The Islamic Glorious Epoch through the March of History

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Abstract

This study discusses the key elements that developed Islam's "Golden Age" and their contributions. Beginning with the reign of Abbasid Caliph Harun al-Rashid (c. 786–809) and concluding with the Abbasid Caliphate's fall with the Mongol invasions and the sack of Baghdad in 1258 CE, this period of Islamic growth lasted nearly five centuries. On the other hand, some scholars define Islam's Golden Age more broadly and across a longer period of time.

All concur, however, that the Golden Age represents a truly remarkable period in human history that spans several centuries and includes the exceptional accomplishments of Islamic scholars, humanists, and scientists across a wide range of disciplines, including finance, mathematics, astronomy, medicine, and Islamic and European monetary systems. The main contributions to human progress made by the Abbasid, Fatimid, and Umayyad dynasties in Baghdad, Cairo, and Andalusia are briefly listed here. It also provides several examples of the lasting contributions made by the Islamic Golden Age from antiquity to the present, many of which laid the foundation for a prosperous future for both Islamic societies and the world at large.

Key Words: Golden Age, Islamic civilisation, Muslim Dynasties, Baghdad, Muslim Art.

Introduction

Islam's Glorious Age, from 786 CE to 1258 CE, has been a source of pride among Muslims worldwide. Many scholars believe that Muslims are awaiting the rebirth of this period and the resurgence of Islam as one of the world's renewed cultural and religious influences. This collective aspiration transcends linguistic, cultural, and ethnic differences that divide Muslims into different ethnic and national camps. The realisation of this possibility depends on the ability of nations, to resolve political and military tensions that threaten decades of peaceful development.

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Many cultures and societies contributed to the flowering of Islam's Golden Age, including the Persians, Berbers, Fatimid, and Spanish Muslim Dynasties. The Islamic empires of the period included Jews, Christians, Hindus, and Chinese who made significant contributions to Islamic socio-cultural-scientific achievements. Greek and Roman contributions were made possible through the translation of Greek, Roman, Aramaic, and other texts in Arabic, which laid the foundation for much of the intellectual recovery of Europe following the end of its extended Dark Ages.

The Glorious Age represented a true melting pot for the world's many and varied cultures, each contributing their ideas, cultures, systems of thought, and philosophies to what eventually would become Islam's Golden Age. The uniqueness of this epoch is found in its cosmopolitan nature and its diversified sources, culminating in huge advances in all areas of life under the auspices of many enlightened politicians and visionary intellectuals.

The term "Islamic Golden Age" was coined by the 19th-century "Orientalist" movement, which influenced Western academicians studying Middle Eastern, Asian, and North African societies. These academicians brought with them the assumptions and attitudes those European colonisers promoted, leading to a lens through which Westerners viewed Islamic phenomena. This perspective, particularly among American intellectuals, dominated Western scholarship through arrogance and intolerance. The Islamic Golden Age should be seen as a process, spanning at least seven and a half centuries, from 750 CE to 1258 CE. It coincides with the period of the European Dark Ages (500 CE to 1000 CE) and the European Renaissance (13th to 15th Century) when Europe regained its intellectual and cultural strength.[1]

Baghdad: Cradle of Islamic Culture and Civilisation

The Abbasid Dynasty built Baghdad, the capital of modern-day Iraq, to replace Damascus as the empire's capital. The city was strategically located between Asia and Europe, making it a prime spot on overland trade routes. The central location and lively trade culture attracted many people, including scholars, to live within its borders. The city formed two vast semi-circles on the right and left banks of the Tigris, twelve miles in diameter. The population of Baghdad and its suburbs amounted to over two million during its prosperity. Abbasid Caliphs Harun al-Rashid and his son al-Ma'mun established a House of Wisdom in Baghdad, a dedicated space for scholarship. They encouraged a translation movement, a formal translation of scholarly works from Greek into Arabic.

