

Quranic Epistemology and Knowledge Construction: Medieval Models

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Abstract

This study explores the Quran-inspired knowledge construction in the medieval Islamic world, researching how the Quran served as a foundational search for knowledge acquirement in the medieval period. It examines epistemological models, revealing the Quranic influence that inspired systems of knowledge construction. The medieval period, especially the late Middle Ages, was an era when several new and basic theories were found out. The study also traces how the Islamic scholars in the medieval period, especially scientists and philosophers among them, discover new theories and information depending on the Quran as their source. The researcher mainly aims at benefiting society and deepening people's faith, delving into the Quranic epistemology, which promotes a holistic system of learning. In the current world, where the Islamic legacy is falling down, this study aims to change the people's hearts by revealing the Quran's wonders before them. The methodology of this qualitative study is the Holy Quran with its interpretations and the medieval Islamic discovery, along with the integration of theology, philosophy, and science. The results show that the Quran's order to seek, reflect, and understand developed an excellent learning tradition that strengthened faith beside knowledge acquisition. The medieval Islamic scholars have discovered several basic theories in the fields of science, theology, philosophy, and many more, which depended on the holy Quran. In the medieval Islamic world, scholars acquired different models of knowledge that connected religious understanding with scientific and philosophical inquiry. The Quran's light of knowledge, mainly its holistic method of education, was completely relevant for knowledge construction in the medieval period. In conclusion, the study highlights the lasting value of the Quran-inspired approaches to knowledge and its relevance for modern education, confirming these medieval models show how knowledge was seen as both a divine gift and a human responsibility. Finally, the Quran's guidance with its orders and revelations encouraged observation, questioning, and moral purpose in learning, shaping an education style that joined faith with knowledge acquirement.

Quranic Epistemology and Knowledge Construction: Medieval Models

1. Introduction

The Holy Qura'n, the ultimate source of guidance, occupies a significant role in the tradition and culture of Islam in all ways and every generation, lasting to the day of judgement. It not just serves as a source of religious guidance for Muslims, but above all, it finds its space as the ultimate epistemology framework for human inquiry. Besides all the rules, histories, and thoughts, the Quranic worldview reaches knowledge, *'ilm*, as a sacred pursuit for the believers that shapes material and spiritual realms. The revelations and reasons encourage education along with the divine signs and rational engagement with creation. The Holy Qura'n studies everything. Besides the religious knowledge, it examines the scientific

approach and philosophical touch of the Qura'n, inspiring thousands of the Western and European thinkers.

During the Medieval period, 8th to 13th centuries CE, the Islamic world developed a highly sophisticated model of knowledge depending on the revelations and reasons. This period changed Islam's popularity by developing an inspired civilization that cherished inquiry, different methodologies for knowledge acquisition, and institutionalized learning in unprecedented ways. Islamic scholars such as Al Farabi, Al Ghazali, and Ibn Hytham built a legacy of philosophical, scientific, and theological traditions under the Quranic banner of *Tawhid*, the divine unity. This era delved into the education of Quranic interpretations in different aspects, under scholars like Imam Qurtubi and Imam Razi.

As this was the Golden Age of Islam, studies and research on Quranic influence and inspiration for knowledge acquisition in these years are necessary to establish the epistemology of the Quranic thoughts in the current generations. This paper explores how the Qura'n inspired epistemological models in Medieval Islam and how these models remain intellectually and ethically today.

