THE QUANTITATIVE CHANGES TREND OF IRANIAN SCHOOLS BUILDING FROM THE EARLY ISLAMIC CENTURIES UNTIL QAJAR ERA

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Abstract
Like any other piece of art indicating signs of past originalities, the Iranian architectural works are required to be recognized and introduced. From amongst the architectural subjects, schools have the most links in the most elegant formats with the past heritage, nature and environment and enjoy a certain importance. The important point concerning studying Iranian schools architecture is to recognize the trend of architecture continuance of these buildings, especially during Islamic era. From amongst the important factor in studying the continuity in schools architecture include quantitative continuity and number of schools built during each era, which shall be an effective guide in recognizing of the indicated values. Based on such type of analytical vision, studying quantitative continuity of building schools and number of the same during different post-Islamic eras until Qajar Era in Iran is the main context and purpose of this study. The generality of the study represents an analysis on the number and quantitative continuance of building schools during different eras of Iran Islamic architecture, beyond which, the quantitative trend of building and important cities in terms of number of built schools in each era are identified. This study is of historical-interpretation type and collection the data and conclusion are based on comparative studies conducted on different library and field resources and refining and choosing the most correct and reliable statistics from amongst the available information. In Conclusion, the number of schools in all the post-Islamic eras in Iran, the most important cities and eras in terms of quantity of building schools are determined and relationship between political importance of cities and number of built schools in them is observed. According to the aforementioned interpretations, this study shall clarify a documented role to plan in order to take benefit from the available information in an optimized manner.

Key words: Continuity, Iran, Islamic Era, quantitative, schools.

INTRODUCTION
Islam highly emphasize on learning. According to a narration from holy prophet of Islam (PBUH), the pen of scientists is superior to the blood of the martyrs (Amoli, 2012). Meanwhile, the Muslims were striving to learn based on their religious teachings; therefore, there was occurred a link and direct relationship between religion and science (Hillenbrand, 1994: 107). After entrance of Islam into Iran, flourishing the knowledge increased and several scientific and academic centers were established, which were in the beginning the continuance of the same tradition of holding discussion roundtables in the mosque (Soltanzadeh, 1985: 92); after mosque, school is one of the most important public urban buildings (Pirnia, 2004: 91-93). In Dehkhoda dictionary, the Persian word for school, i.e. madreseh (or madrasa in Arabic), has been explained as per the following: It is a place for teaching and being taught. Training center, class, primary school, high school; place for teaching; and place to learn sciences and techniques (Dehkhoda, vol. 44, 1957: 29); Schools have two main architectural areas of rooms and classes, which are sometimes accompanied with worshiping areas such as altar and nave-domed area. In this article those buildings are passed as Iranian schools which have the said two areas (rooms and classes) as academic areas.

Generally speaking, schools spatial-functional elements set include: entrance areas, court yard, rooms, classroom(s), mosque, library, janitor, light executive, water boy rooms and lavatories and in some big schools, bath (Akbari, 2011: 82). The general combination of schools area is in the form of a central courtyard, where the rooms and porches used to be located around it (Pirnia, 2004: 92).

Quantitative continuity of building Iranian schools and number of the same during different post-Islamic eras until Qajar era is the subject-matter of this study. Therefore, here in this article the changes trend of building schools and the factors affecting the quantitative change of such areas in Iranian Islamic architecture are studied. This study is of historical-interpretation type and different library and field studies have been used. Number and quantity of building the schools in each era are represented as detailed per city and quantitative change of building schools in each era as well as throughout the post-Islamic Iran are extracted based on the relevant bar charts and resulted statistics.
This study tries to answer these questions: how many schools were built during each era? Which eras and cities were the most important in post-Islamic Iran in terms of quantity of school building? And how was the quantitative trend of building schools during Islamic Iran era?

