

Original Research Article

The Impact of Russian Wooden House Architecture on Gomishan's Wooden Houses

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Abstract

Problem statement: The present study attempts to examine the effect of Russian wooden house architecture on Gomishan's wooden houses. To this end, the forms of wooden houses of Turkmens in Gomishan and their Russian counterparts were examined from different perspectives such as materials, building style, physical features, aesthetic elements, and visual elements.

Research objectives: The significance of this study lies in defining the relationship between the cultural characteristics of Turkmen tribes and those of Russian Tribes with whom they used to interact. The main question of this research is what relationship exists between wooden houses in Russia and those in Gomishan. Theoretical findings of the current study highlight the interdependency of tribes' architecture and the role of culture and cultural interactions in the formation of houses and their various parts in different tribes in the past.

Research method: This study adopted a descriptive-analytical method based on a comparative research approach. Data were collected through the library method and field observations. The social and cultural principles of Turkmen tribes were compared with Russian traditional tribes. Then, similar elements and attributes between them were identified. Moreover, the effects of the extracted attributes on Gomishan's Turkmen houses were investigated. The architectural culture of Russian wooden is considered the independent variable of the study while the architecture of Gomishan's wooden homes is regarded as a dependent variable.

Conclusion: The results of this study indicate that Russian wooden houses have influenced the architecture of Gomishan's wooden houses, spatial allocations, façade, and aesthetic elements as well as building tools and methods. This effect is rooted in the interactions between their cultural and social thoughts and beliefs. It is concluded that the cultural, local, and climatic elements of Turkmen tribes have been merged with the cultural and local attributes of Russia. This has resulted in a special type of architecture that is compatible with their cultural characteristics from many aspects.

Keywords: *Russian wooden homes, Izba, Gomishan's wooden homes, Taam, Turkmen architecture.*

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Soltanzadeh" and the advisement of Dr. "Maryam Armaghan" in Faculty of Architecture and Urban Planning, Islamic Azad University, Qazvin Branch. It was defended in 2019.

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Introduction and statement of the problem

Wooden houses scattering from East Asia to Europe have linked cultures sharing many commonalities. In Iran, wooden houses are quite popular with residents on the southern shores of the Caspian Sea. It seems that the differences between the construction of wooden houses in Gomishan and that of other southern regions of the Caspian Sea are not just associated with cultural divergences between these tribes and other inhabitants of the areas and this issue requires further investigation.

This study seeks to investigate the impact of the architecture of Russian wooden houses on Gomishan's wooden houses. To this end, this study examines the form of the houses from different aspects and compare similar elements in the construction of wooden houses of Turkmen and Russian tribes. The reason is knowledge about how Gomishan Turkmen's wooden houses have taken shape is scanty. So far, the origin of this style of architecture in the region of Gomishan, as well as its formation, has not been investigated and complete information is not available. The vast majority of Turkmen ethnic groups are experiencing the phenomenon of border settlement. Most of the architecture in the border areas of Iran has affected the architecture of their neighboring areas or has mutually been influenced by it. The architecture in Gomishan is not similar to the one in Golestan province or any part of the country.

The necessity of investigation in Iranian architectural typology and the specific type of architecture seen in Gomishan region highlight the importance of this issue.

The Turkmen refers to a group of the Central Asian Turks who have settled in the three Soviet states (modern Russia), Iran and Afghanistan, and in Iran based on international divisions and live in two northeastern provinces, Golestan and North Khorasan. The word "Turkmen" has been cited in the works of early Islamic writers such as

Moghaddasi and Beyhaqi as Turkaman. There are different interpretations about its nomenclature among scholars of the Islamic period. Some people such as Abu Rihan al-Biruni and Rashid al-Din Fazlullah argue that the term Turkmen is an acronym for "Turk-like." The second interpretation, which is more popular, considers the Turkmen as "of faith" (Muslimized Turks) and each of them has expressed reasons for accepting their theory (Sarley, 2017, 6).