2. The Quranic Foundations of Knowledge

The Qura'n ensures profound significance for knowledge acquisition throughout its Holy verses. The very first revelation to the Prophet (S) commands literacy and learning. *اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ*, "Read in the name of your lord." This verse highlights the value of acquiring knowledge and education, situating reading and reflection as sacred acts. The Qura'n does not limit knowledge to religious law. Beyond those, it extends knowledge to observation of the natural world. Acquiring knowledge is not just an abstract notion in the Qura'n; instead, it is a path to recognizing the divine order. The Qura'n often asks the believers, "Will you not then reflect?" There is a clear message from the Qura'n to read and reflect on all knowledge. The Quranic term *'ilm* for knowledge has come several times as prayers, questions, and orders to the believers. *Ilm* is considered a divine gift from the god and a moral responsibility of each and every Muslim, which inspired the ancient scholars to delve into deep insights of knowledge in every single moment. This Holy book calls repeatedly to *Tafakkur*, *Nazar*, and *Tadabbur*, which depict reflection, observation, and pondering on creation and revelation. It asks a question to humanity, *أَفَلَا يَتَذَكَّرُونَ الْفُرَانَ*, "Do They not ponder upon the Qura'n," sharing a message to think and ponder the thoughts of the Qura'n. The Holy Qura'n talks about all information and global theories. Besides the divine science, it gives indications on natural and social science and proclaims to the world in its Holy verse. *إِنَّ فِي خَلْقِ السَّمَاوَاتِ وَالْأَرْضِ وَالاخْتِلَافِ اللَّيْلِ وَالنَّهَارِ* "Verily! In the creation of the heavens and the earth, and in the alternation of night and day, there are indeed signs for men of understanding." The term "*ayāt*," signs, applies both to verses of revelation and to the phenomena of creation, indicating that the Qura'n envisions nature itself as a book to be read and interpreted. Just like the ayah indicates, the ancient Islamic scholars played that role and found out every aspect of knowledge throughout the years. Scholars like Imam Ghazali, Ibn Sina, and Ibn Rushd created the Islamic legacy by researching deeply and finding new theories in science, theology, and philosophy, connecting their discoveries with the Holy Qura'n. Consequently, Muslims viewed science and reason as acts of worship and as ways to understand Allah's creation. The importance of the scientific Qura'n is shown holistically, especially because it serves as one of the prime approaches to presenting the connection between the Qura'n and life from different angles.

Moreover, above all the Muslims' scientific and philosophical discoveries depending on the Holy Qura'n, scholars like Imam Razi and Imam Qurtubi had researched and delved deeply into the thoughts of the Holy Qura'n, which helped for the rise of thousands of Quranic interpretations throughout the years,

when they integrated reason as their ultimate source. Totally, the Holy Qura'n promoted education and knowledge acquirement in a way that it is a divine order to the believers, strengthening their faith in the God Allah, the Exalted. The Islamic scholars took the order as their responsibility and examined the Quranic knowledge, which became a sake for the development of '*ilm-al-Tafsīr*' (the Quranic exegesis), '*ilm al lughah*' (linguistics), and the scientific basis.

3. The Quranic Epistemology: Concept and Foundations

Firstly, epistemology is a term that refers to the study of knowledge. It discusses how the knowledge is acquired, validated, and applied. In the Quranic worldview, knowledge, or '*ilm*', is not only intellectual but spiritual, ethical, and revelatory, making it one of the most wonderful scriptures in the world. Quranic epistemology is the study of how humans know the *ḥaqq*, which means truth, through the sources and methods revealed by Allah. It integrates four terms: Revelation, Reason, Observation, and spiritual insight, which are depicted in Arabic terms as *Wahy*, '*Aql*', *Tajrībah*, and *Basīrah*. The Quranic insight tells us that the knowledge acquired by each believer is a blessing from Allah, and only a limited knowledge is revealed to the world by Allah; the rest only God and his beloved Prophet (S) know. The Qura'n clearly states this theory in chapter 17, where Allah says, "وَمَا أُوتِيتُمْ مِنَ الْعِلْمِ إِلَّا قَلِيلًا", "And you have not been given of knowledge except a little." This verse humbles the human intellect, reminding us that all knowledge ultimately emanates from Allah, and human understanding is partial. If we look into the purpose of knowledge in the Qura'n, we find that the Quranic knowledge is theological, and it is revealed to the believers, serving a purpose: to recognize Allah, to establish justice, and to perfect human conduct. The goal of the believers and scholars of the Qura'n must be *Ma'rifah*, the divine realization. It should not be just accumulation of facts, but awareness of meaning and purpose. Now, let us take a short outlook on the integrations of Quranic epistemology.

