The Contribution of Translation to Arabic and Islamic Civilization during the Golden Age: 661-1258

Smail Hadj Mahammed

Abstract—Translation is not merely a process of conveying the meaning from one particular language into another to overcome language barriers and ensure a good understanding; it is also a work of civilization and progress. Without the translation of Greek, Indian and Persian works, Arabic and Islamic Civilization would not have taken off, and without the translations of Arabic works into Latin, and then into European languages, the scientific and technological revolution of the modern world would not have taken place. In this context, the present paper seeks to investigate how the translation movement contributed to the Arabic and Islamic Civilizations during the Golden Age. The paper consists of three major parts: the first part provides a brief historical overview of the translation movement during the golden age, which witnessed two important eras: the Umayyad and Abbasid eras. The second part shows the main reasons why translation was a prominent cultural activity during the Golden Age and why it gained great interest from the Arabs. The last part highlights the constructive contribution of translation to the Arabic and Islamic Civilization during the period (661–1258). The results demonstrate that Arabic translation movement during the Golden Age had significantly assisted in enriching the Arabic and Islamic civilizations considering the major and important scientific works of old Greek, Indian and Persian civilizations which had been absorbed.

Keywords—Arabic and Islamic civilization, contribution, golden age, translation.

I. INTRODUCTION

TRANSLATION has always provided a solid platform for the advancement of civilization by establishing the epistemological path and identifying the necessary amount of knowledge that should be reached, as nations do not begin their renaissance from scratch, but from the translated works that are nothing but experiences, knowledge and expertise of other cultures and civilizations.

If translation is necessary for the advance of any civilization, on the other hand it plays the role of a thermometer for measuring the civilization's life cycle, as the number of the translated books can be a witness to the degree of progress any civilization has reached. It also reflects its richness, openness to other civilizations, its prosperity and its willingness to build bridges of communication and collaboration through exchange of ideas.

Reference [1] points out that "Translation is the only medium that enables a nation to make its culture known to different peoples, to discover different works and expand its knowledge about other civilizations, but also about the world itself, what gives it more chances to see this latter from different perspectives and thus prosper and progress".

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The Greeks translated the treasures of science, astrology, art and mathematics from ancient civilizations that surrounded them such as the ancient Persian and Egyptian civilizations, Arabic and Islamic Culture has also thrived thanks to the translation of ancient Indian, Persian and Greek heritage. Similarly, Europe experienced an intellectual and economic revival immediately after the translation of Andalusian heritage and the treasures of knowledge coming from Byzantine. Based on this, the objectives of the present paper are as follows:

✓ To shed some light on the translation movement in the Arab world during the Golden Age
✓ To discuss the main reasons why translation activity gained great interest from the Arabs
✓ To talk about the contribution of translation to the Arabic and Islamic Civilization during the Golden Age.

II. THE GOLDEN AGE OF ARABIC TRANSLATION: A BRIEF HISTORICAL OVERVIEW

The Golden Age refers to a period in the history of the Arab world, which traditionally dates back from the 8th century to the 13th century, during which much of the historical Islamic world was ruled by various caliphs [2].

The concept of seeking knowledge has always been fundamental in the Islamic philosophy and the very first revelation that came to the Prophet Muhammad (ﷺ) was a command to read and write. The Holy Quran and the noble prophetic Sunna bear ample witness to this emphasis on learning. Allah, the Almighty says:

«Read with the name of thy Lord, Who createth, Createth man from a clot. Read, and thy Lord is the Most Bounteous, Who teacheth by the pen: Teacheth man that which he knew not» [3].

Abu Hurairah narrated that the Messenger of Allah (ﷺ) said: «Whoever takes a path upon which to obtain knowledge, Allah makes the path to Paradise easy for him» [4].