The Abbasids aimed to have philosophy, science, and medicine texts translated, as well as Syrian Christians translating Syriac texts into Arabic. The Abbasids were interested in a massive translation undertaking due to their desire for a comprehensive library of knowledge and the Holy Quran's emphasis on learning as a holy activity. They also had a practical thirst for medical knowledge, as the dynasty faced a demand for skilled doctors. The Abbasid dynasty's improvements on printing technology allowed them to spread written knowledge quickly. During the Golden Age of Islam,

Arab and Persian scholars contributed to the preservation of Greek and other existing knowledge about philosophy, astronomy, medicine, and other disciplines. Baghdad itself was the monumental architectural masterpiece founded, renovated and decorated by the Abassides. Several palaces, mosques, militarily barracks, gardens, educational institutions, libraries, and other public places had been erected and patronised.[2]

Muslim World in the Phase of Golden Age

The Islamic Golden Age was shaped by three main dynasties: the Abbasids in Baghdad (750 CE-1258 CE), the Fatimids in Cairo (909 CE-1171 CE), and the Umayyads in Cordoba (929 CE-1031 CE). During the Rashideen Caliphs' rule, Islam expanded out of Arabia to North Africa, Central Asia, and the Iberian Peninsula in Southern Europe. Muslims controlled Syria, Persia, Jerusalem, and Alexandria, eventually conquering the Spanish portion of the Iberian Peninsula in 711 CE. The Umayyad dynasty of Damascus ended by 750 CE, but Muslims continued their goal of reaching China a year later.[3] During this time, the Muslims brought together wise political leadership, a powerful army, peace and stability, and a diversified intellectual and economic life. However, military confrontations regained many of the Ummayads-held territories due to accusations of extreme living, sectarian policies, corruption, impiety, and discrimination against non-Arabs. Opposition groups rallied around the family descendants of Hazrat Abbas, the paternal uncle of the Holy Prophet (SAW) leading to the establishment of a new Caliphate.[4]

The Abbasid Caliphate, based on the Umayyad military, cultural, and administrative heritage, developed into a powerful and stable military power. The House of Wisdom, *Bait ul Hikmah* a combination of library, scriptorium, storehouse of knowledge, translation centre, and educational institution, marked the beginning of the Golden Age.[5] The House of Wisdom, inaugurated in Baghdad, served as a model for Islamic territories, with major cities like Damascus, Baghdad, Cairo, Bejaia, Fez, Samarkand, Bukhara, Córdova, and Granada becoming intellectual centres. The Abbasids emphasised the East and Central Asia regions of present-day Uzbekistan, Turkmenistan, Tajikistan, and Kazakhstan, building on the legacy of the Umayyads and bringing new blood from Persia. To guarantee the complete allegiance of the then-marginalised ethnic Muslim groups known as "Mawali" to the Ummah's life, the Abbasids restored justice to these people to some extent. Representing the kind of life that people in Baghdad led, the distinguished author Jahidh, Jahiz (d. 869) wrote:

When we see the people of Sijistan, of the Jazira, of Yemen, the Maghreb and Uman, the Azraqi, the Najdi, the Ibadi and the Sufri (four Kharijite sects), *mawla* and Arab, Persian and nomad, slaves and women, weavers and peasants, despite their various origins and their different homelands all fighting on the same side, we understand that it is religion which creates this unity between them and reconciles their conflicts.[6]

Von Grunbaum argues that the universality of the spiritual and political structure in the Roman Empire was censured by the idea of 'the state' and 'citizenship to Rome'. In the case of the Abbasids, religion brought people together in harmony. They acknowledged Islamic law and based their rule on religious principles, allowing for the development of diverse schools of thought. During Abbasid rule, the development of Sharia did not centralise the exercise of law and administration. Instead, they developed a new conception of law and state based on the prophetic tradition, unified the bases of law, and promoted commerce, industry, arts, and science. This openness and tolerance fostered a level of civilisation and knowledge considered a marvel in Europe.[7]

The Abbasids' temporal power declined due to the introduction of Berbers, Slavs, and Turkish mercenary forces into their army by Caliph Muatassim Billah. This cultural and linguistic diversity weakened imperial unity, leading to the ceding of authority over Andalusia and the Maghreb, the creation of independent states, and the decline of the political power of the Abbasid caliphs.[8]