Firstly, Revelation, or *Wahy* in Arabic, is the highest and most certain source of knowledge because it originates directly from Allah, the Exalted, the All-Knowing. Revelation provides and gives the exact knowledge and the absolute truth about metaphysics, ethics, and the unseen things (*Al-ghayb*), which reason alone can't reach. Therefore, it is specialized only for the Prophets, and it has stopped after the farewell of the Last Prophet, Muhammed (S). From that moment, prominent scholars construct new knowledge depending on the revelations revealed to the Prophet (S), which he shared with his companions partially.

Secondly, the reason, or '*aql*', as the Arabic term, is the instrument of understanding after studying the revelations deeply. The Reason can only happen by depending on the divine revelations to the Prophet(s). It allows humans to decode the divine order, connecting empirical knowledge to metaphysical truth, just the next step as the revelation serves as the epistemic foundation upon which all other forms of knowledge are evaluated. Well, '*Aql*' is seen as a gift and trust from Allah, enabling humans to interpret divine signs in both revelation and nature. Allah asks and repeats the question over 13 times in the Qura'n: أَفَلَا تَعْقِلُونَ, "Will you not then use your reason?" This verse examines the significance of reason in acquiring knowledge. Lastly, *Mushāhada* and *Ilhām*, which depict sensory experience and inner knowledge, are not common enough that every scholar can rely on them. Instead, it is specialized mostly for the Sūfis and the people who are much closer to Allah, where, in these, they acquire inner knowledge that nobody knows, which is gained through spiritual purity and divine inspiration. *Mushāhada* encourages the observation of the natural world, viewing it as a manifestation of divine signs, which is a bit different from *ilhām*, which Allah provides his servant unseen and unknown knowledge that the public may not know. It becomes

crystal clear with Allah's words: *وَاتَّقُوا اللَّهَ ۖ وَيُعَلِّمُكُمُ اللَّهُ* "Be mindful of Allah, and Allah will teach you." Here, *taqwā*, or God consciousness, becomes an epistemic condition; that purity of the heart grants access to deeper understanding. Totally, the Quranic epistemology serves beneficially for knowledge acquisition on the basis of the Qura'n. It helped the scholars' and Sūfis' deeper understanding of the Qura'n and of new statements in science and philosophy, along with the great insights into the Quranic thoughts.

4. Importance of the Islamic Medieval Period

The Islamic Medieval period, also known as the Islamic Golden Age, 8th to 13th centuries CE, was a classical era in the history of Islam. Even though the Muslims started the development in the educational sector before and after this age, this was the classical era of Islam that completely succeeded in building an intellectual legacy in the Islamic development. In this period, Muslims had achieved a lot, including the great historical conquests, integrated innovations, and the rise of new foundational concepts of knowledge. This period had a crucial role that illuminated the power of Islam and spread its fame and message all around Europe and the Western regions. Firstly, a short look into the historical conquests and invasions: Muslims had conquered the Iberian Peninsula and Spain under Tariq Bin Ziyad in 711 CE, which made a turning point for the Islamic spread and knowledge development in the European regions. It developed the Islamic Al-Andalus that became a center of science, philosophy, architecture, and art. It also helped the introduction of Arabic numerals and Arabic knowledge into Medieval Europe. Proudly, Islam has also captured the lands of North African regions and conquered the famous dynasties like the Byzantine and Sasanian Empires in these years, under the Umayyad and Abbasid caliphates.

