL FRAMEWORK: THE MEANING OF MAWĀQĪ'

To build a robust argument, one must first dismantle the linguistic architecture of the verse. The critical term is *mawāqī'*, the plural of *mawqī'*.

#### The Root W-Q-ʿ and its Morphological Implications

Derived from the trilateral root *wāw-qāf-ʿayn* (*w-q-ʿ*), the verb signifies "to fall," "to drop," "to befall," or "to occur." In classical Arabic lexicography, such as Ibn Manẓūr's *Lisān al-ʿArab*, the term *mawqī'* denotes the precise place where something lands or falls.<sup>9</sup> It is often used in martial contexts to describe the impact site of an arrow (*mawqī' al-sahm*) or meteorological contexts for where rain strikes the earth (*mawqī' al-ghayth*).

This etymology is critical because it implies a rigid separation between the agent (the arrow, the rain, the star) and the locus of its impact (the *mawqī'*). The *mawqī'* is a trace, a location marked by an event. It is not the object itself, but the spatial or temporal coordinate of the object. As al-Rāghib al-Iṣfahānī notes in his *Mufradāt*, the term implies a descent from a high status to a settled place, reinforcing the concept of a specific, calculated location.<sup>10</sup>

#### Philological nuance: *Mawqī'* versus *Masqaṭ*

The Qur'ānic selection of the term *mawqī'* (pl. *mawāqī'*) is not arbitrary. In the lexicon of the Bedouin, there were multiple terms available to describe the setting or movement of stars. The most common was *masqaṭ* (place of falling) or *maghrib* (place of setting). However, the Qur'ān avoids these common terms in this specific oath.

Ibn Fāris (d. 395 AH), in his *Muʿjam Maqāyīs al-Lughah*, distinguishes between *wa-qa-ʿa* (to befall/impact) and *sa-qa-ṭa* (to drop/fall). He notes that *wuqūʿ* implies a targeted arrival—an impact that has a consequence—whereas *suqūṭ* can imply a random or accidental dropping. By using *mawāqī'* (impact sites), the text subtly shifts the imagery from a passive "setting" of a star to an active "striking" of a coordinate.<sup>11</sup> This aligns with the Qur'ānic description of stars as projectiles (*rujūm*)

<sup>9</sup> Ibn Manẓūr, *Lisān al-ʿArab* (Beirut: Dār Ṣādir, 1994), s.v. "w-q-ʿ".

<sup>10</sup> Al-Rāghib al-Iṣfahānī, *Al-Mufradāt fī Gharīb al-Qurʿān* (Damascus: Dār al-Qalam, 1992), 876.

<sup>11</sup> Aḥmad ibn Fāris, *Muʿjam Maqāyīs al-Lughah* (Beirut: Dār al-Fikr, 1979), 6:128.

in *Sūrat al-Mulk*, but more importantly, it establishes the "position" as a fixed reality rather than a transient visual phenomenon. The *mawqī'* is the "address" of the star, a calculated node in the cosmic web, whereas the *masqaṭ* is merely where it disappears from the eye. This philological precision anticipates the distinction between the "apparent" setting (visual) and the "true" position (physical/calculated).

### The Syntactic Debate: *Fa-lā Uqsimu*

The verse opens with the particle *lā* (no/not) preceding the oath. This has fueled a centuries-long debate among grammarians. Some philologists, referencing the style of pre-Islamic poetry, argue the *lā* negates the need for an oath entirely. This interpretation paraphrases the verse as: "I do not [need to] swear by the positions of the stars [for the matter is too obvious to require an oath]."<sup>12</sup>

However, the majority consensus of later exegetes, including Al-Zamakhsharī and Jalāl al-Dīn al-Suyūṭī, is that *lā* serves as an intensifier (*zā'idah*). In this rhetorical construction, the negation serves to clear the mind of the listener of any previous objections before affirming the oath. In English rhetoric, this is akin to the phrase, "Nay, I swear it!"<sup>13</sup> Regardless of the grammatical preference, the presence of this particle serves to arrest the listener's attention, signaling that the object of the oath carries immense weight and is distinct from standard oaths found elsewhere in the Qur'ān.

### Comparative Semitics: The Oath in *Jāhili* Poetry vs. Qur'ānic Discourse

To fully appreciate the "tremendousness" (*'aḏamah*) of the oath in verse 76, one must juxtapose it against the literary landscape of pre-Islamic Arabia. The *Jāhili* Arabs were a people of the oath (*qasam*). In the *Mu'allaqāt* (the Seven Hanging Odes), poets frequently swore oaths to establish the truth of their lineage, the fidelity of their lovers, or the inevitability of their vengeance.

However, a structural analysis reveals a striking divergence. Pre-Islamic oaths were almost exclusively **Static** and **Totemic**. Poets swore by "Lāt and 'Uzzā" (idols), by "the House" (Ka'bah), or by their ancestors. These objects were fixed, local, and tangible. In contrast, the Qur'ānic oaths in the Meccan period are **Dynamic** and **Cosmic**. The Qur'ān swears by processes: "By the winds that scatter" (*al-dhāriyāt*), "By the night when it covers" (*wa'l-layli idhā yaghshā*), and here, "By the falling places of the stars."

This shift is epistemologically significant. By shifting the object of the oath from static idols to dynamic cosmic laws (positions/movements), the Qur'ān de-sacralizes nature while re-sacralizing the *source* of nature. The star is no longer a deity to be worshipped (as in the Sabian tradition); it is a subject acting under the

<sup>12</sup> Al-Zamakhsharī, *Al-Kashshāf 'an Ḥaqā'iq Ghawāmiḍ al-Tanzīl* (Beirut: Dār al-Kitāb al-'Arabī, 1947), 4:462.

