HELLENISM IN ISLAM:
The Influence of Greek in Islamic Scientific Tradition

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Abstract
The early Muslim society took much of the scientific treasures from other civilizations, especially from ancient Greek. One of the scientific traditions taken from Greek is Hellenism. Using a historical approach, this article tries to assess the contiguity of Islam with the Hellenism. There are three points will be discussed: When has Islam met to the Hellenism in first time? What are the factors that support the scientific contact between both of the civilizations? To what extent Hellenism influenced the development of scientific tradition in early Muslim community? Our study shows that the Muslims have known the Hellenistic tradition since the 7th century in Ummayad era, not the 8th century as some scholars claim. Second, there are three factors underlying early Muslim studied Hellenism (1) Support from Qur’anic teachings, (2) The need to argue with both of other Muslim groups and Non-Muslims community, (3) The need of the Caliphs to legitimize their power. Third, when Muslims have known the Hellenism, they did not only adopt the Hellenism ideas, but also provide reviews, critical notes, and further more developed its own scientific tradition combined with the Qur’anic teachings.
Hellenism in Islam


Keywords: Hellenism, History of Arab-Islam, Islamic Philosophy

Introduction

Islam was revealed when the Arabs were surrounded by highly culturized and civilized nations, such as the Roman, Greek, Persia, and India. On the other hand, the majority of pre-Islamic Arabs were the community with low level of culture. This condition is due to the harsh land of Arabic terrains. Inayatullah said that the land of Arabia is mainly a sandy plain, which is partly steppe-land and partly desert. Except in the oases which are few and far between, the land is bare and monotonous, unfit for cultivation and unable to support settled communities.¹

Due to this desert factor, the majority of the Arabs live as nomadic community. According to Inayatullah, they stood at a low level of culture and were innocent of those arts and sciences which are associated in our minds with civilized life.”

As a newborn society, the Islam-Arabs would like to have high culture and civilization, this urges them to learn other more modern cultures and civilizations. In this sense, cultural and intellectual contact between the Islam-Arabs community and the surrounding nations, such as the Egyptian, Syrian, Persian, Indians, Greeks, and Romans happens. This contact is an impact of military expedition of Islamic Caliphs to those areas, since the era of Khulafaur Rasyidin (the four khalifah after Prophet Muhammad) to Abbasian Dynasty.

This effort has been done by the Islamic community since the classical era, especially during the Umayyads and Abbasian Dynasties. As many scholars have studied, in addition to directly learn the culture of other nations, the Islamic scholars also interpreted the non-Muslim literatures into Arabic language. This condition attained its golden era by the establishment of translation institutions such as, Khizanah al-Hikmah during the reign of the Khalifah Harun al-Rasyid and Bayt al-Hikmah during the reign of the Khalifah al-Makmun. These all happened during the golden age of the Abbasian Dynasty.

The transmission of non-Islamic science done by the Islamic society during the classical era was dominated by Hellenistic philosophy. Regardless, Indian and Persian philosophies also existed. However, the Hellenistic philosophy is the most prevailing influence in the development of Islamic civilization. As Hitti describes, Hellenism became the most vital of all foreign influences in Arab life.

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2 Ibid.
4 Ibid., p. 297-316.
5 Ibid., p. 309.
The heritage of the Greek philosophy and science which translated into the Arabic language is not only the literature of ancient Greek but also the literature following those ancient literatures which commonly known as Hellenistic literature, referring to the literature post the death of the Great Alexander, a Roman ruler, who ruled the Hellenistic areas. The Hellenistic heritage transferred into Islamic civilization are both Hellenistic philosophy and Hellenistic science, both of which in this article is referred as Hellenism.

Thus, it becomes interesting to study the Islamic early contact with foreign civilization and science. However the authors would like to limit their discussion on Islamic contact with Greek’s philosophy and science or Hellenism. Through historical approach, this article will discuss several problems related to when exactly Islam has contact with the Hellenistic scientific tradition, what factors support facilitating this cultural and intellectualism contact between these two civilizations, and to what extent the Greek philosophy and knowledge influences to the Islamic philosophy.

Theories about the Islamic Contact with Hellenism

According to Nurcholish Madjid, the term “Hellenism” was first introduced by the German historian, J.G. Droysen. Droysen used the term “Hellenism” to refer to a transition period between ancient Greek to Christian world. In contrary with Droysen, several historians such as, Bernard Lewis and Philip K. Hitti, used the term “Hellenism” to refer to adoption of the Greek culture, both ancient Greek and the Greek period after the death of the Great Alexander up to the time when the Romans ruled the areas that were previously ruled by the Great Alexander. The Hellenism civilization can be differentiated into Hellenistic civilization, which derived from the word “Hellene” which means Greek. Hellenist culture refers to the ancient Greek culture from the 776 BC to the time of the death of the Great Alexander in 323 BC. Whereas, the Hellenistic
culture is the Greek culture post the death of the Great Alexander up to the time when the Romans ruled the Hellenistic areas.  