Secondly and mainly, this classical era was a remarkable age that enlightened an excellent legacy of Islam in the educational development. The Islamic scholars examined a great pursuit in the educational sector of Islam, initiating several observatories and research centers in different regions. The Bayt-Al-Hikma in Baghdad and Dar-Al-Hikma in Cairo were the popular research centers in the Islamic world. Prominent scholars learned and worked here, which led to their splendor and discovery of new theories in different fields like science, philosophy, mathematics, logic, linguistics, and theology. The heyday of Islamic science is generally considered to have occurred between 700 AD and 1350 AD, although its origins trace back to earlier centuries. This golden period later laid the foundation for the works of modern Islamic scholars, who continue to build upon its rich legacy even today. The development of this Islamic science and philosophy was illustrated in the Abbasiyah period, especially during the caliphate period of Al-Ma'mūn. Various translations from Greek civilization into Arabic were rapid, which encouraged research progress. As a result of this rapid translation in the era of Caliph Al-Ma'mūn, the library Dar-Al-Hikmah was established. Waqf property was given to those who performed full-time translation. Likewise, numerous innovations and discoveries were made depending on the Holy Qura'n and harmonizing it with the Greek scriptures. Moreover, the rise of Quranic interpretations and exegesis commenced in this era. Revealing and reasoning, several Tafsīr scholars emerged when thousands of Tafsīrs were written and translated into different languages. Though this golden age inspired us a lot and created a remarkable legacy in Islamic history, the saddest, yet in a way, empowering truth is that thousands of Islamic manuscripts, written and translated by brilliant Muslim scholars, were later seized by Europeans after their reconquest of Muslim lands. This loss dimmed the radiance of Islamic intellectual heritage, which might have risen even higher and surpassed countless European innovations had those treasures remained in their rightful hands. So, totally, the Islamic Golden Age built a glorious legacy all over the world and spread its

power, especially in the European regions. Definitely, it was the best period in Islamic history after the Prophetic era.

5. Medieval Epistemological Models and Knowledge Construction

As we mentioned in the whole article, the Islamic classical age was fully a sustainable era for Islam. It built an intellectual legacy in the Quranic epistemology and knowledge construction. The journey of this development age was very long, and throughout this ultimate journey, scholars revealed different models of knowledge acquisition and created an epistemic environment in the Islamic world. Several institutions and research centers were built for studies, which helped in the academic development of scholars. The Islamic scholars in this age were the exact reasons for this legacy, who innovated multiple scientific and philosophical theories. The remarkable books of the scholars made them remembered throughout history. Most of the Quranic interpretations were also written in this age. Now, let's delve into the inspiring epistemic models that took place in the Islamic Golden Age, the classic period.

5.1 Institutionalization of Knowledge: The Medieval Framework

The Qur'anic worldview led to a civilization structured around learning. Educational facilities increased across the famous regions. Bayt-Al-Hikma, the House of Wisdom, established in the 9th century in Baghdad under Caliph Al Mamūn, became a center for translation and scientific research. It was one of the famous research centers that improved the studies of the scholars who learned and worked there. Bayt-Al-Hikma was essentially the world's first research institute. It laid the foundation for systematic scientific inquiry and cross-cultural scholarship. It mainly served as a library, translation center, and academy. The Greek, Persian, and Sanskrit books were translated into Arabic, including the works of Aristotle, Plato, and Galen. The Mu'tazilite school of theology, supported by Al-Ma'mūn, encouraged science and philosophy. Famous scholars like Al-Khawarizmi and Al-Kindi studied and worked there, which led to the innovations of algebra and algorithmic calculations from there. The invention of astronomical tables and refinements in celestial measurement was finished from there. In medicine, the scholars, for the first time, experimented and tested models from there, creating the first systematic medical encyclopedias in Arabic. Consequently, Bayt-Al-Hikma became a hub of astronomy, science, mathematics, and medicine in this era. The second famous research center during the Medieval period was the Dar-Al-Hikma, founded in 1005 CE by the Fatimid Caliph Al Hakim Ibn Amr Allah in Cairo, Egypt. It contained one of the largest libraries of the medieval world, along with its function as a research institute. It became an inspired model for later madrasas and universities, enlightening a culture of open access and scholarly patronage, and influencing educational methods like lectures, public debates, libraries, and research grants. Science, philosophy, and astronomy were taught by salaried professors, in parallel with theology and Quranic exegesis, which functioned as a learning system where students learn all the subjects synthesized with the Qura'n. Quranic linguistics and *Tajwīd* were also taught here. Famous scholars like Ibn Al Haytham and Al Kirmani studied here. The synthesis of Neoplatonism and Quranic cosmology was from here, describing the universe as emanating from the Divine intellect. Furthermore, the use of logic (*'ilm al-mantiq*) was developed and completed from here. In essence, this dual focus on the Qura'n and scientific-philosophical thoughts created scholars who saw science as a path to understanding God's creation and strengthening faith, not a contradiction of faith. This system was active both in Bayt-Al-Hikma and Dar-Al-Hikma. In addition to these two, there were also other famous research centers developed in the Medieval Age. They include Al-Azhar University, one of the longest continuously operating universities