This study has been conducted through field and library studies and examining the history of buildings history. Whereas most of the indicative schools were built in the capitals of the sovereign dynasties and the important cities of their time, therefore, in this study statistical works have been completed based on the cases relating to the important cities of different historical eras such as Tehran, Isfahan, Qazvin, Tabriz, Mashhahd, Shiraz, Kashan, etc and in exceptional cases and concerning major schools, we shall also focus on other cities, as the case may be. Collecting data has been completed based on refining and choosing the most correct and reliable statistics from amongst the available information. Notwithstanding the considerable efforts made, considering the historical nature of the study and lack of sufficient information regarding the date or site of all buildings, some of them have been categorized as “other items”.

BACKGROUND STUDY
The field of Iranian schools and academic areas during Islamic era has been investigated by some of the architectural scholars. For instance, Pirnia in his book titled “An introduction to Iranian Islamic architecture” has introduced school to be included in the scope of Iranian Islamic architecture, while Soltanzadeh in his book titled “The History of Iranian Schools: from ancient era until establishment of Dār_Al_Fonoon” has expressed the history and features of all the existing schools or those talked about in the historical inscriptions. Meanwhile, Sami Azar in “The History of Iranian Schools Developments” analyzes Iranian schools socially and historically. Hillenbrand has studied school like other Islamic architecture elements in all Islamic lands and Mulla Zadeh in “schools and religious buildings” has named all the existing Iranian schools in the form of an encyclopedia. Meanwhile, in an article titled “mosque-schools of Tehran” Soltanzadeh introduces these buildings in Tehran. On the other hand, Akbari under the supervision of Dr. Javad Neyestani in the 2-volume book titled “Architecture of Qajar Religious schools in Tehran and Qazvin” investigates the background and analysis of architecture of these two cities schools during Qajar era and Kiani in the book titled “The History of Iranian art of architecture during Islamic Period” has elaborated the emergence and historical changes of art of architecture during Islamic era. Meanwhile, certain books such as Ibn Battuta Travels, Farsnameh Naseri, The History of Neyshabur and Isfahan Dar-ol elm-e Shargh books have been used as the other references for this study. Meanwhile, these references have been used in extracting statistics of schools and information relating to the time and location of building the same.

HISTORICAL CHANGES OF SCHOOLS AND ACADEMIC AREAS IN POST-ISLAMIC IRAN
Before Islam, education and studies were exclusively dedicated to the nobles, princes, men of royal court, Magi and merchants; and academic centers, especially during Achaemenid Era, were placed besides castles, sovereign centers, fire temples and locations far from commercial centers. However, after emergence of Islam, education was taken out to be exclusive to the nobles and more people, more or less, could study in secondary and high levels. These schools were mainly situated around public mosques, bazaars (Markets), residential neighborhoods, and sometimes square (Akbari, 2011: 66).

Before focusing the schools architectural areas, brief knowledge on the architectural roots of these schools shall be given. The architectural roots of post-Islamic Iran schools may definitely be looked for in the relevant Iranian origins. Available information on this group of schools, which were mainly built in Eastern Iran, is quite limited and based on presumptions. It seems that there are three probabilities concerning the Iranian schools architectural roots:

1. Bartold considers the school as related to the Vihara of Buddhists in Central Asia and Afghanistan (Bartold, 2007: 52).
2. Godard (André Godard 1881-1965) suggested the primary Iranian school architecture as the sample Khorasani mansion (Hillenbrand, 2007: 216).
3. Sami Azar associates the potential origin of schools to the architecture of the older mosques. According to this theory, mosques are also seen as the primary origin of formation of early schools (Sami Azar, 1997: 93- 94).