In regard to Islamic contact with Hellenism, there are two main theories. The first theory is proposed by W. Montgomery Watt. He describes that the main contact between Islam and Hellenism happened during the Abbasian Dynasty around mid-8th century. This is what he called as, “The First Wave of Hellenism”. Watt describes, the phrase the first wave of Hellenism used as the title, describes this first period of enthusiasm for the study of the Greek tradition, and also indicates that it was limited in certain respect. Even, for Watt, the Abbasian Dynasty in this 8th dynasty, the Islamic intellectual immersion with Hellenism is yet comprehensive, it was limited for the argument methods needs, either arguments among Muslim groups or debate with non-Muslims community. 

The progress of Islamic philosophy happened during The Second Wave of Hellenism around the 10th-11th centuries. Watt referred this era as “The Flowering of Philosophy”—the blossom season for the dialectic of Islamic philosophy and Hellenism. 

One of the opposers with Watt theory is Majid Fakhry, as written in his latest book, A History of Islamic Philosophy. For Majid Fakhry, the
contact between Islam and Hellenism has been happening since the Mu‘awiyan Dynasty during the 7th century. The fact shows that, groups of Muslim during the 7th century has known the Hellenism heritage. Even for practical needs such as, government administration, finance, military, and health. The Greek knowledge heritage has been absorbed during this dynasty. Majid Fakhry acknowledges that during this Mu‘awiyan dynasty, the contact between Muslims intellectual and Hellenism is yet perfect, however, it doesn’t mean this contact is meaningless. Fakhry describes that Scholastic theology therefore gave the Muslims, as it had (given the Christians of Egypt and Syria centuries earlier, the incentive to pursue the study of Greek philosophy. Not much progress was made in that direction during the Umayyad period (661-750). The Umayyad khalifah, especially during the first few decades of their rule, were concerned primarily with the consolidation of their political power and the solution of the numerous economic and administrative problems which governing a vast empire raised. However, souls thirsting after knowledge were not altogether wanting even during this period. We might mention, as a striking instance, the Umayyad prince Khalid b. Yazid (d. 704), who appears to have sought consolation in alchemy and astrology for his disappointed claims to the khalifah. According to our most ancient sources, Khalid provided for the first translations of scientific works (medical, astrological, and alchemical) into Arabic.11

The Khalid prince is considered to have contributed in introducing philosophy to Islam-Arabs. Abstract philosophy was further popularized through the personal idiosyncrasies of such men as the Umayyad prince Khalid b. Yazid.12 This argument is also supported by Philip K. Hitty. Kitty even called prince Khalid as the philosopher of the Marwanids…the first in Islam to have translations made from Greeks and Coptic

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12 Ibid., p. xxii
books on alchemy, medicine and astrology.\textsuperscript{13}

The Greek philosophy which come into contact with the Islamic philosophy is acknowledged by many as to have encouraged the development of philosophy in Islam. Nevertheless, Oliver Leaman (l. 1950 M), an orientalist from the University of Kentucky, USA, argued that it is one big fallacy to consider Islamic philosophy rooted from the translation of those Greek texts.\textsuperscript{14} Before the Greek philosophy and logic are known, there has been a more rational philosophical thinking running through the Islamic scientific tradition, those of the theology and legal studies. Even, rational thinking of these legal and theology have become the basis of the acceptance and development of Greek logic and philosophy in Islam, and not the other way around. A. Khudori Sholeh supports this Oliver Leaman theory. He is described Islamic philosophy is not based on the Greek philosophy which comes into contact with Islamic scientific tradition through translation process, rather it is developed through the roots of Islamic heritage itself when the needs for that arise. In reverse to the Greek philosophy, Islamic rational thinking which has been existed and settled before has given the way for the acceptance of the Greek philosophy into the Islamic intellectual tradition.\textsuperscript{15}

In contrast with Oliver Leaman, the majority of the scholars believe that Islamic philosophy only grow after the interaction with Greek science and philosophy. This happens after the Arab-Muslim community came into contact with the non-Muslim communities, especially the Nestorian Christian and Jewish in Syria, Egypt, Antioch and the Majusi community in Persia. These areas have been experiencing Hellenization for centuries—establishment of thoughts and Greek culture including

\textsuperscript{13} Philip K. Hitty, \textit{History of Arab…}, p. 255.