The Fatimid Dynasty, a Shia state, claimed kinship to the Holy Prophet's daughter, Hazrat Fatima, and professed Shia beliefs. They initially formed among Berbers in east Algeria. In 909 CE, they defeated the Aghlabides and established Mahdia as their capital. They conquered Egypt multiple times but eventually established Cairo as their capital in 969 CE. The Fatimid library in Cairo became the most important in the Muslim world.[9]

In 970 CE, the Fatimids ruled Mekkah and Madina, conquering Syria. They extended trade networks across the Mediterranean and Indian Ocean, maintained diplomatic ties with distant countries, and had fruitful economic policies. They developed interest in specialised art, fostered freedom of expression, and rewarded scholars. However, the Fatimid caliphate declined in the 12th century, with Salah ad-Din founding the Ayyubid dynasty and reincorporating Fatimid territories.[10]

The Umayyad Caliphate of al-Andalus (929 CE-1031 CE) was the third state in the Golden Age, characterised by the expansion of trade, culture, and architecture. Abd ar-Rahman III proclaimed himself caliph of Cordoba in 929 CE, bringing Christian kingdoms under control and halting Fatimid advance. Trade and cultural relations with the East remained active, and diplomatic relations with Byzantium showed the power and prestige of the Umayyad Caliphate. The weakening of Eastern influences led to a new civilisation, resulting in political stability and increased prosperity. The caliphate crumbled in 1031 into independent community kingdoms.[11]

Circumstances Leading to the Rise of Islamic Glorious Era

The Islamic Golden Age was influenced by various political, economic, and scientific factors, leading to wealth and intellectual fervour. The Islamic state has been governed using legal frameworks since the Holy Prophet's (SAW) time, with a Constitution drafted by the Holy Prophet Muhammad (SAW) in Madina defining rights and

responsibilities for diverse ethnic and religious communities. This tradition was reinforced in the early Islamic state of the Rashideen Caliphate, where the leader of Muslims was chosen from the majority. Despite the monarchy's rule, Islamic political philosophy continued to take shape. The system of state and governing was the basis of all subsequent Islamic political systems, with the first conditions for ruler success being peace and justice. This vision of justice and equity dominated political life during the golden age and contributed to subsequent creative works.[12]

Islamic law governed the economic system during this period, with governments encouraging agricultural trade and manufacturers. Peasants tilled the land, while manufacturers and merchants supported a thriving urban economy. The Umayyad and Abbasid empires created a zone of trade exchange and communications, stimulating both the countryside and cities with predominantly Islamic populations. Travel and communication encouraged experimentation with agricultural methods, leading to the rapid growth of cities in Islamic countries.[13]

These cities had flourishing markets supporting artisans, craftsmen, and merchants, and were important centers of industrial production, particularly in textiles, pottery, glassware, leather, iron, and steel. As camel transport became more common, major Islamic cities built caravanserais-ins for caravan merchants. Paper manufacturing emerged in Islamic cities during the Abbasid era, with Chinese craftsmen producing paper since the first century CE. This technology allowed for the keeping of administrative and commercial records and the dissemination of books and treatises in larger quantities.[14]

Islamic banks during the Abbasid period conducted business on a larger scale and provided a more extensive range of services than their predecessors. They made loans to entrepreneurs, served as brokers for investments, and exchanged in foreign currency exchanges. They established multiple branches that honored letters of credit known as "sakk" and loaned money to the non-wealthy, such as local merchants and tradespersons. Interest-free loans were made to the poor and near-poor, in line with Islamic teachings regarding usury.[15]

Trade also benefitted from new techniques of business organisation, with Islamic law providing security for entrepreneurs by explicitly recognizing certain forms of business organisation. Imported crops increased the supply of food and enriched the diet of al-Andalus, enabling merchants and manufacturers to conduct thriving businesses in cities like Cordova, Toledo, and Seville.[16]

Arabic, the language of the Holy Qur'an and the religious language of all Muslims, is written in an abjad script and is the only surviving member of the Ancient North Arabian dialect group. With the spread of Islam, Arabic became a prominent language of scholarship and religious devotion, with research in various fields such as medicine, optics, astronomy, alchemy, geography, botany, mathematics, philosophy, history, ethics, and literature. Education in Arabic has been a point of pride for Muslims since the early state of Madina, with rulers building great libraries and learning centers.

