



The Effect of Iranian Sciences on Islamic and Arabic Culture during the First Two of Hejira Centuries and Compiling of Sciences by Iranian

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ABSTRACT

Before the emergence of Islam, Arabs did not know anything about arts and Sciences (except for poetry and Lecture). However, after the defeat of Iranian Kingdom, due to their longer presence in Iran, the Arabs were attracted to the culture and civilization of Iran. Iranians with their civilized and cultural background immediately forgot the defeat and helped with the Sciences, techniques and thoughts. This way, they took the initiatives and brought the Sciences and techniques which, Arabs were not aware of, into the Islam; Sciences such as medicine, astronomy, music, architecture, mathematics and arts. Iranians started to compile, translate and teach the books to their students. The present article which covers the first period of the reign of the Abbasid, based on the historical documents, discusses the way Arabs got familiar with Iranian sciences and it studies the influence and spread of these sciences into the world of Islam and Moslems.

Keywords: Arabs, Iranian, Iranian Sciences, Islamic culture

INTRODUCTION

Before the emergence of Islam and in the early Islam, Arabs did not know anything about arts and Sciences. At the time of the Prophet Mohammad, God's commandments, were often delivered to people orally and were memorized, so there were no need for authorship. It is noted in the book "Kasf Alzonon" that, Arabs of early Islam didn't pay any attention to none of the sciences but their own language and recognition of Islam principles and some necessary medical techniques which were known by some of them [1].

Some believe that this neglect is due to the purpose of keeping Islamic rules safe from misleading beliefs and also declare that, Muslim's beliefs would remain safe from the effects of other sciences as the result [2].

After the Islamic conquests in the realm of developments, gradually acquiring other sciences were of the necessities and erudition was considered as a necessity of greatness. Because Iranian possessed a glorious and long-standing history and civilization and were beyond Arabs in developing and learning sciences, they gradually occupied all key positions, especially in the first era of the Abbasid Caliphate. From then on, Arab Muslims had to gain knowledge in the service of Iranian experienced adepts.

Iranian influence on Arabs in the fields of Science and Technology

Due to the connection of Arabs with civilized nations especially Iran, they recognized the result of their science and industry and really need to know about industry and science, so they were resorting to valets who were pioneer in these fields. In the era of Islamic civilization, the industries that were initially considered to be non-notable for Arabs had become the subject of wealth and commerce for Muslims.

From the early years of accepting Islam, Iranians had never had the filing of a defeated and weak nation and against the Arabs who used to call them Ajam and valets, they introduced themselves as descendants of Jam, Khosro and noblemen and believed that the Arabs had offered neither art nor industry and neither knowledge nor wisdom to the world, and had no use but looting and killing people" [3].

From the Early Abbasid state, rational sciences became common among Muslims, and among them, because of the need for universal health care, particularly the health of Islamic caliphs the medicine was paid much more

attention than others and was very important. And in these fields, many books were translated from Pahlavi into Arabic and by Iranian efforts; the first Islamic hospital was built in Abbasid era.

After medicine, astronomy was more influential among Muslims. It is narrated about some Islamic Caliphs that their belief to astronomical rules, causes them not to do anything without consulting with astronomers [2].

About sciences on music, architecture and other sciences, there are some evidences to clarify that Arabs used to apply Iranians customs and take advantage of their Knowledge in these fields.

Various industries and professional masters had a special place in the for Iranians as well, including crafts such as carpet weaving and knitting fabrics and textiles and metal industries such as making jewels, making tools and utensils and instruments of war and the military. "Woollen garment and sumptuous silk curtains in Fasa, excellent carpets in Jahrom , silk and lace garments in Isfahan , high-grade passementeries in Tabarestan and Neishabur, very high quality cloaks in Kerman and cotton and silk carpets were made in Shooshtar" [4, 5].