\textsuperscript{15} A. Khudori Soleh, “Mencermati Sejarah Perkembangan Filsafat Islam” \textit{Tsaqafah}, Vol. 10, No. 1, May 2014, p. 82-83.
its philosophy. Majid Fakhry, for instance, acknowledges that since the early time of Islam, original knowledge among the Muslim community has been developed, especially the linguistics, *tafsir* and *fikih*. These three types of knowledge branch are needed by the early Islamic community to understand the Qur’an and the *Sunnah* of the Prophet.\(^\text{16}\)

Nevertheless, these disciplines are not sufficient to answer the arising problems and the thirst for knowledge of the advance period of Islam. Especially the need of the Islamic scholars to meet the intellectual challenges from the non-Muslim groups. Within such situation, according to Fakhry, the influence of Greek science and philosophy plays its role in the development of knowledge and science in Islam. But such a development required the challenge of foreign ideas and a release from the shackles of dogma. This is precisely the role played by the of Greek ideas and the Greek spirit of intellectual curiosity, which generated a bipolar reaction of the utmost importance for the understanding of Islam.\(^\text{17}\)

This argument is also supported by Nurcholish Madjid. When discussing about the Islamic classical scientific, Madjid describes that the science of reading is closely related to logical science. This science is an integrated part of a philosophy as a whole, has been started to be known among the Arab-Muslims after they conquered and interact with the Greek civilizations and Greek philosophies background. This argumentation by Madjid is based on the historical fact that almost all the targeted liberation areas of the Muslims have been previously occupied by the Hellenization.\(^\text{18}\)

Regardless to accepting the importance of Hellenism contribution toward Islamic science and philosophy, however Madjid insists that the source of the Islamic philosophy is Islamic teaching itself which rooted

\(^{16}\) Majid Fakhry, *A History of Islamic Philosophy…*, p. xvi.


from the Qur’an and the Sunnah. The philosophers from other religions are those who are religious, regardless, to the fact that in some points, their religious stands often deviated if not against the religious views of the orthodox, hence, it is impossible to judge that Islamic philosophy is the carbon copy of the Greek philosophy or Hellenism.

The Background of Hellenism from the East

The background of Islamic contact with Greek culture cannot be separated from the dynamic development of Hellenism itself. Hellenism was born out of the Great Alexander journey from Greek to the East (Small Asia, Syria, Palestine, Egypt, Persia, and India). This colonization expansion is not only to political reasons but also for the mission to unite its culture (pan-Hellenism). This was due to the teaching of Aristoteles as the teacher of Alexander. Hellenism culture itself consists of deity, religion, philosophy, ethics, and culture matters. Including the elements of mythology.¹⁹

The Hellenism is mainly maintained due to the Nestorian Christian who reside in Alexandria, Egypt, Damascus, Anticoca and Ephesus (Syria), Harran (Mesopotamia and Jundisapur). Long before Islam was revealed in Arabia, these cities have become the center of Hellenism philosophy and science development of the Greek heritage.

The Alexandria on 3 BC was the first city to become the center of ancient Greek science and philosophy development by becoming the meeting point for Hellenism and the East as well as the Ancient Egypt influence. Alexandria has the most important and most treasure heritage, that is a library full of scientific books from various disciplines which existed at that time. Hence, the scientific activities in this city were so thick.

Furthermore, C. A. Qadir explained that in Rome philosophy could lend its weight to poetry, oratory, jurisprudence, and some topics of conversation, but it was in Alexandria that it produced men who gave it

originality, vigour, and drive. Alexandria was not simply a centre of Greek culture and scholarship, but also and more significantly a meeting-place for Greek and Eastern thought. It took a cosmopolitan character and showed a marked leaning towards Oriental thought. The result of this interpretation of Greek and Semitic cultures was the synthetic civilization known as Hellenism in contradistinction to the Hellenic or purely Greek civilization. Hellenism rose to supremacy not only in Alexandria and Syria but throughout Western Asia.\(^\text{20}\)

But in the fourth century, the knowledge study in this cosmopolitan study has started to fade out as the Christian churches who cooperate with the emperor was trying to consolidate themselves in an effort to get rid of the paganism culture and influence. Several scholars were suspected and monitored, even some were killed. Not long after it, the great library in the Alexandria could not escape the narrow minded and religious over fanaticism, and was issued to be burned with all of its content by the great bishop of Alexandria. This condition more describes by C. A. Qadir that when the controversy became acute a council was held at Ephesus in 431 A. D. where the Alexandrians succeeded in getting Nestorius and his followers condemned as heretics. They were persecuted and forced to migrate from Egypt. Accordingly, they founded a school in Edessa, a Syriac-speaking district. The school became the resort of the Nestorians and centre of the vernacular speaking Syriac Church. This school was also banned and the scholars had to take refuge in Persia.\(^\text{21}\)

The Roman Empire had a large contribution to the closing down of the Greek Philosophy education institutes including those in Athens. This had become the bases for the exodus of the ancient Greek philosophers and scholars to Persia. Henry Corbin wrote in 489, the byzantine emperor Zeno closed the school those masters an student took refuge in Nisibis in 529, Justinian closed the school of philosophy at Athens, and that seven

\[^{21}\text{Ibid., p 125.}\]
of the last neo-Platonic philosophers took refuge in Iran.\textsuperscript{22}

Initially, the ancient Greek heritage came from Alexandria then moved to Antiocca and from there migrated to Nisibis, Edessa (Ruha) then to Harran through the Monophyte and Nestorian Christians. Stanton states that the main effort for the development of Hellenistic center is the presence of the Nestorians from Constantinople who were expelled by the King Leon. They resided in Edessa then to Nisibis.\textsuperscript{23} In this refugee places they translated the science and philosophy books from Greek to Syrian language.