<sup>13</sup> Jalāl al-Dīn al-Suyūṭī, *Al-Itqān fī 'Ulūm al-Qur'ān* (Beirut: Resalah Publishers, 2008), 1:234.

command (*amr*) of a Higher Power. The use of *mawāqī'*—a noun of place indicating where the star "lands"—subtly emphasizes the star's servitude. It has a place it must go; it is not a free agent. Thus, the philological choice serves a monotheistic function: stripping the heavens of divinity to restore sovereignty to the Creator.<sup>14</sup>

### Comparative Semitics: The Oath in Biblical and Near Eastern Tradition

To understand the radical nature of the Qur'ānic oath in *Sūrat al-Wāqī'ah*, it is instructive to situate it within the broader Semitic philological tradition. The concept of the oath (*qasam*) is foundational to the monotheistic epistemology, appearing frequently in the Hebrew Bible and pre-Islamic epigraphy. However, a comparative analysis reveals a distinct divergence in the *object* of the oath.

In the Hebrew Masoretic Text, Yahweh typically swears by His own Self ("By Myself have I sworn," *Gen 22:16*), or by His holiness (*Amos 4:2*). When creation is invoked, it is usually to establish permanence, as in the Psalms: "He established the earth upon its foundations" (*Ps 104:5*). The focus is often on the stability and unshakeability of the earth.<sup>15</sup>

In stark contrast, the Qur'ānic oath in 56:75 swears by a *transient* event—the "falling" or "positions" of stars. This subverts the standard Near Eastern trope of swearing by the "Eternal Heavens." By invoking the *mawāqī'*—a plural noun indicating specific, calculated points of entry or collapse—the Qur'ān suggests that the heavens themselves are contingent (*mumkin al-wujūd*), not necessary. They are not static deities, as the Babylonians or Sabians believed, but active participants in a divine drama of "falling."

Furthermore, the linguistic structure of the oath shares roots with the Aramaic/Syriac tradition of legal testimony. The particle *lā* (no/nay) serving as an intensifier parallels the emphatic negation found in Syriac legal texts, where a statement is negated to clear the air of falsehood before the truth is announced. Thus, *fa-lā uqsimu* acts as a "clearing of the court"—a rhetorical device that demands total silence and the dismissal of all prior assumptions (such as the soothsayer's claims) before the evidence of the stars is presented.<sup>16</sup>

### CLASSICAL EXEGESIS (TAFSĪR) ANALYSIS

To understand the magnitude of the oath in *Sūrat al-Wāqī'ah*, it is insufficient to merely glance at the surface meaning. We must excavate the strata of Islamic intellectual history, examining how the concept of *mawāqī'* (positions) evolved from the meteorological pragmatism of the desert Arab to the sophisticated cosmological teleology of the Golden Age theologians.

<sup>14</sup> Toshihiko Izutsu, *God and Man in the Qur'an* (Tokyo: Keio Institute, 1964), 142.

<sup>15</sup> William F. Albright, *Yahweh and the Gods of Canaan* (Winona Lake: Eisenbrauns, 1968), 145.

<sup>16</sup> Theodor Nöldeke, *Sketches from Eastern History* (London: A. and C. Black, 1892), 34.

### The Meteorological View (*Al-Tafsīr al-Lughawī*)

The earliest layer of interpretation is grounded in the *environment* of revelation. The pre-Islamic Arabs were navigational experts who relied on the *anwā'* (singular *naw'*), a system of star settings and risings, to predict seasonal changes and rain.<sup>17</sup> When the Qur'ān utilized the term *mawāqī'*, early philologists immediately connected it to the *suqūṭ* (falling) of stars on the western horizon.

Abū Ishāq al-Zajjāj (d. 311 AH), a master of linguistics, argued that the "falling places" referred specifically to the *maghārib* (setting points). In the desert semiotics, the setting of a star was often more significant than its rising, as the *naw'* (setting star) was associated with the coming of rain—a life-giving event in an arid landscape.<sup>18</sup> Thus, when God swears by these "falling places," He is invoking the source of life and order in the physical world. Al-Ṭabarī, prioritizing the consensus of the *Salaf*, relates multiple narrations from Qatādah and Mujāhid validating this view:

"The *mawāqī'* of the stars are their setting places. This implies the vastness of the night and the regularity of the dawn, which are the signs of a Sustainer."<sup>19</sup>

### The Metaphysical and Revelatory View (*Al-Tafsīr al-Ishārī*)

Parallel to the physical interpretation, a profound metaphysical reading emerged, attributed to the companion 'Abdullāh ibn 'Abbās. This interpretation hinges on the polysemy of the word *nujūm* (stars). In Arabic rhetoric, the revelations of the Qur'ān are also referred to as *nujūm* because they descended piecemeal (*munajjaman*) over twenty-three years, rather than as a single volume like the Torah.<sup>20</sup>

Consequently, Ibn 'Abbās interpreted *mawāqī' al-nujūm* not as celestial coordinates, but as "the occasions of revelation"—the specific contexts and times wherein the verses of the Qur'ān "fell" upon the heart of the Prophet Muḥammad <sup>21</sup>. (ﷺ) This reading creates a stunning structural symmetry within the *Sūrah*. If *mawāqī' al-nujūm* refers to the revelation of the verses, then the oath in verse 75 ("I swear by the positions of the stars/verses") is perfectly mirrored by the object of the oath in verse 77 ("Indeed, it is a noble Qur'ān"). The oath thus becomes self-referential, swearing by the very process of revelation to validate the content of revelation.

<sup>17</sup> Varisco, Daniel Martin. "The Origin of the Anwā' in Arab Tradition." *Studia Islamica*, no. 74 (1991): 5–2 <https://doi.org/10.2307/1595894>.

<sup>18</sup> Abū Ishāq al-Zajjāj, *Ma'ānī al-Qur'ān wa-l-rābūh* (Beirut: 'Ālam al-Kutub, 1988), 5:112

<sup>19</sup> Muḥammad ibn Jarīr al-Ṭabarī, *Jāmi' al-Bayān 'an Ta'wīl Āy al-Qur'ān* (Beirut: Mu'assasat al-Risālah, 2000), 23:145.