in the world, and the Al-Andalus research centers, active in Cordoba, Granada, and Toledo. Some other active observatories were the Damascus observatory in Syria, the Maragha observatory and Shamsiyyah observatory in Iran, the Ulugh Beg observatory in Samarkand, and the Taqi al Din's observatory in Istanbul. In the final analysis, the observatories and research centers played a crucial role in constructing knowledge harmonized with the Holy Qura'n. They helped bring about the rise of prominent scholars who strongly believed in their religion and spread an empowering message to society: that preventing the influence of secular thought on religion by denying science is not the right way. Instead, they made efforts to reconcile religion and science within a religious framework.

5.2 Knowledge, Discovery, and Revelation: The Quranic Roots of Medieval Islamic Scholarship

The most profound foundation of the Islamic Medieval legacy was the presence of its distinguished scholars and the true luminaries of the Golden Age. Through their radiant discoveries and intellectual contributions, they enriched not only the Islamic world but also the broader human civilization. These scholars explored and articulated the fundamental theories of nearly every discipline, shaping ideas that continue to influence the modern world. What set them apart was their constant effort to align every scientific revelation with the wisdom of the Qur'an, affirming that each marvel of creation is but a manifestation of the blessings of Allah, the Exalted. Unlike Western thought, which separated religion from the other sides of the universal life, Islam emphasized the model of *tawhīdīk* science so that universal balance and harmony can be holistically managed and shaped. The Islamic scholars in this period always tried and succeeded in it. There are several identities that contributed to the Islamic science and affirmed their belief, confirming the scientificity of the Qura'n. They looked at the values taught in the Qura'n from the scientific point of view, which are divinity, society, and nature. These names include Jabir Ibn Hayyan and Al Razi through their contributions in chemistry, Ibn Sina in medicine, Al Kindi in physics, Al Biruni in various fields of science, and Ibn Haytham in optics. This proves that Islamic scholars pioneered these sciences, while Western scholars emerged later in history. Among the Western scholars, Isaac Newton was in the same field as Ibn Haytham, Copernicus, and Galileo Galilei; Al Battani and Al Biruni were in the same field; and later Francis Bacon was in the same field as Ibn Sina and Al Haytham in the scientific methods. The chronology of time also proved the superiority of Islamic science, which is the basis for the development of scientific sciences in human civilization. Moreover, there were also many other names that glistened in the fields of philosophy, theology, and astronomy. They were Al Ghazali, Ibn Rushd, and Al Farabi for their valuable contributions in Islamic philosophy; Ibn Bajjah Al Andalusī, Al Qazwini, and Ibn Firnas in astronomy; and Ibn Khaldun, breaking the barriers in sociology and history. These luminaries were the powers of the medieval Islamic world, or surely of Islamic history, who invented new theories that bridged with Quranic insights. The succeeding part of this paper sheds light on some of these scholars and their remarkable achievements.