In many references, it has been stated that the Turkmen originally had 24 tribes, all of whom collectively identified themselves as descendants of Oghuz Khan. The Turkmen living in Iran, which are mostly scattered in Golestan and North Khorasan provinces, have four main tribes, which are: Teke, Goklan, Yomut, and Nakhorli (Fig. 1).

In the past, the Turkmen generally used to be herdsmen and nomads, moving between the cold Balkan Mountains in summer and the plain of Gorgan in winter. The Yomuts, one of the great Turkmen tribes, was communicating with the people of other countries through the Caspian Sea, and sooner than other tribes became acquainted with a new way of trading, urbanization, and civilization, and sooner than others settled in one area. Among the Yomuts, Jafarbai was the most important tribe because of the wider civilization, and this tribe of the Yomut tribe settled in the Gomishan region (Malek Mohammadi Bidhendi, Soltanzadeh & Armaghan, 2019, 36).

Research question

Many factors have influenced the evolution from bowers and tents to the first wooden houses and the settlement of the Turkmen. Meanwhile, the trade link between the Turkmen living in Gomishan and the Russian people created a general taste in architecture that is physically very similar to Russian wooden architecture. Accordingly, the main research question is what architectural features of Russian wooden houses have been used in Gomishan Turkmen houses?

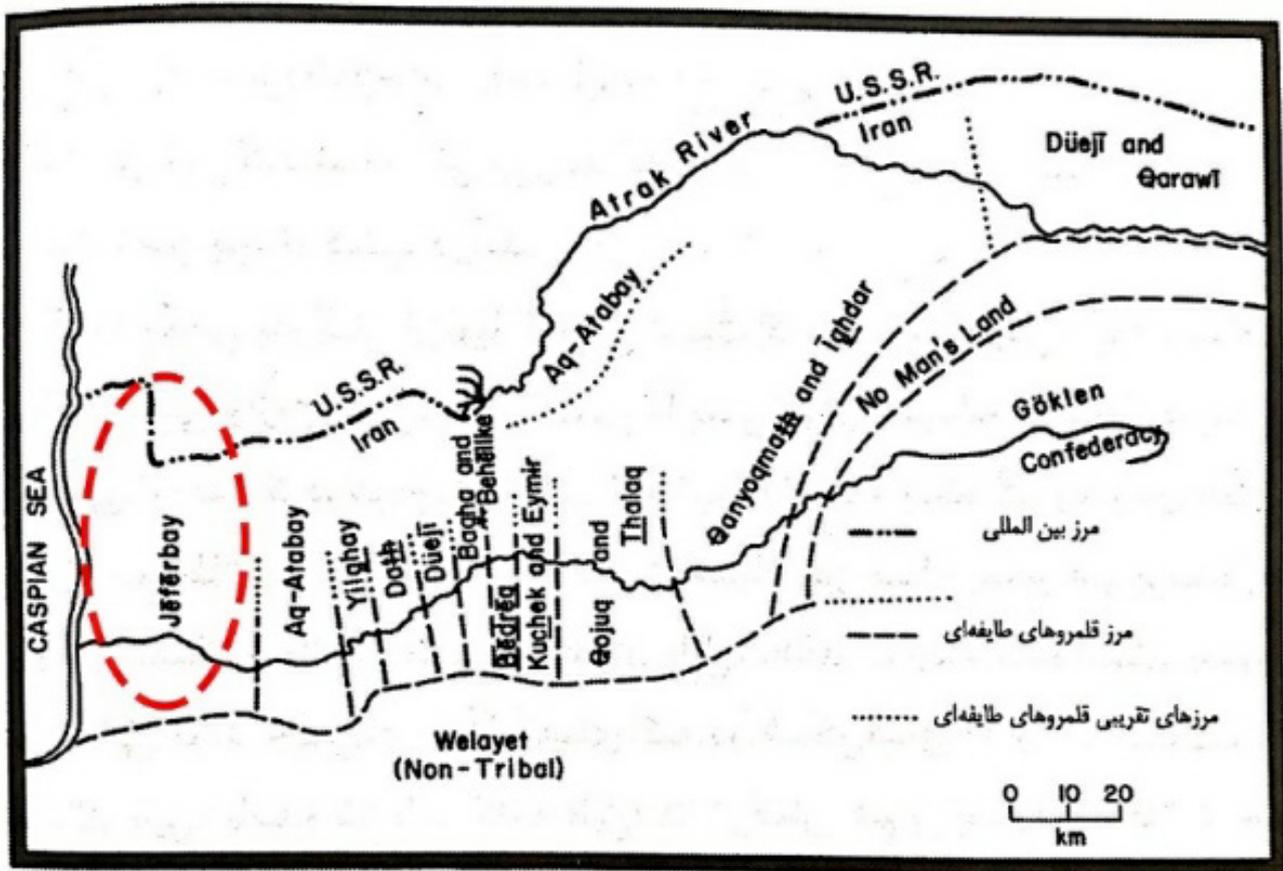


Fig. 1. Location of Gomishan and settlement of Jafarbayi as a sub-tribe of Yomut and location of other tribes in Gorgan plain, before 2011. Source: Irons, 2006, 120.

Table 1. Literature review. Source: Authors.

Field of study	Source	Author	Title	Explanation
	Book	Mahmoudinejad (2009)	Turkmen Vernacular housing	Typology and physical studies
	Article	Varjavand (1974)	A visit to the historical monuments and wooden architecture of Haji Tarkhan	The similarities of Russian wooden architecture and Turkmen wooden houses
	Travelogue	Melgonov (1997)	The southern shores of the Caspian Sea or the northern provinces of Iran	Unique monograph on the southern shores of the Caspian Sea
	Book	Irons (2006)	The Yomut Turkmen	A Study of Social Organization among a Central Asian Turkic-speaking Population
		Goli (1987)	Political and social history of the Turkmen	The historical and cultural course of the Turkmen tribes from the fifth century AD
	Article	Pimenova & Marysheva (2011)	Wooden Zochestvo of Krasnoyarsk City as the Space for forming territorial and ethnocultural identity	Russian wooden house as the social building of Russian reflecting identity in central Siberia