<sup>20</sup> M.A.S. Abdel Haleem, *Understanding the Qur'an: Themes and Style* (London: I.B. Tauris, 2010), 56.

<sup>21</sup> Al-Suyūṭī, *Al-Itqān*, 1:126.

### The Rationalist Teleology of Al-Rāzī (*Al-Tafsīr al-Kabīr*)

Perhaps the most critical expansion for our thesis comes from the 12th-century theologian Fakhr al-Dīn al-Rāzī. Writing during a period when Islamic astronomy had matured, Al-Rāzī was dissatisfied with purely meteorological explanations. In his *Mafātīḥ al-Ghayb*, he posits that the distinction between the *star* and its *position* is a deliberate allusion to cosmic order (*nizām*).

Al-Rāzī argues that objects in the sub-lunary world are subject to chaos and decay, but the celestial spheres exhibit perfect mathematical precision. He writes:

*"Know that the oath is not by the bodies of the stars, but by their positions... for the wisdom of the Creator is more manifest in the order of their movement and the stability of their orbits than in their mere existence. A body may exist without movement, but a position implies a law."*<sup>22</sup>

This distinction is vital. Al-Rāzī moves the reader from ontology (what the star *is*) to teleology (how the star *behaves*). By swearing by the *mawāqī'*, the Qur'ān highlights the laws of physics that govern the universe. This sets the stage for a modern astrophysical engagement: if the "position" implies a law, what do modern laws tell us about these positions?

**Figure 1:** A long-exposure photograph of star trails. This visualizes the concept of *Mawāqī'* as dynamic "tracks" or "positions" governed by a fixed law (rotation around the pole), rather than static objects. It illustrates Al-Rāzī's argument that the "position implies a law".



### Historical Context: The *Hay'a* Tradition and the Critique of Aristotle

The interpretation of *mawāqī' al-nujūm* played a subtle but pivotal role in the history of Islamic science, particularly in the *'Ilm al-Hay'a* (Science of the Configuration of the Universe). By the 10th century, Muslim astronomers inherited

<sup>22</sup> Fakhr al-Dīn al-Rāzī, *Mafātīḥ al-Ghayb* (Beirut: Dār Iḥyā' al-Turāth al-'Arabī, 1999), 29:189.

the Aristotelian and Ptolemaic models of the universe, which posited that the heavens were immutable, eternal, and composed of a divine "ether."

However, Muslim theologians (*mutakallimūn*) found tension between Aristotle's "eternal heavens" and the Qur'ānic description of stars that "fall," "dim," and have "positions" that are distinct from their bodies. The Qur'ānic terminology of *mawāqī'* implies that stars are discrete physical entities occupying calculated points in a void, rather than ethereal beings embedded in crystalline spheres.<sup>23</sup>

This theological discomfort helped fuel the "Maragha Revolution" in astronomy (13th–14th centuries). Scholars like Naṣīr al-Dīn al-Ṭūsī and Ibn al-Shāṭir began to critique Ptolemaic astronomy, seeking physical consistency over mathematical abstraction. They developed models (like the Tusi Couple) that treated planetary motion as physical bodies moving through calculated points. While they did not possess modern relativity, their insistence on the *physicality* of stellar positions—driven in part by the Qur'ānic insistence on the createdness and order of the cosmos—laid the epistemological groundwork for the eventual Copernican revolution. Thus, verse 56:75 was not merely a devotional text; it was a stimulus for scientific inquiry, encouraging the believer to map the "tremendous" order of the celestial positions.<sup>24</sup>

### The Philosophical Disputation: Eternity vs. Specification (*Takhṣīṣ*)

The hermeneutics of *mawāqī' al-nujūm* became a flashpoint in the medieval conflict between the Hellenistic philosophers (*Falāsifah*) and the orthodox theologians (*Mutakallimūn*). The Peripatetic philosophers, heavily influenced by Aristotelian cosmology, argued for the "Eternity of the World" (*Qidam al-Ālam*). In their model, the celestial spheres were perfect, immutable, and eternal entities that moved in uniform circular motion. They did not "fall," nor did they have specific "impact sites" in the sense of contingent, changing coordinates; they were trapped in eternal perfection.

Abū Ḥāmid al-Ghazālī (d. 1111 CE), in his magnum opus *Tahāfut al-Falāsifah* (The Incoherence of the Philosophers), utilized the specificity of stellar positions to dismantle this Aristotelian staticism. He argued that if the heavens were truly uniform and necessary, stars should be distributed evenly or identically. The fact that stars have specific *mawāqī'*—distinct, irregular arrangements and specific "falling places"—proves that they are subject to *Takhṣīṣ* (Specification).

Al-Ghazālī argued that wherever there is specificity (e.g., Star A is here, not there), there must be a Specifier (*Mukhaṣṣiṣ*)—a Will that chose this arrangement over another. Thus, the "positions of the stars" became a teleological argument for

<sup>23</sup> George Saliba, *Islamic Science and the Making of the European Renaissance* (Cambridge: MIT Press, 2007), 194.

<sup>24</sup> Muzaffar Iqbal, *The Making of Islamic Science* (Kuala Lumpur: IBT, 2009), 88.

the existence of a Volitional Creator<sup>25</sup>, countering the philosopher's God who merely emanates existence by necessity.

This theological defense of a dynamic, specified universe curiously presages modern cosmology. We now know that the universe is not an eternal, static block (as Aristotle thought) nor a steady-state system (as Hoyle thought), but a dynamic, evolving web of matter distributed through specific "positions" determined by the quantum fluctuations of the Big Bang. The "tremendousness" of the oath, in this light, lies in the sheer improbability of these specific positions—the Fine-Tuning that allowed for the formation of galaxies rather than a uniform soup of gas.