Generally speaking, post-Islamic historical eras of Iranian schools building are classified into 6 eras (1- Early Islamic centuries, 2- Seljuk and Khwārazm-Shāhī era, 3- Ilkhanid era, 4- Timurid era, 5- Safavid, Afshari and Zandi era, 6- Qajar era). In fact, those schools which still survived are those built after Mongol invasion and the older schools are known to us merely through written references or archeological studies. In the following the social and historical conditions and schools building trend of each of the above mentioned eras are given.
Early Islamic Centuries (since the beginning to the second half of 5th century Hijri)

Since the era of Prophet of Islam (PBUH) until the 3rd century Hijri, mosque used to be seen as the first and most important hub for Muslims meetings, and teachings (Akbari, 2011: 52). Teaching in mosques was based on reading and comprehending Quran and also teaching the manner of conducting religious duties (Maktabi and Hanifi, 2005: 58). During Abbasid Era, and as ordered Ma’mun the Caliph in Baghdad, Bayt al-Hikmah (i.e. house of Wisdom) was established which was more focused on philosophy, mathematics and natural sciences. It was a hub for social gathering of scholars and scientists and especially some competent translators who drawn up almost all the Greek scientific and philosophical books for the Islamic world (Dorrany, 2005: 58).

2nd century Hijri accompanied with political changes in Islamic word and especially in Khorasan in Eastern Persia, from where some Iranians emerged who confronted the sovereign manner of Abbasid (Kiani, 2011: 40- 41). Certain local dynasties such as Saffarid, Taherid, Samanid, Alevis and finally Ziyarid and buyids were established in different regions of Iran (Kiani, 2011: 41). It seems that until the late 3rd century Hijri there were no independent places in Iran except for Gondi Shapour University to study in the secondary and high levels in the fields of sciences and literature; in fact, the idea of establishing Iranian schools during Islamic era was posed when Iran gained an independent existence (Akbari 2011: 57). Gradually and through development of Islamic knowledge, academic areas were separated from mosques (Kiani, 2011: 9). During this era, considering the high number of students, contradiction between religious and academic functions of mosques and the problems raised by the same as well as sometimes, posing logical knowledge which was in contradiction to the mosque atmosphere, an independent building was considered for academics and school area was formed in Islamic architecture (Sami Azar, 1997: 87-89).

No significant building has survived from the early Iranian Islamic schools. Long years and Mongol and Timur invasions have resulted in total destruction of some of the big cities and academic centers of early Islamic eras such as Neyshabur and Rey.

Concerning establishment of early schools, Petrushevskii says that the special type and sample of Islamic theological schools were established in 4th century Hijri in the eastern part of Islamic Empire, i.e. Khorasan and was further developed in the west of the Empire (Petrushevskii, 101: 1975). Therefore, school emerged with individual and unofficial features in Khorasan (Akbari, 2011: 58). Number of schools built in each city during this historical era can be seen in Figure 1. These statistics have been achieved through studies and comparative studying the previously mentioned references and through refining and verification of the same.

The following can be concluded from observing Figure 1:
1. Totally (33) schools were built in Iran territory during this era.
2. The most important sovereigns of this era in terms of number of built schools are Ghaznavid, Samanid and Buyids, respectively.
3. The most important cities in terms of quantity of building schools in this era include Neyshabur, Bukhara, Ghazni and Sabzevar.
4. The said cities were also the capitals and important sovereign centers of the same era.

From Seljuk to Mongol Invasion Era (middle of 5th century Hijri till 7th century Hijri)

A new dynasty, namely Seljuk, came to power in Eastern Persia in middle of 5th century Hijri, which survived for about 150 years. This era is one of the most brilliant eras for the innovation and development of different Islamic industries and arts (Kiani, 2011: 4). In terms of culture, emergence of clerics and men of knowledge and development of cultural centers and universities, Seljuk era is considered as one of the most brilliant historical eras of Iran in terms of quantity (Akbari, 2011: 45).
During this era, the kings (Shahs), ministers (Viziers) and governors of provinces established several schools to promote their religions and confronting the propaganda of their opponents, which is in fact seen as the scientific features of this era (Kassai, 1979: 19). For instance, through the supports of Khwaja Nizam al-Mulk (Abu Ali Hasan Ibn Ali Tusi) the wise minister of Alp Arslan, several schools were built in major Islamic cities such as Baghdad, Rey, Neyshabur and Jorjan (Kiani, 2011: 9). In fact, Nizamiyeh schools were considered as the followers of evolution trend of certain schools which were in fact separated from mosques (Akbari, 2011: 45). Emergence of such schools is seen as the origin of a big change in the history of Iranian academic centers. The feel of need for activation Sunni religion, increasing confrontation between religious and academic functions of mosques and relative evolution of academic syllabus were the main three reasons of these changes (Sami Azar, 1997: 87-89).