In another hadith, The Prophet (ﷺ) states that:

«The wise statement is the lost property of the believer, so wherever he finds it, then he is more worthy of it» [4]

Islam encourages the believers to learn from all sources in the world. This is because its principles stipulate that seeking knowledge is obligatory upon every Muslim. Besides, Islam does not separate the worldly sciences from the second life sciences [6]; therefore Muslim scientists were scholars in Islam as well as in any secular science such as philosophy, astrology, medicine or any other branch of knowledge, such as...
Ibn Al Nafis or Ibn Sina, Ibn Rushd among other scientists. These commands open up the Arabo-Islamic world to knowledge from all over the world. This was achieved by a significant number of scholars from different corners of the world with different cultural backgrounds who were commissioned by the caliphs to collect and translate all of the world’s classical knowledge into the Arabic language [25].

Within this frame of reference, the following part will provide a brief overview of the translation movement during Umayyad and the Abbasid dynasties.

A. Umayyad Era (661–750)

The Umayyad Empire was the second major Arabic empire that succeeded the Prophet Muhammad (ﷺ). It was established by a powerful family from Mecca and ruled from 661 to 750. The capital city of the Umayyad Empire was Damascus [5].

The translation process in the Umayyad period is considered as the first stage of the whole Arab translation movement in the Islamic time [6].

One of the important accomplishments achieved during the Umayyad dynasty was the Arabization of the administration involving the translation of official documents allowing the Arabic language to become the official language of communication within the empire.

It was during the reign of Caliph Khalid bin Yazeed that the first translation of a scientific book appeared. He was well known of his fond of alchemy and medicine, contributing significantly to the translation of non-Arabic works into Arabic, including books on alchemy, medicine, and astrology from Greek and Coptic into Arabic [7].

The translation movement in this era is considered as a watershed in the whole translation process in the Arab World, as it included the translation of the basic branches of science such as medicine, chemistry among others, because they are essential for the life of the human being [6].

B. The Abbassid Era (750-1258)

During the Abbassid era (750-1258 AD), the Arabic translation movement really took off. Written works were imported and translated into Arabic. These were from different cultures and languages such as Chinese, Persian, Indian, Greek, and Spanish. It is also in this era that the Quran was first translated from Arabic into Persian. The Abbassid era is one of the most glorious eras, during which literature, science and arts flourished by virtue of direct contact with nearby nations which enabled the Arabs to find out what their neighbors had reached in terms of culture and civilization [8].

The establishment of the House of Wisdom (Bayt al-Wisdom) in Baghdad under the reign of Al-Ma’moun had a substantial impact on the development of the Arabic translation movement. As a matter of fact, many translators translated many books in this vivid scientific institute. Several scientific and philosophical books were requested from Western libraries, such as that of Constantinople, and brought back to Baghdad for translation [9].

According to [10], in the Abbasid period (198–300), the translation movement flourished, scientific activity increased, books were translated in all the sciences, ethics, philosophy and psychology, and at this stage, astronomy, medicine, logic and philosophy were transferred. On this basis, it can be concluded that the Abbassids played an important role in the development of the Arabic translation movement through translating books of different cultures such as Greek, Indian, and Persian…and that libraries during the Abbassid ruling era contained enormous collections of books and works that had been translated to fulfill the needs of scientific research.

Translation in the Umayyad era was considered to be an individual endeavor which ended with the death of the translator. But on the other hand, translation in the Abbassid era became the work of the nation and not the work of individuals. As a result, a large school of translators (House of Wisdom) was established, and this school did not suffer from the death of one of its members.

III. THE REASONS FOR THE EARLY ARABS’ INTEREST IN TRANSLATION

Translation was a prominent cultural activity during the Golden Age as it gained great interest from the Muslims.