### The Inner Horizon: Esoteric Interpretations (*Al-Tafsīr al-Ishārī*)

While rationalist theologians like Al-Rāzī focused on the external order of the cosmos, the tradition of Sufi exegesis (*Tafsīr al-Ishārī*) turned the gaze inward, interpreting the "stars" as metaphors for spiritual illumination. In this paradigm, the macrocosm of the universe is mirrored by the microcosm of the human soul.

Abū al-Qāsim al-Qushayrī (d. 465 AH), in his seminal *Laṭā'if al-Ishārāt*, offers a striking allegorical reading. He posits that the *nujūm* (stars) represent the lights of gnosis (*ma'rifah*) and the *mawāqī'* (falling places) represent the hearts of the believers where these lights settle.<sup>26</sup> Just as the physical stars guide the traveler across the dark desert, the stars of gnosis guide the seeker (*sālik*) through the darkness of the ego (*nafs*).

This interpretation casts a new light on the conditional phrase in verse 76: "if you only knew" (*law ta'lamūna*). Al-Qushayrī suggests that the "tremendousness" of the oath is hidden from the layperson because it refers to a spiritual reality that can only be tasted (*dhawq*), not calculated. The "falling" of divine inspiration into the human heart is a precise, calculated event—a *mawqī'*—governed by spiritual laws just as rigid as the laws of gravity. By swearing by these positions, God validates the sanctity of the human heart as a receptacle for the Qur'ān, creating a parallel between the preserved tablet (*al-lawḥ al-maḥfūz*) in the heavens and the faithful heart on earth.<sup>27</sup>

### SCIENTIFIC HERMENEUTICS AND ASTROPHYSICAL HORIZONS

The "tremendousness" (*ʿaẓamah*) of the oath, conditional on human knowledge (*law ta'lamūna*), suggests that as human capacity to measure the cosmos expands, the weight of the oath increases. Modern astrophysics allows us to

<sup>25</sup> Abū Ḥāmid al-Ghazālī, *The Incoherence of the Philosophers*, trans. Michael Marmura (Provo: BYU Press, 2000), 23.

<sup>26</sup> Abū al-Qāsim al-Qushayrī, *Laṭā'if al-Ishārāt* (Cairo: Dār al-Kātib al-'Arabī, 1968), 3:562.

<sup>27</sup> Annemarie Schimmel, *Mystical Dimensions of Islam* (Chapel Hill: University of North Carolina Press, 1975), 234.

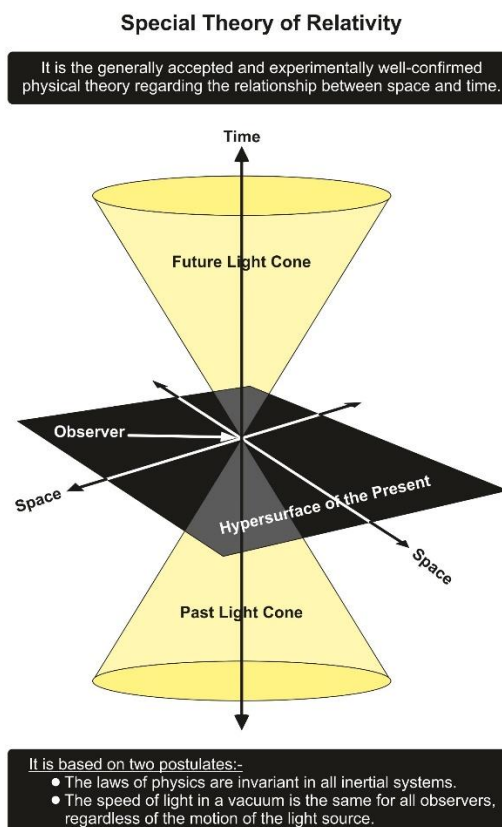
peer into the mechanics of these "falling places" in ways Al-Rāzī could only intuit philosophically.

### The Finite Speed of Light and the Illusion of Presence

The fundamental pillar of modern cosmology is the finite speed of light ( $c$ ), established at approximately 299,792,458 meters per second, which is approximately 300,000 kilometers per second (km/s).<sup>28</sup> These universal constant dictates that we can never see the universe in the "present" tense. We are trapped in a perpetual state of looking into the past.

When we observe a star, we are not seeing the object itself. We are seeing a stream of photons that left the object years, centuries, or millennia ago. This creates a physical dissociation between the *Actual Position* of the star and its *Apparent Position* (or *mawqī'*).

**Figure 2:** A spacetime diagram illustrating the "past light cone." An observer at the center can only see events that lie on the surface of the cone (the past), meaning the observed position of any star is always distinct from its current physical location.



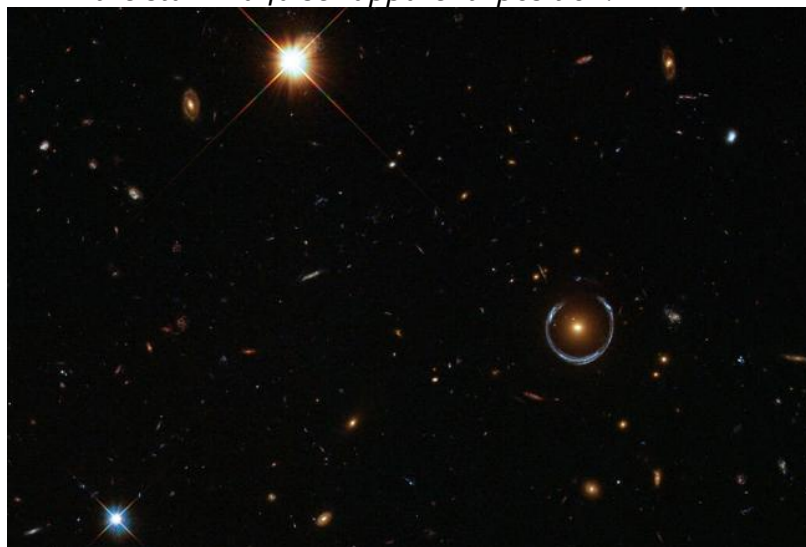
<sup>28</sup> Stephen Hawking, *A Brief History of Time* (New York: Bantam Books, 1988), 26.