The Nestorians had to support their theories by the prevailing philosophy and so every Nestorian missionary was to some extent a propagandist of Greek philosophy. They translated into Syriac the works of Aristotle and his commentators, and also the works of the theologians…Ibas who led the Nestorian migration to Persia translated Porphyry’s Isagoge, a manual of logic, into Syriac, while Probus produced commentaries on this book as well as on Aristotle’s Hermeneutica, De Sophisticis Elenchis, and Analytica Priora. Sergius, a Jacobite, wrote about the Isagoge, the “Table of Porphyry,” Aristotle’s “Categories” and De Mundo. He also wrote treatises on logic in seven volumes. Ahudemmeh composed treatises on the definition of logic, on free-will, on the soul, on man considered to be a microcosm, and on man as a composition of soul and body. Paul the Persian produced a treatise on logic which he dedicated to a Persian king.\textsuperscript{24}

The hatred of the Roman emperors toward the ancient Greek heritage achieved its peak on the Justinus Emperor (529), where he closed down the Athena museum which has been operated for a millennium. Thus, the ancient Greek philosophy followers moved to Byzantium then

\textsuperscript{24} C. A. Qadir, “Alexandrio Syriac Thought…,” p. 125-126.
to north Mesopotamia and to Jundisapur. In these cities, the philosophers then joined with the Nestorians and merged with the free intellectual to respect the studies of philosophy and science without any doctrinal barriers.

Before the arrival of these philosophers and scholars from Athens, the Jundisapur city (established by the Persian General, Sabur) since 260 (the third century) AC has started to become the center for philosophy and science study (especially medical study) of the Greek. This condition was supported by many scholars (architects and doctors) who were captured during the war. Gradually, Jundisapur has started to grow as a metropolis city, the center of science learned from the Greek and Sanskrit languages, and later in Syrian language.

Around the year of 555, Anusharwan established an academy in Jundisapur. This academy was modeled after the academic in Alexandria and Antioca. In this academy, the medical, mathematics, astronomy, and logic sciences were taught. Most of the text books from Greek were translated into Syrian language. Hitty describes that the science of the institution was based on the ancient Greek tradition, but the language on instruction was Aramaic.\(25\) In addition, elements from India and Persian knowledge were also included. These institutions were kept on operating up to the 8 century and were important sources for the philosophy and science in Islamic world.

The First Contact: The Ummayan Dynasty in the 7th Century

The transmission process of the Hellenistic literature was due to the large contribution of the Hellenistic scholars and thinkers. Since the 5th and the 6th century, the migration of the scholars from Athens, Alexandria, and Byzantium to Islamic protected areas have carried the legacy of science from the Hellenistic time to the northern part of the Mesopotamia and to Jundisapur, near Persia. The translation of the

Greek philosophy and science has been started to be known and learned by the scholars in the cities like Antioch, Haran, Edessa, and Qinnesrin (northern part of Syria), also in Nisibis and Ras‘aina (the highland in Iraq) since the fourth century.

This academic activity had been well practiced and undisturbed by the conquering of the Muslim army to those areas during the reign of Khalifah Umar ibn Khattab (634-644 AC). This fact, at least was proven by lively studies of the theology studies in the Qinissirin convent in Syria and the emergence of philosophers such as Severus Sebokht (575-667) who commented on the *Hermeneutica* and *Rhetorica* of Aristoteles, also Jacob (708) who wrote *Enchiridion* and translated the *Categories* by Aristoteles in the Syrian language.\(^{26}\)

This positive interaction between the Arab-Muslims and the non-Muslims could only happen in the situations that full of freedom, tolerance, and openness. Regardless to the fact that the Arabs have their own religion with its clear rules and regulations, they openly let all the centers of intellectual activities who have existed long before Islamic arrival in the area to keep existing. It’s in accordance with what was said by C.A. Qadir that the centers of learning led by the Christians continued to function unmolested even after they were subjugated by the Muslims. This indicates not only the intellectual freedom that prevailed under Muslim rule in those days, but also testifies to the Muslims love of knowledge and the respect they paid to the scholars irrespective to their religion.\(^{27}\)