Superior and long-term designation of Khwaja Nizam caused that some of the wealthy people to follow him and therefore establish schools in the other cities as well; in a way that within a short while almost all the Iranian lands had schools (Almassi, 1998: 361) and religious schools were developed throughout the eastern areas of Islamic empire. Often these schools were established in certain major cities such as Neyshabur, Isfahan, Yazd, Marv, Kashan, Kermanshah, Khaf, Baghdad, Rey, Qom, Balkh, Herat, Jorjan, Hamedan, Mosul and Varamin and became quite famous (Safavi, 2004: 49). No Nizamiyeh school has survived, and merely Khargerd School may be named, for which the Kufi carving of the same mentions the name of Khwaja Nizam and therefore, it is possible that it is one of Nizamiyeh schools (Figure 2). Number of schools built in each city during Seljuk and Khwārazm-Shāhi eras can be observed in Figure 3 and Figure 4.

Figure 2: Khargerd Nizamiyeh school (Source: Pirnia, 2004: 97)

![Image of Khargerd Nizamiyeh school]

Figure 3: Schools built during Seljuk era (Source: Authors)
The following can be concluded through observing Figure 3:
1. Totally (166) schools were built in Iran territory during this era.
2. The most important cities in terms of quantity of building schools in this era include Neyshabur, Baghdad and Rey which were also the capitals and important sovereign centers of the same era.

![Khwārazm-Shāhíd](image)

Figure 4: Schools built during Khwārazm-Shāhī era (Source: Authors)

The following can be concluded through observing Figure 4:
1. Totally (13) schools were built in Iran territory during this era.
2. The only major city in terms of quantity of building schools in this era is Shiraz.

Ilkhanid Era

In 616 AH, Genghis Khan invaded Persia and returned to Mongolia in 619AH after destructing Iranian cities and defeating Sultan Jalal Al-Din Khwārazm-Shāh's army (Navaei, 1987: 28). In 653AH another invasion from the Mongols commenced by Hulagu, one of Genghis Khan's grandchildren (Kiani, 2011: 55); following of which, knowledge and sciences declined and also many older achievements and written works were demolished (Akbari, 2011: 48). However, within a short while the Molgols accepted the culture and traditions of the defeated nation and even became as the supporters of Islamic art and artists (Kiani, 2011: 4). Therefore, revival of Islamic Iranian culture commenced and Hulagu Khan resided in Iran and established Ilkhanid dynasty and further showed his interest in development of sciences (Kiani, 2011: 56).

![Ilkhanid Era Map](image)

Through establishment of Ilkhanid dynasty in Iran, soon their major sovereign cities such as Tabriz, Baghdad, Soltaniyeh and Isfahan became as the social hubs for artists (Kiani, 2011: 4). Those Iranian nobles and clerics penetrated into Mongol and Ilkhanid royal court caused the survival of clerics and reconstruction of academic centers to some extent, inter alia, Khwaja Nasir al-Din al-Tusi, the wise minister (Vizier) of Hulagu Khan (Aghazadeh, 2003: 15). With a slight difference, architecture
of Ilkhanid era is the continuance of architecture of the previous era, i.e. Seljuk (Kiani, 2011:56). Number of schools built in each city during this era can be observed in Figure 6.

The following can be concluded through observing Figure 6:
1. Totally (66) schools were built in Iran territory during this era.
2. The most important cities in terms of quantity of building schools in this era include Yazd, Shiraz, Tabriz and Isfahan.
3. Yazd, Shiraz, Tabriz and Isfahan were also the capitals and important sovereign centers of the same era.