Formal institutions dedicated to education were established by the Caliphs, and Sultans, and through personal initiatives of rich women and men.[17]

The Legacy

Arab science was born and developed in the same context as philosophy, but did not suffer the same resistance. The scientific movement launched by the last Umayyad rulers, then the Abbasids, spread throughout Islamic countries, enriched and expanded these works with new discoveries. Muslims collected substantial legacies in the countries where Islam came to be embraced, not only translating these works but also enriching them with new discoveries.[18]

In the field of Mathematics and Astronomy, Greek scientists such as Euclid, Archimedes, and Apollonius were incorporated with Indian sources such as Aryabhata. These intellectual encounters led to important developments, such as the decimal place-value system, the first systematised study of algebra, and many other advances in the study of geometry and trigonometry. In 770, the Abbasids adopted the decimal system and created 'Arab' numbers, using the zero (sifr: empty) which greatly facilitated operations compared to the Roman numerals.[19]

The great mathematician Al-Khwarizmi, known as the "father of algebra," published his famous treaty on Indian calculation in 825 CE, which made him the "father of algebra." His work on geometry, specifically on the theory of proportions, was widely read by medieval Arabic astronomers.[20]

Muslim scholars also renovated and extended astronomy, with new developments mostly taking place in the Middle East, Central Asia, Al-Andalus, North Africa, and later in the Far East and India. Political leaders supported actively scientific efforts, with Caliph al Ma'mun building an observatory within the framework of the "House of Wisdom" and later having a significant influence on Byzantine, European, and Chinese astronomy. Trigonometry was initially considered a branch of Astronomy but later founded as an independent science.[21]

In the field of Alchemy, Muslims were motivated by the idea of transforming bodies by an ideal agent, the elixir or the 'philosopher's stone' to make gold.

Jabir ibn Hayyan, a great master of this field, sought to study the composition and transformation of minerals, developing numerous sound facts and processes that formed the basic building blocks for modern chemistry.[22]

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Abul Wafa Buzjani, a mathematician, made important innovations in spherical trigonometry and the introduction of negative numbers. Omar al-Khayyam, a poet and Sufi mystic, wrote the influential Treatise on Demonstration of Problems of Algebra, which laid down the principles of Islamic Mathematics and was eventually transmitted to Europe.[24]

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Islamic astronomy, optics, and chemistry were among the fields of study that Muslims excelled in during the Golden Age. Political leaders like Caliph al Ma'mun ur Rashid supported scientific efforts, such as building an observatory and influencing Byzantine, European, and Chinese astronomy. Astronomers like Al Ferghani, Al Battani, and Nur addin al Bitruji contributed to the development of astronomy, while trigonometry was initially considered a branch of astronomy but later founded as an independent science.[25]

In optics, Ibn al-Haitham authored a treatise on reflection and refraction, while Badi'al-Zaman al Jazari wrote The Book of Knowledge of Ingenious Mechanical Devices. Alchemy, or the study of the elixir, was a major focus during the Islamic Golden Age, with Jabir ibn Hayyan being a master of this field.

Islamic medicine, a branch of science that Muslims excelled in, was part of the curricula of medical schools worldwide until about a century ago. Scholars like Ibn Qayyim al-Jawziyyah and al-Asfahani discussed 'Prophetic Medicine', a form of prevention that protects both bodies and souls. The Abbasids were particularly interested in supporting medical research, with hospitals established in Cairo, Makkah, and Madina. Medical treatment was free, supported by waqf endowments and government patronage.[26]