		Eremeev (2016)	The wooden architecture of houses of ancient Russia in the XU-XIX century	Introduction of Izba

Research methodology

This research employs the descriptive-analytical research method. The sample of the study

consisted of some houses in Gomishan and traditional and old Russian wooden houses. The architectural culture of old Russian houses

was an independent variable of research and the architecture of Gomishan houses was the dependent variable. Sampling was done purposively and samples were selected based on the features of the old and native architecture of both regions. Data on Gomishan's works were gathered from the field. However, some old photographs and documentary material on old houses in the Russian regions were also collected.

Literature review

Many aspects of wooden architecture or vernacular Russian architecture have remained unknown so far and understudied. Few studies have been conducted on the architecture of Gomishan wooden houses and most of the available studies have investigated the generalities of their cultural topics. Some of the most important references used in this study are given in [Table 1](#). These studies have been classified into three main sections: the social and cultural-historical issues of the Turkmen tribes, the architecture of Turkmen wooden houses, and the wooden architecture of Russia. In the available literature on Russian wooden houses, there are two articles; the first one entitled "Social Construction of Russian Identity in Central Siberia." is on wooden houses in Krasnoyarsk. This article examines how houses can transform the identity of the city's inhabitants and the second one introduces Izba as the most common type of old wooden building in Russia.

Theoretical framework

The theoretical framework of this research is based on the role of cultural interactions and exchanges in the formation of the house and its various parts. Cultural interaction is often discussed as one of the constructive factors playing a key role in the growth and promotion of art and architecture.

Culture includes phenomena such as worldview, beliefs, mindset, knowledge, and customs of a

society. It is obvious that geography and territorial phenomena contribute to the formation of culture, but the effect of some cultural phenomena has been beyond geographical borders since they have been influenced by human ideas and the cultural interactions between two or several communities ([Soltanzadeh, 2014, 456](#)).