For example, the star Betelgeuse is approximately 640 light-years away. The light we see tonight left Betelgeuse in the 14th century. In those 640 years, Betelgeuse has moved through the galaxy. It is physically impossible for the human eye to witness the star where it *is*; we can only witness the *mawqī'* where it *was*. The Qur'ānic phrasing, swearing by the "positions" rather than the "stars," aligns seamlessly with this relativistic reality: the observer interacts only with the trace, never the source.<sup>29</sup>

### Gravitational Lensing: The Bending of Perception

General Relativity, published by Einstein in 1915, introduced the concept that massive objects warp the fabric of spacetime.<sup>30</sup> This leads to the phenomenon of "Gravitational Lensing." When a massive cluster of galaxies sits between Earth and a distant light source, the gravity of the cluster acts like a lens, bending the light as it travels.

**Figure 3:** *An illustration of Gravitational Lensing. The massive object (center) bends the light from the distant star (left), causing the observer on Earth (right) to perceive the star in a false "apparent" position.*<sup>31</sup>



This phenomenon confirms that our perception of stellar "positions" is fundamentally illusory. The light "falls" onto our retinas from a specific angle, but

<sup>29</sup> Guessoum, *Islam's Quantum Question*, 145.

<sup>30</sup> Albert Einstein, "On the Electrodynamics of Moving Bodies," *Annalen der Physik* 17 (1905): 891.

<sup>31</sup> Gravitational Lensing, Harvard & Smithsonian, <https://www.cfa.harvard.edu/research/topic/gravitational-lensing>.

the star is geometrically located elsewhere.<sup>32</sup> The *mawāqī'* are thus deceptive; they are coordinates of arrival, not coordinates of origin. The Qur'ān's use of the term *mawāqī'* accommodates this complexity, acknowledging that the "site of falling" (incidence) is the only reality accessible to the observer.

### The Ultimate "Falling": Stellar Collapse and Black Holes

Finally, we must consider the lexical root w-q-ʿ (to fall or collapse) in the context of stellar evolution. Stars are not eternal; they are engaged in a constant battle between the crushing force of gravity and the outward pressure of nuclear fusion. When a massive star runs out of fuel, gravity wins, and the star collapses.<sup>33</sup>

If the star is sufficiently massive (more than 20 times the mass of our Sun), it collapses into a singularity—a **Black Hole**.<sup>34</sup> In this cataclysmic event, the star literally "falls" out of the observable universe. It creates a region of spacetime with such intense gravity that not even light can escape. These are the ultimate *mawāqī'*: regions where stars once existed but have now collapsed into oblivion. These "positions" remain gravitationally active, yet the star itself has vanished from sight. To swear by the "falling places" of stars, in an era that now understands the violence of supernovae and the silence of black holes, renders the description *qasamun 'azīm* (a tremendous oath) terrifyingly accurate.

### Cosmic Fine-Tuning and the Anthropic Principle

Beyond the mechanics of black holes and light speed, modern cosmology offers a broader framework that amplifies the "tremendousness" of stellar positions: the concept of Fine-Tuning. In the latter half of the 20th century, physicists discovered that the fundamental constants of the universe—such as the gravitational constant ( $G$ ) and the cosmological constant ( $\Lambda$ )—are set to incredibly precise values.

If the "positions" (distribution) of matter in the early universe had been slightly different, stars would never have formed. The theoretical physicist Roger Penrose calculated that the probability of the universe beginning in a state capable of producing stable stars and galaxies is 1 in  $10^{10^{123}}$ .<sup>35</sup> This is a number so vast that it exceeds the number of atoms in the observable universe.

The Qur'ānic term *mawāqī'* implies not just a location, but a *placement*—a deliberate setting down. This resonates with the Anthropic Principle, which suggests that the universe appears "fixed" to allow for the existence of observers. If the "falling places" of the primordial matter were shifted by a fraction of a percent, the universe

<sup>32</sup> Sean Carroll, *Spacetime and Geometry: An Introduction to General Relativity* (Cambridge: Cambridge University Press, 2019), 284.

<sup>33</sup> George Gamow, *The Creation of the Universe* (New York: Viking Press, 1952), 67.

<sup>34</sup> Kip S. Thorne, *Black Holes and Time Warps* (New York: W.W. Norton, 1994), 132.

<sup>35</sup> Roger Penrose, *The Emperor's New Mind* (Oxford: Oxford University Press, 1989), 344.

would have either collapsed into a black hole immediately or expanded too rapidly for stars to ignite.<sup>36</sup> Thus, the oath by the *mawāqī'* can be read as an oath by the **precision of cosmic architecture**.

### **Multidimensionality and the Plurality of Positions**

Theoretical physics offers one final, provocative lens through which to view the plural form *mawāqī'*. Why does the Qur'ān use the plural "positions" for stars that appear distinct? String Theory and M-Theory suggest that our observable universe may be a 3-dimensional "brane" floating in a higher-dimensional bulk.

In this theoretical framework, gravity is a force that can leak across dimensions. The "position" of a massive object like a star might not be limited to its *x, y, z* coordinates in our space, but may extend into higher dimensions. The term *mawāqī'* (plural) could thus be interpreted as referencing the multidimensional loci of stellar matter. While this remains in the realm of theoretical speculation, the "tremendousness" of the oath accommodates such complexity. It suggests that the "location" of a star is not a simple point on a 2D sky map, but a complex, multidimensional reality that anchors the fabric of spacetime itself. Just as the "positions" hold the stars in the sky, the unseen dimensional constants hold the universe together, preventing cosmic disintegration.

### **The Quantum Vacuum: Absence as Presence**

While General Relativity deals with the macro-scale curvature of spacetime, Quantum Field Theory (QFT) offers a microscopic lens that further illuminates the term *mawāqī'*. In QFT, "empty space" is not empty; it is a seething ocean of virtual particles appearing and disappearing. A "position" in space is not a void, but a locus of intense activity and potential energy.