After the conquering of Damascus and its development as the capital of the Syrian province (and later became the capital of the Umayyads Dynasty), interaction between the Arab culture and the Greek in Syria also happened. Therefore, during the 7th Century, the Umayyads governance relied on scientists and scholars’ community from the neighboring city, Nisibis, especially to obtain doctors. The Christian

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\(^{26}\) *Ibid.*

\(^{27}\) C. A. Qadir, “Alexandrio Syriac Thought…,” p. 34.
doctors take turn to become palace doctors during the Umayyads dynasty. In addition to become doctors, they also served as advisors for the rulers. Some of those Christian Syrian doctors are Ibnu Uthal who served the Mu’awiyah Khalifah and Tayadhuq who served the al-Hajjaj.\textsuperscript{28}

In addition to practical needs in health world, the Umayyads Khalifah consciously absorbed knowledge and architecture who based on Hellenism. This was encouraged by the needs to regulate government also to legitimate the power of the Umayyads Khalifah. The vast area of ruling from the Arabian Peninsula to the area which was previously under the Roman and Persian Empires, has given the need for the raise to legitimate not only the Islamic teaching but also the Ancient Middle East Teaching.\textsuperscript{29}

Moreover, the Umayyads also sponsored formal debates among Muslims and Christians which led to the absorption of Hellenistic concepts into Muslims theology.\textsuperscript{30} Therefore, at least around the end of the 7\textsuperscript{th} Century, Islamic contact with Greek knowledge and philosophy, through Hellenism, has happened.

As described by Ira M. Lapidus, the Hellenistic intellectuals was first draw the interest of Islamic community after they had become interested in theology. Since the end of the 7\textsuperscript{th} Century, the theological debate has been going on. This debate is not only among the Islamic community, but also among the Muslims and the Christian. The debate among the Islamic and the Christian communities were carried out in the forums of the Umayyads, which has made the Islamic community come to know the Hellenistic culture with its rational and literary arguments. Ira M. Lapidus further described.\textsuperscript{31}

\begin{quote}
\begin{itemize}
\item \textsuperscript{28} Philip K. Hitty, History of Arab…, p. 254.
\item \textsuperscript{29} Ira M. Lapidus, A History of Islamic Societies (Cambridge: Cambridge University Press, 1991), p. 80.
\item \textsuperscript{30} \textit{Ibid}, p. 68.
\item \textsuperscript{31} \textit{Ibid.}, p. 94.
\end{itemize}
\end{quote}
Among the Islamic community themselves, since the end of the 7th Century, intellectual debate regarding the God’s fairness and human responsibility has arose. During this time, the rational way of thinking has been vastly developed among the Arab-Islam intellectuals, including in matters such as *fikih* (Islamic law), and *kalam* (theology). Within theology, the rational Muktazilah doctrine which was founded by Wasil ibn Atha’ (699-748) has dominated the community thoughts, even, it became the official doctrine of the state and its various branches. According to Seyyed Hossen Nasr, this school of Muktazilah is the first systematic theology in Islam. One of the characteristics of them is rationality and Qadariyah beliefs.

However, according to Nurcholish Majid, that the first person who utilized the Greek element within the religious reasoning is Jahm ibn Shafwan who believed in the Jabariyah sect, that is a sect which consider that human has no power at all against the God’s will. Jahm collects his materials for his Jabariyan reasoning from Aristotelianism, a branch of Aristotle who said that God is a power like the power of nature, which only known universal situations with no particular situation. Then, it is impossible for God to provide good rewards and sin, and that everything that happens, including things that happen to human being, happens like those of natural law. The natural law is impersonal and uncertain, and unchallenged by man.

Majid Fakhry describes that narrow approach toward the arising problems from the study of the Qur’anic verses, cannot withheld time pressure. First, early unavoidable opposition between Islam with Paganism and Christianity, either those in Damascus or in Baghdad and the strains caused by those oppositions. Second, moral and legal problems due to the unclear description on unlimited power of God in this world, as described

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in the Qur’an and its correlation with human’s responsibility. And lastly, an urgent need to protect what has been called as unity of Islamic way of life, which cannot be developed unless using the systematic efforts and accomplishing the revelation notes (the Qur’an and the Sunnah) which are contrary in meaning with each other.35

The initial urge for philosophical thought is the fruit of deep thinking toward the holy book. According to Henry Corbin, Islamic philosophy may be seen, first and foremost, as the work of thinkers belonging to a religious community characterized by the Qur’anic expression ahl al-kitab: a people in possession of a sacred Book, a people whose religion in founded on a Book that ‘came down from Heaven’, is revealed to a prophet and is taught to the people by that prophet.36 In addition, within the Qur’an there are also theme of thinking on the essence of things which needs deep thinking to understand them. M. M. Sharif describes that Qur’an is a book essentially religious, not philosophical, but it deals with all those problems which religion and philosophy have in common.37

The strong urge to think systematically about the religious dogma has made this school to do more and more intense rationalization. In order to develop rationalization in Islam, the school of Muktazilah was largely influenced and taken from the rational and liberal Greek philosophical method. There are two reasons which encouraged the expert of theology to study philosophy. First, they found that Greek philosophy a harmony and similarity with their ways of thinking. By adopting such method of thinking, it has made them strong and fluent in making their arguments. Second, they learned the philosophical thinking method to debate and refuse other that tried to disintegrate the basic of Islamic teachings using logic and rational argumentations.