From the time of Umayyad caliphs that the Muslims' attention was drawn to the glamour and luxury of aristocratic life, woven textiles of Iranians were gradually used by Arab leaders. For example Movie and some of his brokers, had used Iranian fabrics and garments.

Also paying attention to glamour and luxury, led the gold making Art of Sassanid era to be considered by Islamic Caliphs and the customers of these gilded objects, were often caliphs and officials and altars [6].

Jewel industry in the early centuries of Islam, especially in the Abbasid era was developed and Precious stones which were used in them were often supplied from mining cities of Iran. About the jewel industry during the Abbasid era, "Philip Hata" writes:

"Gold and silver those were so abundant and led to the development of gold and jewel industry in the empire, were originated from Khorasan and also marble and mercury were originated from there" [5].

1- Iranian and the medicine

The most important science which Arabs Muslims learned from Iranian was medicine. In Umayyad and Abbasid era, Jundishapur Hospital with it's Iranian, qualified and experienced physicians had particular reputation and importance and for the first time, the physicians of this hospital proceeded to write medical and pharmacological books in Arabic and translated some books from Pahlavi to Arabic. is noted in the book "History of the Arabs" that: "Iranian were the greatest authors of medical books in this era, and used to write their compilation the in Arabic" [5] the professors of Jundishapur Hospital, were the first Iranians that translated wrote medical and psychological books into Arabic and their books were the reference books for Islamic physicians during the next several centuries. We can name Yakhshu Ebn-E Jerjis as one of the best-known authors.

The first Islamic Hospital in Baghdad, were built in Harun al-Rashid's time by an Iranian physician, which was an imitation of Iranian Jundishapur Hospital in all matters [5].

About the Iranians and the establishment of a hospital for the Arabs, Ahmad Amin, writes: "The Iranians made it common to build hospitals in Islamic civilization; and later apply the hospitals instead of Sick Houses. Terms related to medicines, had been applied in Arabic medical books with Persian words since ancient till now, which are also common now. Even Arabs, by the use of Persian word, call pharmacies as Sharabkhana" [7].

Iranian had reached to such progress in different fields of science especially medical due to their expertise in various sciences; that Abbasid Caliphs used to put a great deal as Jundishapur teachers in the presence of the caliph, freely spoke English and somehow reminded the Caliph their Iranian Identity [8].

2- Iranians and astronomy science

In the eyes of the Iranian people, astronomy and astrology were of extraordinary

importance, and also it had been accepted by Islamic scholars after Islam, so that many books have been translated into Arabic in the field of astronomy and in this way, many Persian terms of this knowledge had become common among the Arabs: "Numerous books in astrology that have been translated from Pahlavi into Arabic have a wide propagation, and particularly Persian terms belonging to this science, had become common in Arabic and Islamic books, as "Kadkhoda", "Janbkhtan", "Hilaj".

Since the early translators of these sciences like Nobakht family and Omar Ibn Farakhan Tabari were Iranian, had recorded exactly the Persian terms"[9].

Another prominent subjects of Iranian astronomy which were derived from Pahlavi books into the similar Islamic works, was applying solar history which was called in the Islamic era, by the name of last king of the Sassanid destiny, Yazdegerd; and has become the base of all Islamic horoscopes [10].

Some of Abbasid Caliphs, had a strong belief in astronomical rules e For example Mansur Abbasi, the second Abbasid Caliph, for the first time admitted astronomers to his court and used to consult with the astronomers in all matters [2].

Meanwhile, some great astronomers in Iran such as: Ebrahim Alfarazy and some people of Nobakhti family had compiled some works in the field of astronomy, for example, Alfarazy was the first one who had established astrolabe in Islam and has written a book about it [9].

"Mamoon Abbasi was of the Caliphs who was interested in astronomy as well and tried to do its principles and in that case, he used to follow Sassanid kings like Ardeshir Papakan" [11].