After the death of the Prophet Muhammad (ﷺ), Islam spread to many foreign nations. This caused Arabs to mingle with those nations, such as Persians, Romanians and Egyptians, and here translation was a must for Arabs so as to be able to explain to people the principles and teachings of Islam and manage their political affairs among those nations [11]. So, the motive of Muslims and Arabs to spread their religion, which is inseparable from Arabic language, encouraged them to learn the languages of other people that the Islamic Conquest reached. This desire for learning the languages of the conquered regions was due to the wish of teaching their inhabitants the basics of Islam. The Holy Qur’an also urges believers to learn different languages and respect their diversity, considering this fact to be a sign of ability of the Almighty Allah [12]. In addition, the expansion of the Islamic state made the need for sciences and arts that correspond with this expansion. For instance, building roads and palaces needs the art of engineering and mathematics. Consequently, there were the sciences of medicine, engineering and mathematics to meet the basic and subordinate needs, so that was what led the caliphs to take care of translating the knowledge of the previous civilizations, and the availability of funds helped them a lot in that issue.

In the Abbassid era, the caliphs believed that knowledge and culture are among the most important factors on which the renaissance of countries is based, especially that Islam advises its followers to seek knowledge from cradle to grave. Not only did the caliphs interest in religious sciences, they also turned their attention to searching for knowledge and science in previous civilizations. They embarked on translating from Indian, Greek, Syrian and Persian civilizations. Thus, they excavated the treasures of those civilizations and served them by preserving them, translating them into more than one language, explaining them and adding their touches to them.

It is also worth mentioning that the interreligious discussions that were held to debate over complex theological
topics with prominent theologians at that time pushed the caliphs to find out what has been said in that regard especially by the ancient Greek philosophers. In addition to the motives of rulers and princes, if one of them is attracted to a specific field, he prompted translators to translate the old books that deal with that aspect, as had been done in the subjects of medicine, astrology and logic by some caliphs.

IV. IMPACT OF TRANSLATION ON ARABIC AND ISLAMIC CIVILIZATION

During the Golden Age, the translation movement witnessed a dynamic progression during the reign of caliphs who sent translators to the East and the West to collect books and then translate them making several scientific and philosophical books available to the Arabs. Section IV brings into light how the translation movement contributed to the Arabic and Islamic Civilization during the Golden Age through three aspects: Science and mathematics, philosophy and theology and the Arabic language.

A. Science and Mathematics

Among the main important translations carried out in the field of science and mathematics, we highlight the Arabic versions of «The Elements» which is a mathematical treatise comprising thirteen books that are mainly related to the Greek mathematician Euclid [26]; they are one of the great achievements of geometric and mathematical logic, and an amazing example of deductive reasoning. In the same vein, Muslim scholars derived their theory of numbers in arithmetic from translations of the previously mentioned sources: «The Elements» as well as from the book: «Introduction to the Science of Numbers» by Nicomachus of Gerasa [13]. In addition to that, Muslim scholars acquired numerals from India (Hindu) and possibly China and made their use widespread. So, the Muslim scholars collected the knowledge produced by scholars of the previous nations in the field of mathematics, and then they translated it. From there, they embarked on discovery, innovation and creativity. For example, Mohammad Bin Ahmed in the 10th century invented the concept of zero (0). Thus, this stunning invention replaced the cumbersome Roman numerals and created a revolution in mathematics [14]. This invention has led to advances in the prediction of the movement of the planets and advances in the fields of astronomy and geography.

B. Philosophy and Theology

Considerable effort was expended to translate Greek philosophy, which embraced ethics, metaphysics, and logic. Therefore, Muslim scholars engaged themselves in studying this branch of knowledge especially they were used to the freedom of speech and thought.

The use of philosophy contributed to improving the methodology of religious studies by inserting the methodical philosophy as a part of religious research resources. By way of example, Al-Kindi followed Aristotle (a Greek philosopher) in trying to prove the existence of God (Allah) by significant hypotheses which suggested that no occurrence would happen without an actor who can do an action. Furthermore, there are many sensible things and perceived species that would not exist without a creator who is God (Allah) [15], [16]. Additionally, Al-Kindi was the first Muslim scholar who tried to introduce a modern approach for understanding the meaning of Qur'anic texts clearly by using a logical approach. Besides this, he attempted to explain a number of complicated issues in the monotheism of Islam which were argued logically during the 9th, 10th and 11th centuries [17]. It is important to note that Greek heritage played an interesting role in affecting Islamic philosophical beliefs which could be observed in the evolvement of Muslim philosophers' opinions during this era.