35 Majid Fakhry, A History of Islamic Philosophy…, p. xvii
36 Henry Corbin, History of Islamic Philosophy…, p. 1
37 M.M. Sharif, “Philosophical Teachings of the Qur’an…,” p. 136-137.
In turn, in responding to the problems above, it needs more solid arguments, which appear to be impossible using the philosophical arguments and the support form Greek logic. Thus, this theological discussion demands and encourages some mutakallimin Muktazilah and some Islamic scholars to do intellectual interaction with Hellenism thinking, especially those of Nestorians Christians who resided in Alexandria (Egypt), Damascus, Atioca, and Ephesus (Syria), Harran (Mesopotamia and Jundisapur).

The Islamic interest on the Greek culture has been kept lively by the translation of Greek books into Arabic language. The first translation of these books happened during the Umayyads Dynasty. Realizing the practical and pragmatical importance of this science, several members of the palace asked the Nestorian Christians and Jewish to translate their medical books from the Syrian language to Arabic Language. This activity was carried out since 683 M during the reign of the Marwan Khalifah (683-685 M). This work had acquired a considerable reputation among the Syriacs and was without doubt one of the earliest medical translations into Arabic.\(^\text{38}\)

One of the most famous person in translation of this medical science is Masarjawayh, a Jewish who resided in Bashrah. He was recorded in the history of the Umayyads, especially during the reign of the Marwan Khalifah around 683-685 M. Hitty said that Masarjawayh is a Jewish physician of Persian origin, Masarjawayh of Al-Bashrah, who flourished in the first days of Marwan ibn al-Hakam, translated (683) into Arabic a Syriac treatise on medicine originally composed in Greek by a Christian priest in Alexandria, Ahrun by name.\(^\text{39}\) The translated version which was written in 683 M, had become the earliest scientific book in the language of Islam.\(^\text{40}\)


\(^{40}\) Ibid.
Similarly, in astronomy, the translation was made due to the doctrine of the religions from the East, which considered the stars as the tools to learn about the supranatural; and that the movement of the stars could be used to interpret the God’s will. Thus, a strong urge to understand astrology as well as encouraging the translation efforts in the Umayyads government, especially during the reign of the Khalifah Abd al-Malik (685-705 M). However, in this era, the translated books are more on the subjects of administration, reports, and government documentation, to balance and be free of the influence of Byzantium-Persian administration model.\textsuperscript{41}

Based on the earliest historical record, \textit{Fihrist} which was written by Ibn Nadhim, around 683-685 AC, translation of books related to practical science such as medicine, chemistry, and astrology have been made. This effort was carried out by Prince Khalid bin Yazid (passed away in 704 M). Fakhry described that the credit for initiating the process of translating alchemical, astrological, and medical works must be attributed to Khalid b. Yazid the Ummayyad prince.\textsuperscript{42} Prince Khalid is considered to have contributed to introduce philosophy to Arab-Arab community.\textsuperscript{43} Even, Hitty called Prince Khalid as the philosopher of the Marwanids…the first in Islam to have translations made from Greeks and Coptic books on alchemy, medicine and astrology.\textsuperscript{44} Unfortunately, as government is more focused on political and economic matters, these scientific efforts were not properly carried out.

\textbf{Further Contact: Abbasian Dynasty during the Mid-8\textsuperscript{th} Century}

The Islamic interest on the Greek heritage has become more and more intense as the closer contact with the Greek heritage was made during the Abbasian dynasty. This more intensive and comprehensive

\textsuperscript{41} Majid Fakhry, \textit{A History of Islamic Philosophy}…, p.4.
\textsuperscript{42} Ibid.
\textsuperscript{43} Ibid., p. xxii
\textsuperscript{44} Philip K. Hitty, \textit{History of Arab}…, p. 255.
contact with the Greek culture happened when the Arab moved to conquer the fertile Crescent Area. This area is spread from the coast of Middle Sea and curving in to the plain between the Efrat and Tigris rivers—Mesopotamia—to the Persian Gulf. Various attacks to the Roman land had become the way for the arrival of the Greek manuscript into the Arab-Islam world in addition to the wealth seized during the war, which especially came from Amorim and Ankara.\footnote{Ibid., p. 309.}

Since the al-Mansur ascended to the throne, the Islam has been carried away by the influence of the Greek civilization. As he felt insecure among the Arabs which often fight for power, al-Mansur relocated his center of government to Baghdad, near the capital of Persia, Ctesiphon, in around 762 AC. The army who guarded the al-Manshur was also appointed from the Persian, Khalid bin Barmark, who came from Balkh Persia, was appointed as deputy prime minister/vizier.

