

Principal Periods in Evolution of Iranian Architecture

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Abstract: While most of architects know well history of styles in European architecture, traditional architecture of peoples of other continents is still known to few, except the briefest so called “tourist” information. Popularization of traditional people’s architecture both in spheres of decoration and climat-control-the search of the optimal “third skin” requires from modern architects better knowledge of the history of architecture in different regions of the world. This article describes the principal stages of evolution and history of shaping of Iranian architecture from ancient Persia till modern Iran. Seven principal historical periods with their specific architectural styles are presented: *Parsi, Parthi, Khorasani, Razi, Azari, Esfaghani and Enghetat*. The table presents the periods in historical evolution of Iranian architecture with relation to époque, historical period, style features and examples of architectural masterpieces. First two styles in this table (*Parsi, Parthi*) belong to preislamic period which has laid the foundation of all the following history of Iranian architecture. This article describes specific features of architecture of these two styles, all following Islamic styles (*Khorasani, Razi, Azari and Esfaghani*) and modern architecture-*Enghetat*. In this article author combines the existing achievements with results of his own studies concerning the relations between culture, religion, tradition and architecture.

Key words: Iranian architecture • History • Stages • Architectural evolution • Tradition • Styles

INTRODUCTION

One of principal morphing factors in the architecture of any country is the historical tradition. To form a correct image of Iranian culture we should know the principal stages of evolution of architecture.

This country is a direct descendant of rich cultural traditions of ancient Persia boundaries of which extended from Mediterranean to Indian Ocean. Scales of this state impressed the imagination-it included most of modern states whose title ends with *-stan*, states of modern Caucasus and many others.

In studies of architecture of some country knowledge of periods of its historical development is important. Despite this aspect has already been studied by both Iranian and foreign historians, there is no whole system of study of scientific and methodical factors of evolution of culture and architecture of Iran yet. As we show in the following article, development of Iranian architecture is directly connected with emergence and evolution of Iran as a state (Fig. 1).

Common Characteristic: History of Iran is full of glorious rises, falls and renaissances, people’s unrests and foreign invasions. One may mention:

- State of Achaemenids-VI-IV cent. B.C.;
- State of Seleukids-IV-III cent. B.C.;
- State of Eshkansas-III cent. B.C.-III cent. A.D.;
- State of Sassanids-III-VII cent.;
- Period of Persian renaissance (Omeyanids, Abbasids, Takharids, Samanids, Bunds)-VII-IX cent.;
- Dynasties of Ghaznevids and Seljukids-X-XII cent.;
- Rule of mongols-X-XII cent.;
- Dynasty of Timurids-XIV-XVI cent.;
- Dynasty of Sefevids-XV-XVII cent.;
- Dynasty of Afsharians-XVII-XVIII cent.;
- Dynasty of Qajars XVIII-XX cent.;
- Dynasty of Pehlevi-XX cent.;
- Period of modern history of Iran (Islamic republic) [3], (Table 1).



Fig. 1: Ethnic map of Iran

To explain the specific of evolution of Iranian architecture we need at least a brief characteristic of the principal historical periods of the formation of the Iranian state.

There are four main trends, otherwise named styles, in evolution of Islamic architecture:

- Southern (Egyptian) style finds its roots in ancient Egyptian architecture and is mostly widespread in Northern Africa (Egypt, Sudan).
- Central (*Shami*) style inherited the traditions of Byzantine. It is widespread at the territory of Syria,

Palestine, Lebanon, partially Turkey and Saudi Arabia.

- Western (Mauritian) style is found in the architecture from Algeria to the southern Spain. This style, quite popular in the world architecture, can be divided into two sub-styles: Northern-African (Tunis, Algeria, Morocco) and Andalusia.
- Eastern (Iranian) style. This is the most renowned style of Islamic architecture. It is widespread from Iraq, Iran, Afghanistan, Pakistan, Uzbekistan, Turkmenistan till India and Indonesia.