Translation of philosophy had also significantly contributed to the emergence of new branches of Muslim communities such as Mu'tazila who believed in the importance of Greek philosophy, they found it crucial to defend their beliefs against their opponents. This is due to the fact that both Jews and Christians armed themselves with Greek logic and philosophy to use them in debates with Muslim philosophers, and Muslims in their turn wanted to fight back with the same tools [18]. Therefore, the idea of religious tolerance among the Dhimmis (the 'protected' Jewish and Christian communities in Islamic lands) and Magus has emerged; this is through bringing them closer to caliphs, princes and guardians, honoring them for the great efforts they have deployed in the field of translation. This has resulted in the fact that the Dhimmis and Magus performed their religious rituals in complete freedom, and defended their beliefs openly. They also debated Muslims over religious matters and possibly in front of the caliph. So, people of different faiths would show what they believe and see as closer to reason and logic [19].

C. The Arabic Language

The Arabic language has proved to be capable of absorbing the scientific terms, given that a good number of terms have been incorporated into its lexicon through translation, with the aim of coping with the scientific and philosophical developments that had taken place in Greece, Persia and India for thousand years.

The Arabic language had not been without scientific terminology before the beginning of translation movement. Despite their scarcity, the Arabic medical terms existed before the translation movement such as (هَجَامَة) [hijama] bloodletting, (كَحَّالَة) [khihala] ophthalmology, (كَيْب) [kayy] branding, (سَيْدَلِيَّة) [saydaliya] pharmaceutics, (رَبْو) [rabou] asthma, (تَشْنُّج) [techanou] convulsion and (دِبَّحَة) [dhibha] angina, the same can be said as regards other fields such as astronomy and meteorology. For this reason, translators have used these terms to derive new words that express the intended meanings in the translated texts.

They also resorted to the technique of Arabization which is used when there is no Arabic word to which the foreign word can be translated or when there is no word from which a verb or noun can be derived [20].

Arabization was carried out through one of the following methods: Linguistic borrowing, figurative translation and
The Arabic language borrowed a lot of Persian words, which became common among Arabic speakers. Some of these borrowed words can be seen in Table I [21].

### Table I: Some Arabic Words of Persian Origin

<table>
<thead>
<tr>
<th>Arabic word</th>
<th>English equivalent</th>
<th>Origin</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>أرباط</td>
<td>rope</td>
<td>Persian</td>
<td>It is from the Persian word which means to pour water.</td>
</tr>
<tr>
<td>أستاذ</td>
<td>teacher</td>
<td>Persian</td>
<td>It is from the Persian word which means a teacher or expert craftsman.</td>
</tr>
<tr>
<td>نخ</td>
<td>luck / fortune</td>
<td>Persian</td>
<td>It is borrowed without any alteration in pronunciation, i.e. it is articulated in Arabic in the same way.</td>
</tr>
<tr>
<td>دستور</td>
<td>Constitution</td>
<td>Persian</td>
<td>It is the book of the king’s law. It is a combination of two Persian words: دست ‘the rule/law’ and تور ‘the owner of’, that is the owner of laws, the king.</td>
</tr>
<tr>
<td>مشهورة</td>
<td>Fame</td>
<td>Persian</td>
<td>The word means ‘the path of the greatness’. This word is derived from two Persian words: شه ‘that means the sultan/king’ and م ‘that means the path’.</td>
</tr>
<tr>
<td>شهد</td>
<td>Honey</td>
<td>Persian</td>
<td>This word is borrowed from Persian without any modifications.</td>
</tr>
</tbody>
</table>

According to [22] the Arabization of science is one of the pillars of the development to keep up with the civilization and the creative, effective participation in all the fields of knowledge; therefore, the Arabic language will become the language of modern sciences and technology as well as the language of research and teaching at different branches of knowledge. It is worth noting that this movement of translation had a major impact on enriching the Arabic language with medical, chemical, natural, mathematical and astronomical terminology, as well as introducing countless new vocabulary as a result of the efforts of translators and scientists who made Greek philosophical and scientific heritage available to the Arab mind that carried the torch of thought and science for centuries.