3- The influence of Iranian music in Arabic

Arabs in Ignorance time, has nothing to do with music and song; and if so, it was according to his own violent nature and nomadic behavior; But after the advent of Islam, through commerce and intercourse with civilized nations such as Iran and Rome, that situation had changed. The main part of Arabic music after Islam, were based on Iranian music and teaching of Iranian artists. Musical instruments and the rules and customs of their use and also Iranian names and terminology became popular among the Arabs as well. In the book "History of the Eastern Music" is noted that: "Most advantage that Arabs had gained from Iranian music, was from its musical techniques, The word "Dastan" is Persian and Arabs had used this word for identifying the place of musician's fingers on lute and tabor and there are also ample evidences that Arabs had accepted Iranians tune for the tune of lute, therefore they had used two Persian terms "treble and bass" for the first and fourth strings"[12].

War music and it's used instruments for Arabs is derived from Iranian music and instruments; as Georgy Zeidan wrote: "Ignorant Arabs didn't have any musical instruments in this field [war] other than drums. But in the next eras, especially after Rashedyn Caliphs, by entrance of Persian and Roman valets, some styles of their culture had been adapted and their agents were allowed to use various drums and horns in their military [4].

Clearly, the cultural impact of sciences and technologies which were inserted into Arabic culture through scientific books, were much greater than the cultural influence which is arrived through the translation of music books.

The most famous Arabs' pre-Islamic musical instruments, included tambourine, with different types of circular and square, which were large or small [13].except those, Arabs had known fife, flute, and lute. Iranians lute, that had a wooden bowl had come from Iran to Heireh, were set as a typical replacement of local lute that had a leathery cover for its bowl [5].

-well-known Iranian of Arab music

In the early Umayyad Caliphate, the influence of Iranian music among Arabs was so seriously. At the caliphate time of first Moaviye (41-60 Hejira), Iranian captives those were working in Medina, strongly fascinated Arabs of Medina with their charming song. At the time of Abdullah Ebn-E Zubair, Iranian music had become propagated among Arabs of Mecca, and the first one who had learned Persian songs and had read Arabic poetry with the richness of Persian poetry, were an adept whose name was Saeed Ebn-E Mosajah. Abu Alfaraj Isfahani has noted that: "Abdullah Ebn-E Zubair had required some Iranian architects and builders to Mecca for the repairmen of Holy Ka'ba, which were damaged at his time. Iranian builders commonly used to sing as they were working. One of the advents named Saeed Ebn-E Mosajah who were inherently intelligent person, had heard their songs was so pleased and quoted them into Arabic. He later trained many students; Such as Abdullah Ebn-E Sarij, that tried to complement the music of Ebn-E Mosajah and had learned to play lute with Iranian style [14].

Philip Hata writes about him that: "He had brought the Iranian lute into the realm of Arabs and was the first person who used the stick movements for accurate recording of the songs in musical circles" [5].

Other celebrated Iranian musicians until the end of the first period of the Abbasid Caliphate, were some elders such as EbrahIm Moseli and his son Isaac, Ebn-E Mohraz and Nashit. The popularity of Iranian advents in music and their skills in singing and playing Iranian songs, led the Arabic musicians to follow them; including Tavis (9-11 Hejira), who have been considered as the father of song in Islam. He was from Madine and was the first person who song in Arabic accordance to tambourine.

4 -Iranian architecture and its influence on Arabs

Architecture is another science which were culminated by Iranian craftsmen and was highly regarded by Arabs invaders Arabs did not know any buildings but their tents and their wooden and muddy huts, and they were deprived of the knowledge architecture; when they encounter with the huge palaces and buildings of Sassanid kings, they were so surprised. There was any architect among Arabs, as Abdullah Ebn-E Zubair had invited Iranian architects to repair the Holy Ka'ba. Also, there are other traditions suggesting that Arab's leaders to build their palaces and buildings, asked Persian elders to help them. For example, as noted in Aghany, Moaviye applied a number of Iranian builders and workers to build his palace [14].