Table 1: Periods of evolution of Iranian architecture [10]

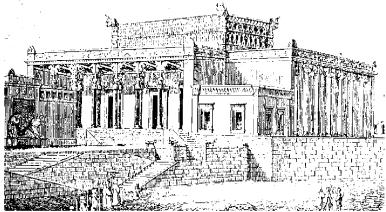
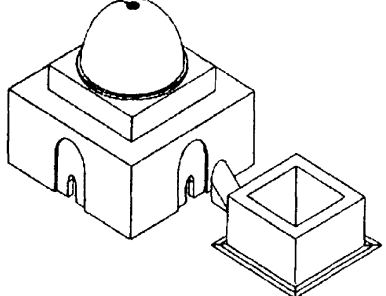
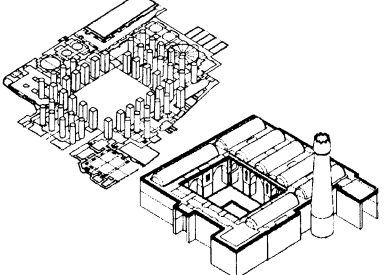
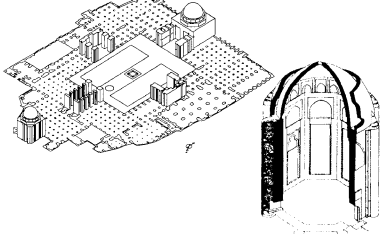

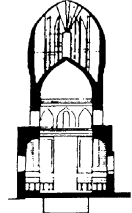
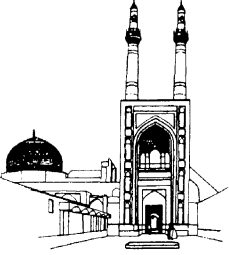
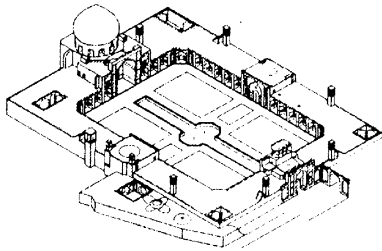

Époque	Historical period	Archi-tectural style	Materpieces of the époque
Midia, Ancient Persia	Media (VIII-VI cent. B.C.), Achaemenids (VI-IV cent. B.C.), Seleukids (IV-III cent. B.C.)	Parsi	 Palace of Apadan, Shiraz
Parthia	Eshkan (III cent. B.C.-III cent. A.D), Sassanids (III-VII cent.)	Parthi	 Atashkade Niyaser, Tanghave
Arab Caliphate	Islamic conquest (VII-IX cent.), Takharids (IX cent.), Samanids (X-XI cent.)	Khorasani	 Mosque-Djame, Mosque-Djame, Fahradj Ordestan
Early middle ages and transnational empires	Ghaznevids (X-XII cent.), Seljuk Empire (XI-XII cent.)	Razi	 Mosque-Djame, Esfahan
			 Mausoleum Kharghan, Kazvin
	Ilkhans (XIII-XIV cent.), Timurids (XIV-XVI cent.)	Azari	 Mausoleum Amir Ghor, Samarqand
			 Mosque-Djame Yazd

Table 1: Continued

Late middle ages, new and modern history	Sefevids (XV-XVII cent.), Afsharians (XVII-XVIII cent.), Zends (XVIII cent.)	Esfahani	
			Madrasse Imam, Kashan
	Qajars (XVIII-XX cent.), Pehlevis (XX cent.), Islam republic (XX cent.-present days).	Enghetat	
			Central library, Tehran.

History of this eastern style is interconnected with the growth of Iranian state [1].

Iran is one of the oldest countries of the world. History of Iran used to be considered from the VI c. B.C. when the tribes dwelling at the territory of Iran were united by the king Cyrus II into the kingdom of Achaemenids. Still there existed yet earlier states-Elam (4th-3rd millennia B.C.), Media (IX-VI cent. B.C). Iranians themselves do not use title "Persia". It is inherited from ancient Greeks who used in relation to the whole empire the title of a single province Fars (Pars).