The Barmark family came from Balkh (Bactra)-center of Greek science and philosophy in Persia who had influence in the development of Greek science and philosophy in Baghdad. Aside from being a vizier, they also educated the Khalifah’s children. Khalifah’s al-Mansur also appointed a chief doctor from the central of well-known medication center in Jundisapur, Jurjis bin Bakhsitu, a Nestorian Christian, where his son later replaced his position.\footnote{Ibid.}

The presence of these scientists and doctors from Persia have made the Islamic community more interested toward the Greek science and philosophy. From the interest in theology, Hellenism had finally encouraged the Islamic intellectuals to learn science and philosophy itself. Therefore, the most profound impact of Hellenistic culture upon the growth of Islamic civilization was in the realm of philosophy. Hellenistic philosophy thus represented a heritage of rational reflection upon metaphysical reality, the physical world, and human being which...
posed a fundamental challenge to the Qur’anic revelation as a source of complete and infallible truth.\textsuperscript{47}

The Khalifah al-Mansur was often portrayed as a hard figure, liked to occupy doctors, scientists, and astrologists in his palace. He appointed the most famous medical person, Georgius bin Jabra’il, the principal in Jundishapur medical school in Persia, and his apprentice, Isa bin Syahlata, as the palace doctors. Among the most well-known astrologers, is a Persian, al-Naubakti. The Khalifah also elected famous scholars to translate medical and other books for himself, such as, al-Bithriq, who have translated medical and astrology books.\textsuperscript{48}

To transfer Greek works into Islam, al-Manshur, who was more interested in philosophy and science had provided great support and protection for the translation activities. However, due to the lack of good translators and the scientific and philosophical materials of the Greek, the translation progress was not as expected up to the 9\textsuperscript{th} Century.\textsuperscript{49}

The translation of the Greek culture which was started by the Khalifah al-Manshur was carried over by the Khalifah al-Rasyid. During his reign, he established a hospital. The development of this hospital has influenced the Muslim community to learn medical science. In addition, through literary works, the Muslim community also gain medical knowledge through the healing practices in the hospital.

The Khalifah ar-Rashid was also strongly active in translating the foreign books into Arabic language. The translator council was made for this purpose and to dig information on these foreign books. The translator council was headed by an expert, Yuhana bin Musawyh (777-857 M), who introduced new translation method which instead of translating words by words, this method translated sentence by sentence. This method understands the context of the text better as the word structure in the Greek language is different from the structure of sentence in the Arabic language.

\textsuperscript{47} Ira M. Lapidus, \textit{A History of Islamic...}, p. 79.
\textsuperscript{48} Philip K. Hitty, \textit{History of Arab...}, p. 309.
\textsuperscript{49} Majid Fakhry, \textit{A History of Islamic Philosophy...}, p. 7.

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During the Harun ar-Rashid, an institution called Khizanah al-Hikmah was established. This institution served as a library and research center. In this library, there are various books on various topics, either in Arabic or in other languages, such as Greek, Hindi, etc. At this time, this institute also served as a center of translation.

During the reign of the Khalifah al-Ma’mun, he was a step ahead of his father. The golden age of the translation time has reached its peak with the establishment of Bayt al-Hikmah, an institution and a library for research and translation services established in 830 M. This institution became the basis for the collection of the Greek manuscripts and the center for translation of scientific books of the Greek. To equip his library, al-Ma’mun sent a mission to Byzantium to obtain the old manuscripts from the Hellenism time which later translated by a group of scholars, such as, Yahyah bin Maswaih who have served al- Manshur and Harun al-Rasyid and was appointed as the head of this institution; as well as al-Hajaj bin Mathar and Yahya bin al-Bitriq.\(^{50}\)

Within the Bayt al-Hikmah there was an observatory. The themes that had become the object of research and translation are the works of Plato, Aristoteles, Hippocrates, Galen, Ptolemy etc. Their works had been translated into Arabic language. There were many works from the Greek heritage that had been translated into Arabic. As this translation was massively done, it is not surprising that Bernd Lewis called Islam as the third inheritor of the Greek heritage after Greek and Latin Christendom.\(^{51}\) The works that were translated is not only Greek philosophy written by the Nestorians, Pagans, and the followers of Neo-Platonism who resided in Syria, Mesopotamia, and Persia, but also the Greek books taken from the Byzantium regions which have been conquered by Islam.