According to Rapoport, lifestyle is a set of values and meanings that determine what and how a home is meant to a group or nation and reflect a part of a society's culture. Traditions and customs as a layer of culture and they contain ideas identifying the roots of thought of societies and the status of the cultural situations. Culture has different divisions and forms, and all its aspects, meanings, and forms need to be addressed in the light of its value in different societies ([Rapoport, 2005, 95-103](#)). What should be considered is how human beings and where they do encounter because the way they meet and encounter affect the construction and shape of houses, not just the meeting ([Rapoport, 2009, 111](#)).

Cultural scholars believe that the shape of a place (house, mosque, etc.) is the reflection of the culture of that society. According to the socio-cultural perspective, it is a product that is formed in relation to the nature of society, ideology, worldview, lifestyle, social and psychological needs, individuals' and groups' needs, economic resources, and accessible technologies ([Memarian, 2012, 375](#)). Clifford Geertz, a culturalist, believes that culture is a set of concepts that are introduced along with symbols and becomes a factor through which human beings can communicate with each other ([Geertz, 1975, 89](#)).

People need to establish a social relationship and that is why they provide opportunities to experience such a relationship ([Abdullahi & Mohammadi, 2000, 35](#)). When a person's action triggers a response from another person, the reciprocal action occurs which is known as social interaction. In other words, the person shows by his behavior that he has understood

the expectations of the first person. The result of social interaction leads to the formation of another concept called social group (Bozorgzad & Alborzi, 2000, 3). Bozorgzad highlights the important role of language in creating social action and states: “Distinctions and differences are first recognized, then human beings describe them through language and make them occur through buildings. “Language and architecture become more interdependent in this way; they both reveal the process of distinguishing and differentiating places.” (Fig. 2); (Rapoport, 2003, 58). Regarding cultural interactions and the role of language, it should be noted, “although the Russian people were interested in Iranian art and industry before Peter the Great, a solid foundation for Russian-Iranian cultural relations was established during Peter I. When the Persian language school was established in 1732, the teaching of Persian officially began in Russia, and today 98% of the works of Persian literature have been indirectly translated into Russian. In the indirect translation method, first poems were translated into Russian prose, then “the prose texts were translated into Russian poem by a prominent Russian poet, and an accurately translated work was tailored to the tastes and needs of the Russian people and was likely available to Russian

readers in large numbers.” (Mohammadi Badr, 2008, 128).

Regarding the manifestation of culture in any nation and society, Rapoport states: “All environments are the result of selecting solutions to all possible options. The particular choices that society considers valid and customary are the reflection of that society’s culture. In fact, one of the ways to study culture is to look at the most general comprehensive choices in which specific values, quantities, criteria, and assumptions are applied. These are often manifested in desirable mental forms, and the environments somehow reflect and define these forms and their systems. Settlement evolves for a type of life that is specific to that nation and distinguishes it from other ethnic groups (Rapoport, 2003, 68 -69).

The theoretical framework of this study, which was developed from the theoretical foundations, shows that climate and vernacular culture have often had an effect on the formation of ancient buildings but cultural exchanges have been very influential and this issue is felt especially in the research site. The reason is that the comings and goings of Russian merchants to the Turkmen regions led to the formation of a kind of architecture similar to Russian architecture in these regions.