State of Achaemenids stretched from the banks of Nile to Indus and was overthrown in IV cent. B.C. by Alexander of Macedonia. In the middle of the III cent. B.C. there emerged a new state-Parthia, which successfully dared the Roman Empire. In III cent. A.D. kingdom of Sassanids which was conquered by Arabs in VII cent. and included into Arab Caliphate. In XI, XIII, XIV cent. the country suffered from invasions of Turks, armies of Tchinghis-Khan and Timur. New renaissance took place already during the rule of dynasty of Sefevids (XV-XVIII cent.).

The new history of Iran starts in the époque of late Middle Ages. Dynasties of Sefevids, Afsharians (XVII-XVIII cent.), Zends (XVIII cent.) and Qajars (XVIII-XX cent.) strengthened the country and protected the growth of arts [2],[3],[6],[9],[10].

History of Iran including Iranian architecture is traditionally divided into two principal periods: preislamic (before VII cent.) and Islamic. Indeed, islamization of Iranian society by Arabs in VII-VIII cent. Led to fundamental changes of its cultural, social and political structure. However despite introduction of Islam older

spiritual values did not disappear. They caused strong influence at new growing culture, that some authors name Iranian Islam. Many preislamic traditions and rituals are still kept yet in modern Iran. For fourteen centuries after Arabic conquest different rulers tried to revive ancient traditions. Last time such efforts were undertaken in last century in the reign of Pehlevi dynasty [7].

Modern and traditional trends are mixed in the culture of the countries of Asia. Without knowledge of the history it is impossible to build a worthy modern society.

Thorough Characteristic of Periods and Styles: Here we consider the specific features of the styles of Iranian architecture.

Media and Persia. History of Iranian state is traditionally researched since the founder of Achaemenids' dynasty (550-330 yy B.C.) Cyrus II who united two largest two largest Indo-Iranian tribal unions-Medes and Persians. Yet earlier, before the emergence of the Persian state, Medes reached high level of political organization and conquered in 612 B.C. Nineveh-the capital of ancient Assyria.

Cambyses II and his followers continued the extension of the Persian state. In this period its borders included Minor Asia, Egypt and the valley of Ind. The most important historical and archeological monuments of the époque of Achaemenids are the ruins of their capital Persepolis, known in Iran as Tekhte-Jamshid, tomb of Cyrus II in Pasargadae and the inscription of Darius I on mount Behistun. Achaemenids widely used the skills of the conquered peoples and therefore were influenced by high cultures of Mesopotamia, Egypt and India. It was one of the first multi-national states [2,3].

Almost no literature remained from the époque of Achaemenids, because Alexander of Macedon ordered to translate all Persian sources to Greek and Coptic and to destroy the originals.

The Style of Parsi:

- Civil buildings usually had square-shaped plans, high columns, painted walls;
- Valuable and durable materials (stone, wood, cloth) were widely used in interiors of sacral buildings;
- Buildings were usually situated independently in the center of the square, often using the relief.
- Roofs built with column-and-beam or false dome systems.

Hellenistic and Parthian periods: After the collapse in about 330 B.C. the state of Achaemenids and till the rise in 224 A.D. the state of Sassanids (New Persian Kingdom) the country suffered the period of political and cultural weakness and instability. Since the conquest of Alexander and till the emergence of the Parthian kingdom in 248 B.C. most of Iran was ruled by the Greek dynasty of Seleukids. In this period Greek language and culture became widespread in Iran especially in higher layers of society. Migrants from Greece in reverse felt the influence of Persian culture, although this took place in regions where the Greek communities were not large and self-sufficient enough. In the most original form Persian culture survived only the south of the country-in the province Parsa-the heart of older Achaemenids' kingdom. Hellenistic culture greatly influenced greatly the evolution of the architecture of ancient Iran, especially in the sphere of sacral and common buildings.

Then the country entered the Parthian kingdom. Parthian kings from the dynasty of Arshakids declared themselves the descendents of Achaemenids. Despite Arshakids were influenced by Greek culture they managed to cease the rule of Greeks, to protect the country from the nomads' raids in the East and from Romans' invasion in the West.

Iranian people's heroic epic is believed to have emerged in this time, for example the legends of Rustam, which is considered the Iranian reflection of the image of Hercules.