Timurid Era
Relative peace of Ilkanid era did not last long; in 783AH, Timur invaded Iran and again Iranian cities faced murder and loot. After Timur death, Shahrukh came to power in 807AH (Kiani, 2011: 57). During his sovereign, Herat became the brilliant hub of art and literature. Qavam al-Din Shirazi, the genius engineer and architect, enabled Shahrukh to build excellent mosques, schools and other buildings within his territory (Nasiri, 2005: 152-154). During Timurid era, the number of schools increased notwithstanding Amir Timur invasion, as the Timurid kings and even Teymour himself were supporters of science and knowledge and strove to develop the same (Akbari, 2011: 59). During Timurid era, school was completely developed as the most major religious sciences educational institute (Golombek, 1995: 83). Khargerd Ghiyathiyya School is one of the most important and beautiful buildings of this era, situated in Khoarasan. It was built in 848AH by the order of Ghiyath al-Din Pir Ahmad Khafi, the minister (Vizier) and Sultan Shahrukh Timuri and by the best architects of that era, i.e. Master Qavam al-Din Shirazi (Kiani, 2011: 82) (Figure 7). Number of schools built in each city during this era can be observed in Figure 8.
The following can be concluded through observing Figure 8:
1. Totally (83) schools were built in Iran territory during this era.
2. The most important cities in terms of quantity of building schools in this era include Herat, Yazd, Isfahan, Mashhad, and Neyshabur.
3. Herat, Yazd, Isfahan, Mashhad, and Neyshabur were also the capitals and important sovereign centers of the same era.

Safavid Era
In early 10th century Hijri, Safavids came to power in Persia and chose Tabriz, Qazvin and Isfahan as their capitals, respectively (Kiani, 2011: 4-5); During Safavid era, Religion became the basis for national unity and all the other factors, especially education were affected by that (Sedigh, 1975: 264). The number of religious schools increased during this era, number of religious knowledge students multiplied and competent people all started studying religious knowledge, and some big clerics such as Sheykh Hurr Ameli, Sheykh Bahaei, Mirdamad, Mulla Sadra Shirazi, Mulla mohsen Feyz Kashani and Allameh Majlesi all emerged (Sedigh 1975: 265). Evliya Çelebi, one of ottoman travelers who visited Tabriz in middle 11th century Hijri, mentioned the number of its schools as 47 (Çelebi, 1959). Chardin mentioned the number of Isfahan schools as 57 (Chardin, 1956). Also, more or less, the same situation was seen in the other major cities (Soltanzadeh, 1985: 256). Of the most important schools of this era include Kasegaran, Jaddeh Bozorg and Jaddeh Koochak, Nimavard, Mulla Abdollah and Chahar Bagh (Isfahan), Khan (Shiraz), Abbasgholi Khan (Mashhad) and Ganjali Khan (Kerman). The most important and beautiful school of this era is Chahar Bagh School, built during Shah Sultan Hossein Safavi in Isfahan, funded by the king's mother (Kiani, 2011: 111) (Figure 9). The other beautiful school is Khan’s School in Shiraz, built by Imam Qoli Khan, son of Allahverdi Khan, the governor of Shiraz, for Mulla Sadra, the big Shiite cleric (Pirnia, 2004: 94). Also Zandi and Afhari eras lack any significant elements in terms of educational and cultural policy making aspects (Akbari, 2011: 51) and merely a few mosques and schools were built, of which the most important one is Vakil Mosque (Shiraz) (Aghazadeh, 2003: 19). At the end, it can be pointed out that the riots and lack of personal and social security during the last years of Safavid and Nader Shah’s era and then the decline occurred between Nader Shah’s death and Karim Khan Zand sovereign and thereafter, another decline occurred between Karim Khan’s death and establishment of Agha Mohammad Khan’s power, not only caused economic and political problems, but also high damaged the Iranian culture and art (Akbari, 2011: 52). Number of schools built in each city during Safavid era as well as Afshari and Zandi eras can be observed in Figure 10 and Figure 11 respectively.
The following can be concluded through observing Figure 10:

1. Totally (132) schools were built in Iran territory during this era.
2. The most important cities in terms of quantity of building schools in this era include Isfahan, Shiraz, Mashhad and Tehran.
3. Isfahan, Shiraz, Mashhad and Tehran were also the capitals and important sovereign centers of the same era.
The following can be concluded through observing Figure 11:
1. Totally (6) schools were built in Iran territory during this era.
2. The most important cities in terms of quantity of building schools in this era include Kerman, Shiraz, Yazd, Isfahan and Qazvin.
3. Kerman, Shiraz, Yazd, Isfahan and Qazvin were also the capitals and important sovereign centers of the same era.

Qajar Era
Like Safavid, Qajars were from amongst the non-Iranian immigrant tribes who came to power by taking benefit from their power and their allies. Agha Mohammad Khan, the founder of this dynasty, used the weakness of Karim Khan’s successors and turbulent situation of Iran and soon came to power throughout Iran. During this era, although religious schools failed to have the flourish of Safavid era, but they were not out of flourish. However, whereas Tehran was the capital, it enjoyed a superior position in comparison to other cities. On the other hand, Isfahan schools which used to be at the peak of power and glory during Safavid era were not considered during this era (Soltanzadeh, 1985: 259-260). From amongst the most important schools of this era include Sadr-e Bazaar, Sadr-e Khaju, Sadr-e Paghaleh, Rokn Al-Molk, Mirza Mehdi and Seyed School-Mosque (Isfahan), Memarbashi, Moayer Al-Mamalek, Filsouf Al-Doleh, Marvi and Sepahsalar (Tehran), Salehiyeh and Sardar (Qazvin), and Agha-Bozorg and Soltani (Kashan) (Figure 12). Number of schools built in each city during this era can be observed in Figure 13.

![Figure 12: Soltani school, Kashan (Source: Kiani, 2014: 153)](http://spaj.ukm.my/jsb/index.php/jbp/index)

![Figure 13: Schools built during Qajar era (Source: Authors)](http://spaj.ukm.my/jsb/index.php/jbp/index)

The following can be concluded through observing Figure 13:
1. Totally (98) schools were built in Iran territory during this era.
2. The most important cities in terms of quantity of building schools in this era include Tehran, Qazvin, Isfahan, Astarabād, Tabriz and Semnan.
3. Tehran, Qazvin, Isfahan, Astarabād, Tabriz and Semnan were also the capitals and important sovereign centers of the same era.
Conclusion
In order to conclude the discussion and answer the study questions, we have concluded the entire data and statistics of the previous figures in Figure 14 to Figure 16, so that clear results on the quantity of building Iranian schools in post-Islamic era and its trend can be achieved. In Figure 14 the schools built in each city in the important post-Mongol eras have been compared. These eras are important as pre-Mongol schools are almost totally demolished and all the survived buildings are relevant to the post-Mongol era. Meanwhile, in Figure 15 and Figure 16 we concluded the total schools built in each city detailed as per each era.

Figure 14: Comparison of schools built in each city in the most important Post-Mongol eras (Source: Authors)

Figure 15: Total schools built in each city throughout Islamic era (Source: Authors)
By observing the above bar chart and responding the questions of this study the following can be concluded:

1. Totally (596) religious schools have been built in all the post-Islamic eras until the late Qajar era.
2. The most important cities in terms of quantity of building schools during Post-Islamic Iran history include Isfahan, Shiraz and Neyshabur, respectively.
3. Isfahan is the most important city in terms of quantity of building schools Post-Islamic Iran history, which is associated to the fact that Isfahan has been capital and well-considered during different eras.
4. The most schools were built during Seljuk (166), Safavid (132) and Qajar (98) eras.
5. A strong relationship is observed between political importance of cities and number of built schools in them. In other words, the highest number of schools were built during post-Islamic Iran in cities which are long been nominated as capitals and/or major sovereign centers.

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