Here in this time, Hunain bin Ishaq (809-877 M), an original Greek translator, has been well-known. According to Montgomery Watt,\(^{50}\)\(^{51}\)


Hunain has some advantages compared to other translators. Where other translators translated the Greek books from Syrian language, Hunain ibn Ishaq translated directly from the Greek language as well as philosophically studying those works.\footnote{M.M. Watt, Islamic Philosophy and Theology (Edinburg: Edinburg University Press, 1992), p. 38.}

Due to his will to develop science as the super power of the world at that time, al-Ma’mun established a translator’s team which consisted of Hunain bin Ishaq, which was assisted by his son, Ishaq and his nephew Hubaish and other scientists such as Qusta ibn Luqa, a Jacobite Christian, Abu Bisr Matta ibn Yunus; a Nestorian Christian, Ibn ‘Adi, Yahya ibn Bitriq etc. This team translated the Greek manuscripts, especially those contained the most needed science such as, medical science.

Under the guidance of Hunain, 100 Galen’s books in healing science and philosophy have been translated into Syrian language, and 39 have been translated to Arabic language. In addition to these Greek manuscripts, the ancient Syrian manuscript was also used as comparison in interpreting the manuscript. This translation work was strongly supported by the al-Ma’mun, and he valued their works highly, even by paying the translation works similar to the weight of the works in gold.

Through this initiative and high incentive, the scientists were encouraged to translate various science texts from various languages such as Greek, Syria, and Sanskrit. The khalifah who loved the science invited the scientists from various religion to come to Bayt al-Hikmah. Al-Ma’mun palced the intellectuals in highly respected position. The philosophers, language experts, doctors, physics experts, mathematicians, astronomers, legal experts, and scholars from other branch of science were highly paid. In this institution, al-Ma’mun hired Muhammad ibn Musa al-Khawarizmi, an expert in Algebra, astronomy, as well as founder of algorithm.\footnote{Philip K. Hitty, History of Arab..., p. 474.}
During this reign of the Khalifah al-Ma’mun, is what has been called by Hitty as the golden era of the Greek influence in Arab-Islam Community,\textsuperscript{54} where the rational Arab thinking which based on bayan meets the rational Greek thinking which based on proof. This is appropriate with Abid Al Jabiri’s argument that the movement of ‘revival’ emerging during the rule of al-Ma’mun was a revolution against the scholastic Hermetism. Hence came the ‘historical’ meeting between the Arab religious rational and the Greek Aristotelian rational of reason, between the epistemological order of the Arab bayan and the Greek epistemological order of the burhan (evidentiary proof/demonstration).\textsuperscript{55}

The combination of these two rational systemic thinking, both of the Bayan Arab and the evidentiary epistemology of the Greek, was due to the Abbasid khalifah political factor to repel the attack of the Manichean school related to Gnosticism and the influence of Shi’ite sect on the other hand who drove toward illuminative. These two sects were not only a threat toward the power of the Abbasids, but more than that, it is a threat toward the unification of the Muktazilah and Sunni.\textsuperscript{56}

**Conclusion**

Based on the discussion above, several conclusions are reached: first, the initial contact between Islam and the Greek science and philosophy had happened since the end of the 7\textsuperscript{th} Century during the Umayyad dynasty. We refused the theory which stated that the initial contact happened during the Abbasid reign in the middle of the 8\textsuperscript{th} Century. Historical facts showed that at the end of the 7\textsuperscript{th} Century, translations of the Greek science and philosophy have been made, regardless to the fact that this translation was made indirectly (from the Syrian language).

\textsuperscript{54} Ibid.
\textsuperscript{56} Ibid., p. 283.
Second, the initial encouragement to learn and translate the Greek science and philosophy was due to three main factors: a) the stimulus from the Qur’an itself which contains deep thinking elements; b) the needs of the Muslim to debate, both among the Muslim community themselves and with Non-Muslim groups; and c) the needs of the khalifah in government and for their political legitimation, including development of practical sciences.

Third, intellectual contact with Hellenism has brought significant influence in Islamic civilization, especially in Islamic thinking and philosophy. Translation of Hellenism works is not merely on the purpose of translation of the works. Initially, there were many Muslims works which often titled as the interpretation of those Greek books. This interpretation has encouraged the intellectual Muslims to further study the topic, hence, original Muslims authors were born. They were no longer translate or made interpretation of the works, rather, they developed those works by making critical review, scientific observation, and combine those works with Islamic teachings.
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**Bibliography**


_______“Alexandrio Syriac Thought” M. M. Sharif (ed.), *A History of*
Pepen Irpan F.; A. Khoirul Fata: Hellenism in Islam.................

Muslim Philosophy with Short Accounts of Other Disciplines and the Modern Renaissance in the Muslim Lands, Pakistan: Pakistan Philosophical Congress, 1962.