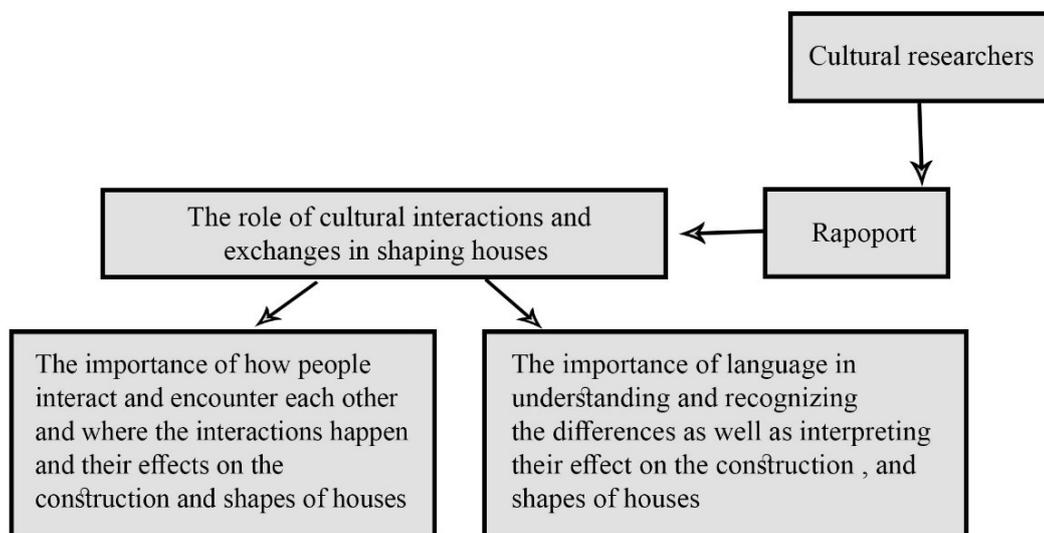


Fig.2.The role of cultural interactions in shaping houses.Source: Adapted from Rapoport, 2003, 58.

Findings

Russia is the largest country in the world and its main export is wood. Most parts of this country have a cold climate and receive low rainfall. Due to its large cold forests, Russia is the largest producer of wood in the world. Cold climate trees are more desirable for construction in this country and the most abundant construction material in Russia is wood. That is why wooden architecture is known as folk vernacular architecture in Russia (Hedayati, 2010, 106).

A total of 150 wooden buildings from the 18th and 19th centuries are under protection in Moscow today. Wooden houses gained popularity in Russia because they were cheaper, faster to build than stone houses. Semi-finished wooden cabinets were sold in the markets. By purchasing them, these wooden structures could be immediately disassembled, adjusted, and moved to another location, where carpenters complete the house in a very short time (Strelka Magazine, 2016, 3).

• Vernacular Russian architecture

Russia has a quarter of the world's forests and is in a unique, inseparable, and important relationship with the wood of the vast Eurasian forest plain. In fact, it is impossible to begin a true understanding of the Russian character without first examining the almost sacred relationship between wood and a Russian. The culture of using wood is in their bones and wins the heart of what makes a Russian a Russian. It shapes their understanding and relationship to the world around them, culture, language, religion, literature, including their rich heritage of myths; and no wonder! The early Slavs, who settled in places on a vital trade route connecting the northern lands and the more prosperous southern regions such as Constantinople, were deeply influenced by the advanced wood culture of the people of northern Europe. In the thirteenth century, it had not been long before the Russians converted to Orthodox Christianity in 988. They expelled the Mongols of

Kyiv, subjugated their people under their "yoke," and made the center of "free" Russian culture move northward. The young but growing Russian government was forced to discover its existence in the forests around the cities of Vladimir, Suzdal, Yaroslavl, and Novgorod. Although Russian Orthodox culture existed before the arrival of the Golden Horde in these areas, other building materials, such as stone, were not yet widely available, and bricks, mortar, and plaster were generally available to anyone except many people. The rich and the projects they supported were very expensive. In the beginning, most buildings could be best described as wooden cabins. The trees were cut down, the wood was cut, shaved, cut, and then stacked on top of each other to build and complete the walls. Over time, these relatively faded away and simple structures became much larger, more complex, more elaborate, and in some cases even more ostentatious. In the 17th and 18th centuries, it was not uncommon for even a standard rented peasant hut to be decorated with decorative blooms around its doors. There was another common feature, and in many ways astonishing; all Russia's original buildings and infrastructure were shared - all of which were built without the use of nails or other metal fasteners (Hartten, 2013, 12).