The lexical choice of *mawāqī'* (positions/sites) rather than *nujūm* (stars) resonates with the quantum realization that the *field* is more fundamental than the *particle*. A star is merely an excitation of a quantum field at a specific coordinate. If the star collapses or moves, the coordinate (the *mawāqī'*) remains as a point within the fabric of the field.

This is most evident in the phenomenon of "Zero-Point Energy." Even at absolute zero, every "position" in the universe contains a baseline energy fluctuation. Thus, when the Qur'ān swears by the "positions," it is swearing by the fundamental fabric of reality that sustains the star, not the star itself. The "tremendousness" (*ʿazamah*) of the oath may well refer to this hidden, infinite energy density that exists in every cubic centimeter of "empty" space—a power so vast that physicist Richard Feynman once calculated that the energy in a vacuum the size of a lightbulb could

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<sup>36</sup> Paul Davies, *The Goldilocks Enigma: Why Is the Universe Just Right for Life?* (New York: Houghton Mifflin, 2008), 156.

boil all the world's oceans.<sup>37</sup> To swear by the *mawqī'* is to swear by this hidden, sustaining power that undergirds the visible universe.<sup>38</sup>

### SYNTHESIS: THE EPISTEMOLOGICAL BRIDGE

**Table 1:** The Hermeneutical Evolution of *Mawāqī' al-Nujūm*

Era/Approach	Primary Interpreter	Meaning of Mawāqī'	Epistemological Focus
<b>Pre-Islamic (Jāhili)</b>	Bedouin Poets	Setting points of stars ( <i>Anwā'</i> )	<b>Survival:</b> Rain, seasons, and navigation.
<b>Classical Philology</b>	Al-Zajjāj / Ṭabarī	Western horizons / Setting times	<b>Visual:</b> The observable regularity of night and day.
<b>Metaphysical</b>	Ibn 'Abbās	Occasions of Revelation ( <i>Nuzūl</i> )	<b>Guidance:</b> The "descending places" of divine speech.
<b>Rationalist</b>	Al-Rāzī	Calculated Orbits & Laws	<b>Teleological:</b> The mathematical order ( <i>Nizām</i> ) implying a Creator.
<b>Sufi / Esoteric</b>	Al-Qushayrī	Hearts of the Believers	<b>Spiritual:</b> The locus where gnosis ( <i>Ma'rifah</i> ) settles.
<b>Modern Scientific</b>	Contemporary Physics	Spacetime Coordinates / Black Holes	<b>Physical:</b> The relativistic distinction between image and reality.

We must now ask: Why does the Qur'ān utilize this specific scientific nuance? Is it merely a display of knowledge? The context of the *Sūrah* suggests a pedagogical purpose. The oath acts as a bridge between the physical and the metaphysical. Verse 76 serves as a pivot: "And indeed, it is a tremendous oath, if you only knew." This conditional clause (*law ta'lamūna*) is an invitation to inquiry.<sup>39</sup>

As human knowledge of the cosmos has expanded—from the naked-eye observations of the Bedouin to the James Webb Space Telescope—the "tremendousness" of the oath has scaled up. To the 7th-century Arab, it was tremendous because the stars guided them through the trackless desert. To the

<sup>37</sup> Richard Feynman, *QED: The Strange Theory of Light and Matter* (Princeton: Princeton University Press, 1985), 112.

<sup>38</sup> Werner Heisenberg, *Physics and Philosophy* (New York: Harper & Row, 1958), 44.

<sup>39</sup> Muḥammad al-Ṭāhir Ibn 'Āshūr, *Al-Taḥrīr wa'l-Tanwīr* (Tunis: Dār Saḥnūn, 1984), 27:312.

21st-century scientist, it is tremendous because the "positions" involve the warping of spacetime and the immense distances of the expanding universe.<sup>40</sup>

### Intertextual Analysis: Al-Wāqī'ah vs. Al-Najm

To fully grasp the rhetorical nuance of 56:75, it is instructive to compare it with the other major stellar oath in the Qur'ān, found in Sūrat al-Najm: "By the Star when it descends" (*Wa'l-najmi idhā hawā*) (53:1).

While both verses involve stars and a downward movement (*suqūṭ* vs. *hawā*), the focus differs significantly. *Sūrat al-Najm* swears by the *singular* star in the act of descending. The verb *hawā* implies a rapid, dynamic descent, often linked to the shooting star (*shihāb*) used to drive away devils, or the descent of the Angel Jibrīl. The focus here is on **Revelation as an Event**—a dynamic breakthrough from the heavens to the earth.

In contrast, *Sūrat al-Wāqī'ah* swears by the *plural* "positions" (*mawāqī'*). The noun form implies stability, structure, and law. The focus here is on **Revelation as an Order**—a fixed, unchangeable truth protected in a "hidden book" (*kitāb makhnūn*). This distinction supports our central thesis. *Sūrat al-Najm* emphasizes the *contact* between heaven and earth (inspiration), while *Sūrat al-Wāqī'ah* emphasizes the *separation* and *majesty* of the source. By swearing by the "positions"—which, as we have seen, involve vast distances, time delays, and invisible gravitational anchors—the text emphasizes that the Qur'ān originates from a realm far beyond human tampering.<sup>41</sup>

### The Eschatological Horizon: The Final "Falling"

Finally, the philological thread of *wuqū'* (falling) ties the oath in verse 75 back to the very first verse of the Sūrah: *Idhā waqa'at al-wāqī'ah* ("When the Falling Event falls" or "When the Inevitable occurs"). The entire Sūrah is bracketed by this verb.

- **Verse 1:** The "Falling" of the Day of Judgment (*al-Wāqī'ah*).
- **Verse 75:** The "Falling Places" of the Stars (*Mawāqī'*).