In the list of architects who had established Kufa in the year 17 Hejira, the name of an Iranian architect named Rouzbeh, can be seen [15] and there was a mosque in Basra, in which plan, the ruler of the city made an imitation of the plan of the palace of Persepolis and other Iranian temples [8]. Iranians also had a role in building the city Jeddah because it is noted on its building instruction that many width holes had been channeled around it; which were of Iranians military tactics and were not known for Arabs [16].

About the use of Iranian Engineers and Architects, Georgy Zeidan writes: "Arabs, used to apply Iranians and Romans engineers for construction and according to their Islamic Eastern taste, made some changes and innovations in those styles. As a result, a particular style of architecture had emerged, and was called Eastern or Arabic style"[4].

There are some evidences that suggest the influence of Iranian architecture in the Umayyad period. Even though according to Hata, the palaces of Umayyad Caliphs had mostly followed the styles of Byzantium and Sham. For example, one of them is the palace Kharit Almafjar that had been built in the period of the Umayyad Caliph Hisham Ebn-E Abd Almalek (105-125 Hejira) and the shapes and decorative designs and Iranian elements, especially paintings and figures of Sassanid palace at Ctesiphon, are used in that [17].

The construction of Baghdad is attributed to Mansur (158-136 Hejira), the second Abbasid caliph; it is said that by setting that place as capital, he wants to show that he is interested in Sassanid's political and cultural traditions. He's also the first Abbasid caliph, who had constructed buildings in Iranian style. Also in his time, one of the well-known gates of Baghdad was named Shiraz Gate. In front of his palace, there was a broad field that according to Sassanid kings, the ceremonies of Islam's Army were held there [8].

Another remarkable point is using Iranian tools and materials in architecture, including hard tiles of Kashan, which were decorated with beautiful flowers and artistic paintings and were exported from Iran to Dameshgh, and were used for interior and exterior decoration of buildings [5]. The industry related to manufacturing different kinds of glasses and applying them in Islamic, technical and artistic constructions, widely referred to local traditions of Sassanid glass workshops [6].

DISCUSSION

Arabs as an uncivilized ethnic derived their cultural and artistic manifestations from the people of Iran and Rome. Iran by possessing its own cultural and historical background, although had been defeated against the Arab Muslim in terms of political and military forces and had even accepted Islam warmly as a precious gift from God and his Prophet, soon afterwards the Iranians by the use of their massive cultural backgrounds could capture official tasks from victorious Arabs; And also Based on policies they occupied Arab's affairs. In the area of sciences and the arts and various industries, superiority and craftsmanship of Iranian were highly revealed. Arabs before Islam had had been deprived of any kinds of sciences and the arts and had knew a few things about horsemanship and warrior in basic levels. Although Islam had focused on wisdom and knowledge, Arabs were not interested in science and writing because they had believed that by having Quran, they had no need to any knowledge. This led to Iranians to use that opportunity to actively engage in the field of science and art, and to translate many Iranian books and prevent them from destruction. In the era of Umayyad caliphate, because of the racial discrimination and unfair policies of caliphs, the development of civilization was not very impressive but this decline was compensated during the Abbasid Caliphate and the situation of transferring Iranian culture into Arabic, were provided; as it can be said that Abbasid era, was the golden era of science progress in Islam. Almost all Iranian sciences were acceded to Arabic and Islamic culture during the same period. And after compliance with the principles of Islamic laws, were mostly accepted by Islam. In all areas, those were the Iranians who introduced various courses to Arabs and tried to teach others by writing and translating many books. However, among the various sciences, medicine and astronomy were the first sciences that had been accepted by Arabs, and many books were translated into Arabic in those fields. After that, the music and architecture and industries such as jewel and glass making were acceded among Arabs. After the entrance of those Sciences and Technologies, Many other Iranian customs had been acceded largely to the Arab and Islamic culture and because they did not contradict religious principles; so they had become religious remained in all aspects of people's life.

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