Many of the houses built in the first period of construction in St. Petersburg are known as local style. Vernacular buildings are often classified as Frame Vernacular, meaning that their structure is supported by wooden frames. Another name is Masonry Vernacular, meaning that their structure is supported by brick, concrete, tile, or stone, which is more of the latest tradition. Created in non-residential buildings. Many vernacular buildings that are still in use today include a combination of the two (Kilborn, Fery & Duvokot, 2017, 14).

In Russia, in a rural wooden house, the house, doors, windows, stairs, and railings, and all the decorations and inlays are made of wood. Interestingly, inside the house, tables and chairs, ledges, dishes, and other utensils are all made of

wood and are usable. Softwood is often used in construction and the most important reasons for its use are the abundance, low price, and availability of this type of wood (Karimi & Afra, 2005, 10).

• **Architecture of Gomishan**

Gomishan is the name of a city including Gomish Tappeh, Simin Shahr, and surrounding villages. Gomish Tappeh is in the center of the city, which is based in Turkmen Sahara, in the northernmost part of the eastern shore of the Caspian Sea. The life of this city is estimated to be 194 years and the old texture of Gomish Tappeh is the second most valuable texture of Golestan province. The people of this area have long been familiar with science and art (Frootan, 2011, 219 - 221).

To know what is the relationship between the wooden architecture of the Turkmen and the vernacular architecture of Russia, and to understand to which part of the Russian cities, this relation and similarity goes back, it is necessary to answer the following question: which areas and which cities did the Turkmen trade with? (Fig. 3)

Turkmen foreign trade generally depended on the political relations of neighboring countries. It seems that due to the hospitality of the Turkmen and their exchanges and trade relations with the Russian people and culture, Russian architecture merged with the Turkmen culture and found the way to Turkmen Sahara and settled somewhere close to the Turkmen tents (Fig. 4).

Since the Turkmen tribes used to go to Russia, Russian guests and businesspersons were encouraged to come to Gomish Tappeh, and this interest in establishing relations and its extension caused the tribes to set up houses based on the tastes of their Russian guests. When they were forced to settle down in an area by Reza Shah, this construction process turned into a kind of house-building style among the people of Gomish Tappeh. There are many documents on Russian merchants' comings and goings to Gomish Tappeh: "Dhiqada 1922" Two Bolshevik merchants (from the Soviet Union) recently entered "Gumush Tappeh" and

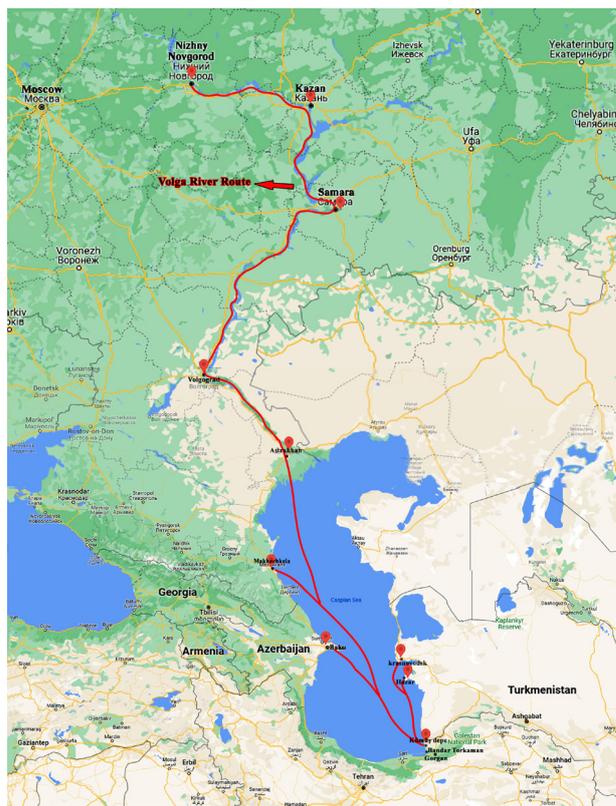


Fig. 3. The cities, which Gomishan Turkmen entered for trade and their distance from Gomish Tappeh on the map. Source: Authors.