This creates a powerful eschatological parallelism. Just as the stars have precise, calculated times and places where they must "fall" (set or collapse), the Universe itself has a precise, calculated *mawqī'*—a point in time where it will collapse. The physics of the stars—their birth, fuel consumption, and inevitable collapse into black holes—serves as a physical memento mori for the cosmos itself.<sup>42</sup>

If the "falling" of the stars is governed by unbreakable laws of gravity and entropy, then the "Falling" of the Hour (the Judgment) is governed by equally

<sup>40</sup> El-Naggar, *The Scientific Miracles*, 45.

<sup>41</sup> Mustansir Mir, "The Qur'anic Oaths: Farāhī's Interpretation," *Islamic Studies* 29, no. 1 (1990): 12.

<sup>42</sup> Fazlur Rahman, *Major Themes of the Qur'an* (Chicago: University of Chicago Press, 2009), 122.

unbreakable laws of divine justice. The stars cannot refuse to set; the universe cannot refuse to end. The oath thus functions as a syllogism: If you accept the tremendous order of the stellar collapse (which you see), you must accept the tremendous reality of the cosmic collapse (which is prophesied). The "positions" of the stars are the clock-hands of the apocalypse, marking the time until the final *Wāqī'ah*.<sup>43</sup>

### **Beyond Concordism: Avoiding the "God of the Gaps"**

A critical objection to scientific exegesis is the "God of the Gaps" fallacy—the theological risk of pinning the veracity of Scripture on specific, changeable scientific theories. If one equates *mawāqī'* strictly with "Black Holes," and future physics discards the theory of Black Holes, the validity of the Qur'ān would ostensibly be compromised.

The interpretation proposed in this paper avoids this pitfall by focusing on **Epistemic Structure** rather than **Specific Phenomena**. The argument is not that the Qur'ān mentions "General Relativity" by name. Rather, the argument is that the Qur'ānic choice of *vocabulary* (specifically the distinction between the object and its locus) anticipates a **layered reality**.

Whether the scientific model is Ptolemaic (spheres), Newtonian (gravity), or Relativistic (spacetime), the distinction between the *star* and its *position* remains valid. In the Ptolemaic view, the position is a calculated point on a sphere; in the Newtonian view, it is a center of mass; in the Relativistic view, it is a coordinate in curved spacetime. The "tremendousness" of the oath holds true in all epochs because it points to the **complexity of the system** regardless of the specific physical model used to describe it. This approach aligns with the "Integration Model" proposed by Ian Barbour<sup>44</sup>, where science and religion are viewed as complementary languages describing a single, coherent reality, rather than conflicting or completely overlapping magisteria.<sup>45</sup>

### **The Ethics of Awe: From Cosmology to *Khushū'***

Ultimately, the Qur'ānic discourse on the cosmos is not merely descriptive but prescriptive. The "tremendousness" (*‘aẓamah*) of the oath in verse 76 is immediately followed by the command in the final verse of the Sūrah: "*So glorify the praises of your mighty Lord*" (56:96). This structural linkage indicates that the purpose of understanding the *mawāqī'* is to produce *Tasbīḥ* (glorification).

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<sup>43</sup> Al-Ghazālī, *The Remembrance of Death and the Afterlife*, trans. T.J. Winter (Cambridge: Islamic Texts Society, 1989), 56.

<sup>44</sup> Ian G. Barbour, *Religion and Science: Historical and Contemporary Issues* (San Francisco: HarperOne, 1997), 98.

<sup>45</sup> John C. Lennox, *God's Undertaker: Has Science Buried God?* (Oxford: Lion Books, 2009), 47.

In Islamic epistemology, scientific inquiry is a form of worship (*'ibādah*) known as *Tafakkur* (reflective thought).<sup>46</sup> When the believer contemplates the vast distances, the deceptive nature of light, and the violent collapse of stars, the natural response is a negation of human arrogance. If the massive stars are subject to such rigid laws of "falling" and "positioning," how much more is the human subject dependent on the Divine command?

The oath thus serves as a tool for *Khushū'* (humility). It de-centers the human observer. Just as we cannot see the star where it *is*, only where it *was*, we cannot comprehend the full reality of God's plan, only its traces in the universe. This acceptance of epistemic limitation—knowing that reality is greater than our perception—is the essence of Islamic submission (*Islām*). The "tremendous oath" breaks the illusion of human self-sufficiency, forcing the intellect to bow before the Unseen (*Al-Ghayb*), just as the stars bend to the laws of gravity.<sup>47</sup>

## CONCLUSION

The oath of *Sūrat al-Wāqī'ah* stands as a testament to the timelessness of the Qur'ānic text. By selecting the term *mawāqī'*—a word that allows for the separation of the star from its locus—the text accommodates a reality that would remain hidden from humanity for another millennium.

This paper has argued that the "tremendous oath" is not a static statement but a dynamic one. It grows with us. Whether understood as the setting of stars by the ancient nomad, the metaphorical "stars" of revelation by the classical exegete, or the relativistic "look-back time" by the modern physicist, the oath remains true. It reminds the reader that reality is deeper than perception, and that the One who ordered the physics of the distant stars is the same One who ordered the ethics of the revelation.<sup>48</sup>

The integration of scientific hermeneutics, when applied with philological rigor, does not secularize the text but rather re-enchants the cosmos. It demonstrates that the *Āyāt* (signs) in the horizons are in perfect concord with the *Āyāt* in the Book, validating the Qur'ānic claim: "We will show them Our signs in the horizons and within themselves until it becomes clear to them that it is the truth" (41:53).<sup>49</sup>

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<sup>46</sup> Al-Ghazālī, *The Book of Knowledge (Kitāb al-'Ilm)*, trans. Nabih Amin Faris (Lahore: Sh. Muhammad Ashraf, 1962), 45.

<sup>47</sup> Ibn al-Qayyim, *Miftāḥ Dār al-Sa'ādah* (Cairo: Dār al-Ḥadīth, 2002), 1:234.