The diacritical marks are also among the aspects of language that were introduced to the Arabic language through translation.

The science of Arabic Grammar (an-nahw) emerged at the end of the first century to record the language and keep it away from mistakes. This science has been influenced by the Syriac grammar and the Arabs have taken their diacritical and vocalization systems from Syriac. In this context, it is reported that Abu al-Aswad al-Du’ali, who laid formal rules for the Arabic language, have introduced the use of diacritics (consonant and vowel markings) to Arabic writing making use of his knowledge of Greek and Syriac languages [23].

The diacritical marks are placed either above or below the letters to indicate the phonetic information associated with each letter to clarify the sense and meaning of the word as shown in Table II.

### Table II: The Basic Arabic Diacritics

<table>
<thead>
<tr>
<th>Diacritic on the letter</th>
<th>Transliterated name</th>
<th>Arabic name</th>
<th>Place</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ب</td>
<td>fatha</td>
<td>فتحة</td>
<td>above</td>
<td>/b/ /a/</td>
</tr>
<tr>
<td>د</td>
<td>damma</td>
<td>دممة</td>
<td>above</td>
<td>/b/ /a/</td>
</tr>
<tr>
<td>س</td>
<td>kasra</td>
<td>كسرة</td>
<td>below</td>
<td>/b/ /i/</td>
</tr>
<tr>
<td>م</td>
<td>sukoon</td>
<td>سكون</td>
<td>above</td>
<td>/b/</td>
</tr>
</tbody>
</table>

Diacritical marks are significant in that they elucidate the meaning of words especially that even the native speakers of Arabic language may get confused due to the absence of these markings [24].

Thanks to translation movement, the Arabic language has greatly benefited from diacritics, especially in the era of expansion of the Islamic Empire, with millions of newly converted non-native speakers wishing to read and recite the Quran, made the learning of these diacritical marks necessary in order to be able to read correctly, and produce comprehensible speech in Arabic without communication breakdown.

### V. Conclusion

The contribution of translation to the Arabic and Islamic Civilization during the Golden Age has been discussed and identified in this research paper. The translation activities during that period of time have implied various branches of knowledge, such as philosophy, medicine, chemistry, astrology among others.

The study concludes that translation has significantly contributed to enriching the Arabic and Islamic Civilization, and lit a flame that flares up forever for the pioneers and founders of the civilization during the Umayyad and Abbasid eras, and that translation activity is indispensable in all ages between different nations as it forms a basis from which any civilization can flourish.

Caliphs in the Golden Age were aware that diversity of cultures is a natural state that works to fuel human curiosity to reach out for other nations; therefore, they grant major interest to translation from other nations' sciences in order to learn from their knowledge and their human experience.

Some source languages have had an influence on Arabic language in more than one area, particularly in the area of
terminology as a good number of terms have been incorporated into the Arabic lexicon in order to cope with the flow of sciences.

Each nation that yearns for an honored place among other nations should not keep itself remote from the spotlight of the modern world that is only realized by mastering the art of communicating and interacting with the other using their own language and the language of other nations as well.

The study recommends that today’s intellectuals and academics should go back to that Golden Era of translation and study it carefully to identify the contribution of translation today, and find out the extent to which the Arabic translation today contributes to the process of catching up with the most advanced civilizations, and what impact it has on the push for a further rapprochement between peoples, and the extent to which the Arabic translation has changed the direction of Arab culture from state of isolation to openness to the other.

REFERENCES


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