The Islamic Golden Age was a period of great achievements in various fields of Humanities, including religious sciences, philosophy, literature, history, geography, and linguistics. Ophthalmology was the most successful branch of medical research, with the works of Ibn Al-Haitham remaining an authority until early modern times. Al-Razi, one of the greatest Islamic physicians, wrote Kitab Al-Mansuri, a treatise on Greek medicine and published on smallpox and measles.[27] Ibn Sina, known as "the prince of physicians," synthesised Islamic medicine, creating a holistic system of medicine that combined physical and psychological factors, drugs, and diet in treating patients. Other successful examples include Ibn Al-Nafis, a 13th-century Arab physician, who described pulmonary circulation, and Surgeon Al-Zahrawi, who wrote the Tasrif, which became the leading medical text in European universities during the later Middle Age.[28]

Philosophy in the Islamic Golden Age was elaborated as a systematic investigation of problems connected with society, life, nature, and sciences in a global religious vision. However, the Muslim community was involved in controversies that occasionally struck at the very essence of the religion. Two main currents of philosophy in the Islamic Golden Age were Kalam, which mainly dealt with Islamic theological questions, and Falsafa, founded on interpretations of Aristotelianism and Neoplatonism in Arabic.[29]

Ash'arism emerged as a response to Mutazila, which was considered heresy and led to its decline. Abu al-Hasan al-Ash'ari urged the use of reason in understanding the Qur'an but denied the possibility of deducing moral truths by reasoning. This was opposed by the school of Maturidi, which taught that certain moral truths may be found by the use of reason without the aid of revelation. The Ash'arism schools are summarised under Ilm al-Kalam, or "science of discourse," as opposed to mystical schools which deny that any theological truth may be discovered using discourse or reason.[30]

Al Kindi, also known as Alkindus, was an extraordinary philosopher who mastered the knowledge of his time and emphasised the righteousness and unity of God. He defended prophecy while seeking to bring it into harmony with reason. Al Farabi, another famous name, contributed significantly to other fields of knowledge, particularly philosophy, logic, and sociology. He separated philosophy from Theology in the Middle Ages and believed in a Supreme Being who created the world through the exercise of balanced intelligence.[31]

Ibn Sina, known as Avicenna, studied medicine and later logic and metaphysics. His two most important works are The Book of Healing and The Canon of Medicine, which cover various subjects and are considered the most famous single book in the history of medicine.[32]

Ibn Rushd, a prominent intellectual from Cordova, Spain, was known for his defence of Aristotelian philosophy. He argued that there was no conflict between religion and philosophy, but rather that they were different ways of reaching the same truth. Ibn Rushd identified two kinds of knowledge of truth: knowledge of truth from religion (for the unlettered multitude) and knowledge of truth from philosophy (the real truth), reserved for an elite few.[33]

History, a developed discipline in Islamic civilisation, was less influenced by foreign sciences and appeared as an auxiliary between religious sciences and true history. It informed Muslims on the life of the Holy Prophet (SAW) and his companions, as well as the history of the conquest of the lands. Other influential Muslim scholars during the Golden Age of Islam included Ibn Ishaq, Al-Wakidi, Kalbi Mohammed, Hisham, Muhammad ibn Jarir al-Tabari, and Rashid al-Din Hamadani.[34]

History made a step towards universalism with Muhammad ibn Jarir al-Tabari's commentaries of the Qur'an and his universal history. Tabari aimed to be as neutral as possible by collecting all traditions and exposing them uncritically. Rashid al-Din

Hamadani composed a more truly universal history, Jami' al-tawarikh, which covered not only Islamic societies but also data on the popes, and emperors of Europe, Mongolia, and China.[35]

Ibn Khaldun, a prominent figure in Islamic history, played a significant role in shaping the development of the discipline. His work, Muqaddimah, is considered the foundation of sociology and historical criticism. The expansion of Islamic territories allowed for travel from the Atlantic to the Pacific oceans, enriching Islamic geography beyond what was known to the ancient Egyptians, Sassanids, Greeks, Romans, and Medieval Latin authors.[36]

Muslim geographers like al-Idrisi, Yaqut al-Hamawi, Abu Rayhan Biruni, Ibn Battuta, and Ibn Khaldun contributed to the development of world maps and methods of pin-pointing locations. The Golden Age of Islam saw the rise of Islamic arts, which included art created specifically for worship and religious learning spaces, as well as art and architecture produced in the lands ruled by Muslims, produced for Muslim patrons, or created by Muslim artists.[37]