Firstly, Ibn Sina, known as Avicenna in Europe, was a Persian scholar who synthesized Quranic theology and Aristotelian logic. He was known for his work *Kitab-al-Shifa*, The Book of Healing, in which he explains logic, politics, and human psychology. In his famous book, *Al-Ishārat-wal-Tanbīhāt*, he argues in the theological aspect that everything contingent requires a cause. The chain of causes ends in one necessary existence, which the Arabs referred to as *Wājib-Al-Wujūd*. Then, he aligns this with the Quranic verse: *اللَّهُ خَالِقُ كُلِّ شَيْءٍ وَهُوَ عَلَىٰ كُلِّ شَيْءٍ وَكِيلٌ* "Allah is the creator of all things." Thus, his metaphysics was Qura'n-inspired rational theology, not detached philosophy.

In addition, another remarkable name among the scholars was Ibn Rushd, known as Averroes in Europe. He was an Andalusian philosopher that stated the reason as a Quranic obligation. He argues that philosophy is not foreign to Islam; instead, it is mandated by the Qura'n. He maintained that the study of philosophy is a Quranic command because the Qura'n urges reflection on creation. This, he wrote in his book *Faṣl-Al-Maqāl*: Since the Shariah calls upon us to reflect on beings, and reflection is nothing but the act of reasoning, then it is an obligation to study philosophy. This was his concept of philosophy. For him, philosophy was a rational Tafsīr of divine revelation, not opposition to it. Next up, Ibn Khaldun, another towering figure, was known as the founder of sociology and historical epistemology through his seminal work *Al-Muqaddimah*. He introduced concepts of cohesion, which was named '*Aṣabiyyah*', and the cyclical nature of civilization. In '*Aṣabiyyah*', he explains the importance of social unity, drawing upon his deep research in the Qura'n's verses in *Surah-Al-Hujurath*: "The believers are but brothers, so reckon between your brothers, and fear Allah, so that you may receive mercy." This verse can be termed as social capital, which appeared in the phrase "*Ikhwah*." So, these inspiring stories show us that the scholars always depended on the Qura'n for their discoveries. The Muslims were also deeply interested in anthropological and historical studies, as famous historians like Ibn Battuta, Ibn Hawqal, and Yaqut Al Hamavi formulated that their practice of geography by knowing and describing God's work is a religious duty.

Moreover, Imam Ghazali's philosophical statements emphasized spiritual purification and knowledge of God through both intellect and inner experience. His theory was that denying the science for preventing the Qura'n is not the right way. So, he always made efforts to discover theories connected with the Qura'n. Shoaib Ahmed Malik has clearly justified Al Ghazali's words in his book "Islam and Evolution". Furthermore, Jabir Ibn Hayyan, the father of chemistry, has advanced numerous theories related to liquid and water forms, like sublimation, distillation, and fertilization. Also, he had synthesized new acids like hydrochloric, sulfuric, and nitric acids, which were related mostly to water. Prominent Islamic Studies says that most of Jabir's contributions were related to water, which were discovered from the Quranic light of knowledge, from the Qura'n's verses that talk about liquids and their transformation. But there is no correct evidence clearing this statement; rather, the modern writers assert that he worked within an Islamic framework and harmonized with the Qura'n, and the correct verse-by-verse connection is not well defined everywhere. Thus, most of the Islamic research was made by the Quranic enlightenment and was revealed by the Quranic epistemology. Certainly, hundreds of names are again included in this list, who worked on reason as their main source of knowledge. Likewise, the Qura'n inspired a great knowledge construction in the Medieval period and built an intellectual legacy that empowered the Islamic environment for years, which still exists now and develops day by day.