The kingdom of Sassanids: During the reign of Arshakids Persia fell into the state of feudal separation, ruled by a number of lesser princes. In III cent. A.D. Ardashir I managed to restore ancient borders of Persia, then Shapur

I really extended boundaries of the state reaching the western areas of China. In the following centuries Sassanids were forced to wage continuous wars on Rome, then on Byzantine.

In the rule of Sassanids cities grew and the central power was reinforced. Also they introduced Zoroastrism as an official religion, four-leveled system of administrative division, stratification of the society. Also Christianity appeared in Iran in this period.

The Style of Parthi:

- Usage of cheaper local materials (clay, wood);
- Introduction of domes and arches, arcades and domed in dwelling houses were built mostly of clay.
- Introduction of internal courtyard (*hayat*);
- Introduction of eyvans in sacral buildings;
- Shape of the plan is mostly a stretched rectangle.

The next three styles (Khorasani, Razi and Azari) demonstrate the clash of cultures and the evolution of tradition of Islamic architecture.

Features of the architecture of Arab Caliphate and feudal separation.

Local dynasties and Persian renaissance. While Arab Caliphate extended its borders, control the capital (Damascus by Umayyads, Baghdad by Abbasids) over the provinces weakened. That led to rise of local dynasties in Iran, including Takharids and Saffarids in Khorasan. In the end of IX cent. Samanids spread their control from Zagross Mountains till Aral Sea.

Ziyarids ruled the shores of Caspian Sea and were known as patrons of literature, architecture and art. The monument to sultan Amir Shams ul-Ma'ali, also renowned as an arab-language writer, built in 1007 in Gonbad-e Qabus is famous as the tallest brick structure in the world. In the time of Ziyarids renowned Abu Ali ibn Sina lived and wrote in Bukhara.

The Style of Khorasani:

- Mass dwelling construction in growing cities, simplified architectural forms.
- Stretched in plan rooms with cylindric or domed ceilings.
- Importance of orientation in Islamic sacral buildings (Kibble-the direction to Mecca).
- High attention to the aspects of urban planning.
- Leveling of living conditions for different social strata according to canons of Islam.

- Low attention to interior decoration-absence of sculpture and painting.
- Colonnades surrounding prayer halls (*shabestan*).

Dynasties of *Ghaznevids* and *Seljukids*. In VIII cent. nomadic Turk tribes penetrated the Iranian plateau. Since settling they were influenced by Irano-Islamic culture and their noble families followed the lifestyle of Sassanids. Ali-Teghin became the leader of the state with the capital in Ghazni in 962 and founded the dynasty of Ghaznevids. Their control was spread over the territory from India to Mesopotamia. The court of Ghaznevids attracted poets and scientists, including Ferdowsi-the creator of well-known epic *Shakhsnameh* (The book of Kings).

In XI cent. king of Oghuz-Turks Toghrul-bek enforced the caliph of Baghdad to recognize him as a sultan. Despite being Turks themselves, Seljukids belonged more to Iranian culture and introduced it all over their empire: in Turkey, Afghanistan and Transcaucasus. Rule of Seljuks brought growth of architecture with hundreds of mosques, madrasas, palaces and other civil buildings erected.

The Style of Razi:

- Development of national architecture.
- Great attention paid to durability of buildings and their area and space composition.
- Buildings with one dome and four eyvans.
- Combined complexes (caravan-saray-madrasa-mosque etc.).
- Evolution of *shabestans*, development of their plans and shapes.
- Double-layered domes with the layer of air.
- Interiors and exteriors decorated with ornaments.

The Rule of Mongols and Timurids: In 1219 hordes of Tchinghis-Khan conquered and desolated Khorezm, Bukhara, Samarkand, Balkh, Merv and Nishapur. In 1256 his grandson Hulagu-Khan invaded Iran and in 1258 conquered Baghdad. After the return to Iran he accepted the title of ilkhan. Despite the losses of conquest, ilkhans respected local cultures and religions and following political stability brought its fruits. The rule of ilkhans is marked with the development of literature and architecture, astronomy and medicine.