The Umayyads of Damascus instigated and sponsored the earliest Islamic artistic works, but little is known about many features of those times. The Dome of the Rock in Jerusalem, completed under the patronage of caliph Abd al-Malik, is one of the first major Umayyad architectural undertakings. Other renowned religious sites include the Holy Prophet's Mosque and former house in Madina and the great mosque of Damascus.[38]

With the change of dynasty and the transfer of the Caliphate's capital to Baghdad, imperial art flourished in the new cities of Baghdad, Samarra, and al Fustat. However, most of the artistic achievements in Baghdad were destroyed due to soft materials like mud brick, flooding of the Tigris River, and political unrest. Some remnants of the Abbasid's buildings and amasing artworks of Baghdad survived, such as the Baghdad Gate, which features ornamental brickwork and defensive work.[39]

The Abbasid era in Islamic history is characterised by its defensive work, carved limestone capitals, and the development of new techniques for pottery, glass, metalwork, rock-crystal, ivory, and wood carving. The Fatimid era saw the creation of tiraz fabrics in the name of the caliph in the Egyptian region, and the decorations of al-Azhar University and Cairo attest to their architectural and artistic creativity. The Umayyad caliphate of Cordova became the greatest intellectual centre of Europe, with celebrated libraries and schools. Art patronage was a sign of kingship and authority, with Hispano-Umayyad art reaching its apogee during the reign of Abd al-Rahman III and his son al-Hakam II.

The Almoravid dynasty in North Africa conquered Morocco and founded Marrakesh as its capital city in 1062 CE. They also entered al-Andalus and controlled important ports and trans-Saharan trade. The mosques of Algiers, Tlemcen, and Qarawiyin in Fez are important architectural examples from this period. Almohad arts in Marrakesh and Sevilla are subject to admiration today.[40]

The Decay and Dismemberment

The Islamic Golden Age was marked by a slow decline due to external invasions, including the Crusades in the 11th and 12th centuries CE, and the Mongol Empire in the 13th century CE. The Mongol Empire conquered most of the Eurasian land mass, including China and much of the old Islamic caliphate. The destruction of Baghdad and the House of Wisdom by Hulagu Khan in 1258 CE marked the end of the Islamic Golden Age. The Christian Reconquista in the Iberian Peninsula in 1482 CE marked the end of the Islamic Golden Age. The decline is attributed to political mismanagement, stifling of independent reasoning, and economic and political factors. Scientific activity continued to flourish until the 16th century CE.[41]

Conclusion

The Islamic Golden Age, which began in the eighth century CE, has had a significant impact on Islamic communities and the world. It was the Islamic Empire's Golden Age, incorporating intellectuals from the ancient world, including Greeks, Romans, and other Western thinkers. The empire also drew on the intellectual knowledge and skill bases of non-Muslims living in countries with distinct religious and cultural histories, such as Jews, Christians, Hindus, and Sino-Japanese ancestors. The Islamic Golden Age was revolutionary in various sectors of human interaction, including arts, humanities, sciences, architecture, jurisprudence, philosophy, mathematics, and medicine.

European contributions to human intellectual development were limited during the Renaissance period, which flourished in philosophy, arts, sciences, and new political systems. During the European Dark Ages, non-Western and non-Christian history was discarded and destroyed, leading to the destruction of libraries and scriptoria. Muslims preserved, codified, and distributed much of the great wisdom and scientific accomplishments of the past in Arabic, building upon and extending knowledge within both Islamic and non-Islamic societies.

The legacy of Islam's Golden Age continues to be with us today, but with the need for peace, stability, and cooperation among various factions within Islam, a second Islamic Golden Age may not be realised anytime soon.

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[41] See Ahmad bin Abi Yaqub ibn Wazeh Yaqubi, Trans. Saqib Akbar, *Tarikh e Yaqubi* (Islamabad: Al Basirah Publications, 2010).