5.3 Tafsīr Inspired Knowledge in the Medieval Period

During the Medieval era, Quranic Tafsīr played a profound role in shaping intellectual and spiritual thought. Numerous scholars and Sufi thinkers devoted themselves to interpreting the Divine text, uncovering layers of wisdom embedded within its verses. Because the Qura'n's meanings extend infinitely deep, countless Tafsīrs emerged each illuminating a single verse in remarkably diverse ways. These interpretations were not mere commentaries, but reasoned reflections grounded in the sayings of the Prophet(S) and enriched by his explanations, forming a vast and enduring tradition of knowledge. The early figures among the Tafsīr scholars were Imam Tabri, Imam Tawri and Imam Ibn Sulayman, whose interpretations mainly focused on the Hadith and the Prophetic deeds. Among them, Imam Tabri's Tafsīr had become a foundation for all the later Tafsīrs.

Later, in the late Medieval period, the Tafsīrs got classified into different sectors and the emergence of sectarian Tafsīrs became popular, like the Tafsīrs of *Sunnis*, *Mu'tazilites*, *Asha'ris*, and *Shia's*. In this period, the emergence of Sufi Tafsīrs also became notable, and the interpretations integrated on philosophy, logic, and *Kalam*. Different types of *_Mufasssīrīn_* and Tafsīrs rose up in this era. The prominent scholars were Imam Zamakhshari, whose Tafsīrs focused on the Sunni beliefs and he was among the first ones to apply *'ilm al Balaga*, the linguistics in the Tafsīr. Secondly, Imam Razi was also very famous, who introduced philosophical and scientific inquiry into the Quranic interpretations, discussing metaphysics, natural sciences, and logic in relation with Quranic verses. He was later criticized for his work *_Tafsīr-Al-Kabīr_*. The scholars in his age and the modern scholars defined it as a book of everything except Tafsīrs. Yet, it was still profoundly influential. Imam Al Qurtubi was another prominent scholar during the late Medieval age whose famous work *_Al Jāmi'a'li aḥkāmil Qura'n_* approached a legal Maliki Fiqh oriented Tafsīr. He systematically derived jurisprudential rulings from the Qura'n's verses. Likewise, there were thousands of Tafsīrs written in different aspects, which helped for knowledge acquisition, that it was taught in all schools and research centers. Ultimately, the Quranic interpretations played a crucial role in the Qura'n inspired knowledge construction in the Islamic golden age, which exactly led to the intellectual legacy of Islam.

5.3.1 Examples of Tafsīr-Inspired Knowledge and Discoveries

As we said, the rise of Tafsīr became so popular and helpful in the golden age of Islam, but in the history of Islam. The ancient and modern scholars depended on it for new innovations and discoveries, which makes the Holy Qura'n unique. Tafsīrs in different aspects and meanings facilitated the construction of new knowledge. The exegetes found out multiple wonders hidden in the Qura'n until they reasoned and revealed the secrets with the complete help of Allah, the all-knowing. A concise overview of some examples of Tafsīr-inspired knowledge and discoveries by the medieval scholars is below.

To begin with, a cosmic and scientific reflection emerged among the early Muslim scholars. Mainly, Imam Fakhr Din Al Razi has developed the cosmological interpretations. One of them is his explanation in the verse *اللَّهُ الَّذِي خَلَقَ سَبْعَ سَمَاوَاتٍ وَمِنَ الْأَرْضِ مِثْلَهُنَّ*. "It is Allah who has created seven heavens and the earth." He theorized that the "seven heavens" could refer to multiple layers of the universe, anticipating the idea of cosmic spheres or worlds. He always discussed physics using Quranic descriptions, linking Aristotelian and Ptolemaic cosmology. He advances this statement in his book, *Mafātiḥ-Al-Ghayb*. Secondly, one of the clear and deep statements of the Holy Qura'n is Allah's words in chapter 23, where he says:

ثُمَّ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعُضْغَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظَامًا فَكَسَوْنَا الْعِظَامَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ

"Then we made the sperm drop into a clinging clot, then we made the clot into a lump of flesh, then we made the lump into bones, and we clothed the bones with flesh, and then we brought it forth as another creation." Innovations of Imam Al-Zamakhshari and Al-Razi in this verse analyze it linguistically and biologically. Al-Razi compared this with the Greek medical theories, identifying the stages of human development in the womb exactly where the Qura'n states the terms *"nutfah"* for sperm, *"'alaqah"* depicting the clot, and *"mud'gah"* for flesh, as a scientific miracle reflecting the divine order. This became a foundation for later Islamic embryology and influenced medieval Muslim medicine. The modern Islamic science scholars have developed the terms into "zygote," "embryo," and "fetus," which are modern scientific terms.

Moreover, another revealed theory from the Quranic exegesis was in the verse: **اللَّهُ الَّذِي يُرْسِلُ الرِّيَّاحَ فَتُثِيرُ سَحَابًا فَيَبْسُطُهُ فِي السَّمَاءِ كَيْفَ يَشَاءُ وَيَجْعَلُهُ كِسْفًا فَتَرَى الْوَدْقَ يَخْرُجُ مِنْ خِلَالِهِ**. "Allah is He Who sends the winds, so they raise clouds and spread them along the sky as He wills, and then break them into fragments, until you see raindrops come forth from their midst!" Imam Qurtubi explained this as a complete hydrological cycle, which states the evaporation, condensation, and rainfall process long before modern meteorology. He noted that this verse reveals Allah's control of physical laws and that "the winds serve as agents between water and earth." His Tafsīr inspired the later Muslim geographers and environmentalists. Lastly, an example of natural science is found in *Surah Al-Waqiah*, verses 75 and 76: "Then I swear by the setting of stars, and indeed, it is an oath—if you could know—great." The scientific focus of the verse is the oath of Allah, the exalted, on the cycle of the stars. The central word in unraveling natural science in the verse is **مَوَاقِعَ النُّجُومِ**, which was interpreted by the earlier and contemporary exegetes. Qatadah and Ibn Abi Rabah stated that *Mawāqī' al-Nujūm* is the place of the passage of the stars. Ibn Kathir referred to it as a path of stars that becomes a place of rising and shining. Al Maraghi explained it as the place where stars fall and set in the sky. In total, we can exactly observe the wonders of the Holy Qura'n by its great exegesis. Development of *I'jāz al Qur'an*, which means the Qura'n's miracles, was rapid in the Medieval era, and it was strengthened by the arrival of each and every Tafsīr to the world. Beyond all these, we can see many examples of Qura'n- and Tafsīr-inspired knowledge construction that took place in the Medieval period, which came to be the main turning point of the Islamic intellectual legacy.

Conclusion

It is an essential need for Islamic civilization to emphasize the concept of the Quranic Epistemology and its knowledge acquisition in the Islamic Classical age. The Muslim scholars truly understood the Quranic Epistemology concepts and foundations and worked on the revelation and reason, strengthening the intellectual legacy of Islam by the outstanding innovations of the scholars throughout the years. Decades before the Western scholars, the Islamic scholars had built the base of every field, including science, philosophy, mathematics, logic and theology. The Quranic interpretations rose up and created a perfect harmony in the Quranic education, unveiling different explanations and theories from different scholars. In essence, as we reflect upon these insights, the Medieval period stands as far more than a mere Golden Age for Islam and Muslims. It was an era that shaped the very foundations of knowledge and intellectual pursuit. The modern world must draw lessons from those remarkable scholars and strive to reclaim that enduring legacy within the realms of technology and artificial intelligence. In our time, it has become essential to engage more deeply with the Qur'an, exploring its light of wisdom and knowledge. Through such reflection and study, may new discoveries emerge from within us, reviving the true spirit of learning and restoring the legacy for a brighter tomorrow.