In the end of XIV cent. Uzbek emir Timur conquered the main territory of Iranian plateau and lands attaching the Mediterranean, his descendents managed to keep the empire of Timurids for the next century. The main centers

of culture in XIV-XV cent. were Samarkand and Herat. Herat school of miniatures concentrated around Kamaledin Bezhad became famous. Also are renowned works of poet Shamseddin Hafiz in Shiraz and astronomer Ulugh Beg in Samarkand.

The Style of Azari:

- Construction of huge complexes (mosque-madrasa etc)
- Development of radial and rectangle street nets in city planning.
- Clear vertical and horizontal divisions of elevations.
- Introduction of compositions with large eyvans and symmetrical minarets.
- Wide use of mosaics and reliefs in interiors.

Dynasty of Sefevids: In 1502 Ismail I descendent of sheikh Sefi ad-din Iskhak gathered around himself seven Turk tribes, accepted the title of shah and became the first monarch from the Azerbaijan dynasty of Sefevids. It was the last rise of military and political power of Iran, a period national unity and economical growth. Despite their Iranian origin Sefevids were fond of Turk fashions and did nothing for development of original Iranian culture. Esfahan became the most important cultural center of the region and gave its name to the époque.

Esfahani:

- Huge attention is paid to urban planning, city centers develop around principal mosques with rectangular webs of streets in surrounding districts.
- Large civil complexes including sacral buildings and bazaars.
- Development of structural systems, tectonic images in architecture.

Modern architecture of Iran-*Enghelat* is influenced by contemporary world architecture.

Dynasty of *Qajars* ruled since the end of XVIII cent. till the First World War. Inability of shahs to create national army, centralized government and unified taxation system lead to the weakness of country and following lost of many provinces. Iran became the arena of imperialist competition of Great Britain and Russia. Occupation by the forces of Entente led to instability of power and numerous local conflicts and uprisings. In 1921-1925 yy. Reza-khan Pehlevi overthrew Qajars and persuaded medjlis to recognize him as a new shah. In the following

decades Pehlevi is balanced between various world powers with different success. They managed to keep independence of Iran but were unable to prevent occupation during the Second World War. In post-war years rise of national movement lead to nationalization of some establishments with foreign capital and to clear position of neutrality in the "Cold War".

Modern history of Iran is considered from 1979-since the proclamation of Islamic republic. Today as an equal partner of the world society Iran follows the path of progress, protecting its unique face with its own traditions, its culture.

Specific features of modern architecture of Iran are common with contemporary world one. Unfortunately national traditions are ignored, despite they were shaped by a number of natural, climatic, religious and cultural factors.

The Style of Enghetat (Moaser):

- Influence of world, especially West-European culture and architecture at functional and structural organization of architecture.
- Functional methodic of design.
- Industrialization leads to introduction of new types of buildings (industrial objects, railway stations, office buildings etc.) [1],[2],[4],[5],[10]. (Table 1).

Summary:

- Despite the large quantity of publications concerning culture and architecture of Islamic countries and particularly Iran no whole picture of evolution of cultural traditions has been created yet.
- Architecture of Iran is ancient. It has passed a long path and was influenced by many cultures from Indian to Egyptian. Architectural traditions of many peoples created the unique styles of arts and architecture.
- For many centuries architecture of Iran developed as part of culture of various empires that included Iran in different times, also in the flow of transnational culture of Islam.
- Cities were the centers of medieval culture of Iran. Cities were planned concerning many factors including orientation along the axes north-south and east-west. Most of the cities had one of two types

the street net: rectangular or radial. Since the age of Arab Caliphate cities were divided into districts, settled according inhabitants' professions.

- Centers of cities and districts were the bazaars often with mosque and other sacral and civil buildings-many of them have survived till present days preserving the traditions of Iranian architecture.
- Traditional architecture is reach with the means of climat-control of interiors and courtyards, including:
- Compact shapes of housing, deep rooms with high domed ceilings.
- Shading the areas using the shapes of buildings.
- Aeration of the interiors including moistening and cooling the air using the wind catchers, subterranean channels and *hayats*.
- Use of different solar-protection devices like gratings and stained glass.

Traditional means of climat-control belong to the most esthetically expressive features of national architecture of Iran.

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