<sup>48</sup> Mehdi Golshani, *The Holy Qur'an and the Sciences of Nature* (Binghamton: IGCS, 1997), 88.

<sup>49</sup> Seyyed Hossein Nasr, ed., *The Study Quran* (New York: HarperOne, 2015), 1312.

## REFERENCES

- Abdel Haleem, M.A.S. *Understanding the Qur'an: Themes and Style*. London: I.B. Tauris, 2010.
- Albright, William F. *Yahweh and the Gods of Canaan*. Winona Lake: Eisenbrauns, 1968.
- Al-Ghazālī, Abū Ḥāmid. *The Incoherence of the Philosophers*. Translated by Michael Marmura. Provo: BYU Press, 2000.
- Al-Ghazālī, Abū Ḥāmid. *The Book of Knowledge (Kitāb al-'Ilm)*. Translated by Nabih Amin Faris. Lahore: Sh. Muhammad Ashraf, 1962.
- Al-Ghazālī, Abū Ḥāmid. *The Remembrance of Death and the Afterlife*. Translated by T.J. Winter. Cambridge: Islamic Texts Society, 1989.
- Al-Iṣfahānī, Al-Rāghib. *Al-Mufradāt fī Gharīb al-Qur'ān*. Damascus: Dār al-Qalam, 1992.
- Al-Naggar, Zaghloul. *The Scientific Miracles in the Holy Quran*. Beirut: Dar al-Ma'rifah, 2005.
- Al-Qushayrī, Abū al-Qāsim. *Laṭā'if al-Ishārāt*. Cairo: Dār al-Kātib al-'Arabī, 1968.
- Al-Rāzī, Fakhr al-Dīn. *Mafātīḥ al-Ghayb*. Beirut: Dār Iḥyā' al-Turāth al-'Arabī, 1999.
- Al-Suyūṭī, Jalāl al-Dīn. *Al-Itqān fī 'Ulūm al-Qur'ān*. Beirut: Resalah Publishers, 2008.
- Al-Ṭabarī, Muḥammad ibn Jarīr. *Jāmi' al-Bayān 'an Ta'wīl Āy al-Qur'ān*. Beirut: Mu'assasat al-Risālah, 2000.
- Barbour, Ian G. *Religion and Science: Historical and Contemporary Issues*. San Francisco: HarperOne, 1997.
- Carroll, Sean. *Spacetime and Geometry: An Introduction to General Relativity*. Cambridge: Cambridge University Press, 2019.
- Davies, Paul. *The Goldilocks Enigma: Why Is the Universe Just Right for Life?* New York: Houghton Mifflin, 2008.
- Einstein, Albert. "On the Electrodynamics of Moving Bodies." *Annalen der Physik* 17 (1905): 891.
- Feynman, Richard. *QED: The Strange Theory of Light and Matter*. Princeton: Princeton University Press, 1985.
- Gamow, George. *The Creation of the Universe*. New York: Viking Press, 1952.
- Golshani, Mehdi. *The Holy Qur'an and the Sciences of Nature*. Binghamton: IGCS, 1997.
- Guessoum, Nidhal. *Islam's Quantum Question: Reconciling Muslim Tradition and Modern Science*. London: I.B. Tauris, 2011.
- Hawking, Stephen. *A Brief History of Time*. New York: Bantam Books, 1988.
- Heisenberg, Werner. *Physics and Philosophy*. New York: Harper & Row, 1958.
- Ibn 'Āshūr, Muḥammad al-Ṭāhir. *Al-Taḥrīr wa'l-Tanwīr*. Tunis: Dār Saḥnūn, 1984.
- Ibn al-Qayyim. *Miftāḥ Dār al-Sa'ādah*. Cairo: Dār al-Ḥadīth, 2002.
- Ibn Fāris, Aḥmad. *Mu'jam Maqāyīs al-Lughah*. Beirut: Dār al-Fikr, 1979.
- Ibn Manẓūr. *Lisān al-'Arab*. Beirut: Dār Ṣādir, 1994.

- Iqbal, Muzaffar. *The Making of Islamic Science*. Kuala Lumpur: IBT, 2009.
- Izutsu, Toshihiko. *The Structure of the Ethical Terms in the Koran*. Tokyo: Keio Institute, 1959.
- Izutsu, Toshihiko. *God and Man in the Qur'an*. Tokyo: Keio Institute, 1964.
- Kunitzsch, Paul. *The Arabs and the Stars: Texts and Traditions on the Fixed Stars and Their Influence in Medieval Europe*. Northampton: Variorum Reprints, 1989.
- Lennox, John C. *God's Undertaker: Has Science Buried God?* Oxford: Lion Books, 2009.
- Mir, Mustansir. "The Qur'anic Oaths: Farāhī's Interpretation." *Islamic Studies* 29, no. 1 (1990): 12.
- Nasr, Seyyed Hossein. *The Garden of Truth*. New York: HarperOne, 2007.
- Nasr, Seyyed Hossein, ed. *The Study Quran*. New York: HarperOne, 2015.
- Neuwirth, Angelika. *Scripture, Poetry, and the Making of a Community*. Oxford: Oxford University Press, 2014.
- Nöldeke, Theodor. *Sketches from Eastern History*. London: A. and C. Black, 1892.
- Penrose, Roger. *The Emperor's New Mind*. Oxford: Oxford University Press, 1989.
- Rahman, Fazlur. *Major Themes of the Qur'an*. Chicago: University of Chicago Press, 2009.
- Saliba, George. *Islamic Science and the Making of the European Renaissance*. Cambridge: MIT Press, 2007.
- Schimmel, Annemarie. *Mystical Dimensions of Islam*. Chapel Hill: University of North Carolina Press, 1975.
- Thorne, Kip S. *Black Holes and Time Warps*. New York: W.W. Norton, 1994.
- Varisco, Daniel Martin. "The Origin of the Anwā' in Arab Tradition." *Studia Islamica*, no. 74 (1991).