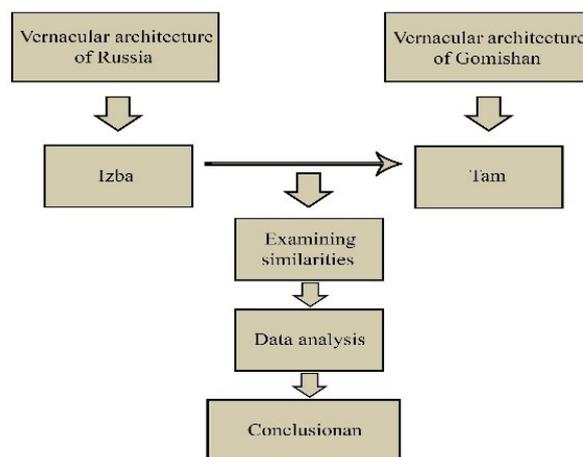


Fig4. The process of examining the relationship between the vernacular architecture of Gomishan and that of Russia. Source: Authors.

opened a shop and sold goods such as Russian backgammon boards and fabulous utensils. They had one hundred thousand toman and merchandise. Each time they gave 2 toman to a Turkmen broker "(Matoufi, 2010, 354). "The Turkmen of the Ashuradeh region established

trade relations with the Russian port of Anzali and Astrakhan¹. They traveled the seas with dominance and carried oil and salt.” (Goli, 1987, 145).

Another city in Russia that is mentioned in many sources in connection with the Turkmen trade is Haji Tarkhan. It should be noted that the city of Astrakhan today is mentioned in ancient texts as Haji Tarkhan: “On the first of Ramadan 1340 AH (1922 CE), the sea route was opened and the merchants of Astarabad, with the companionship of the merchants of Gomish Tappeh, transported many merchants such as barley, wheat, flour, almonds, and walnuts to Russia with Letka and the ship. There they are exchanged for Russian goods and returned. This week, a large number of people left for Haji Tarkhan (one of the points of interest for Astarabad and Turkmen merchants)” (Aghipour, 2014, 353).

This issue can be a turning point to look for similarities between Gomish Tappeh and Haji Tarkhan. Parviz Varjavand went to Moscow in 1973 to serve as a delegation from Iran and to exchange views and negotiate and sign a protocol to prevent pollution of the Caspian Sea, and he visited Astrakhan. He published the summary of his article in the journal of *Honar va Mardom* (in English Art and people) stated that one of the reasons for publishing this article is the similarity between the wooden and vernacular architecture of Astrakhan (Haji Tarkhan) and the common wooden architecture in the Gorgan plain and the Turkmen Sahara of Iran (Varjavand, 1974, 7). What Varjavand explains about the native and wooden architecture of Astrakhan (Haji Tarkhan) reveals the similarity between the texture of the Russian city and its wooden houses with the texture of Gomishan and its wooden houses. He maintains that “Astrakhan is one of the cities where most of the old city is still alive and well. The wooden houses of the city, for the most part, offer a homogeneous and well-proportioned texture in which there is no unreasonable rupture except in a few places. They are related to those neighborhoods where concrete and brick houses are built beside the wood ones and have spoiled the desired atmosphere of the complex.

Fortunately, the number of these awkward buildings is not very high yet, wooden houses are from one to three floors depending on their size, but they are more than one floor, all of them are covered in a gable and most of them are made of an interesting wooden facade with inlays around windows. “The wood of some houses are painted in wood, and in this case, the color of inlays around the windows and roof is white. The details of the inlays of the houses are very valuable and reflect the special interests of homeowners.” (ibid.).

A comparative ba harf koochik study between vernacular architecture of russia and gomishan’s wooden architecture

In the following section, the physical elements of architecture in the wooden houses of Russia and Gomishan are comparatively compared with each other and the similarities between these elements are described (A comparison between Izba and Tam).

• Russian peasant wooden house (Izba¹)

Izba, which is mentioned for the first time in Persian studies, is a kind of Russian rural wooden house. Izba is a traditional settlement in the eastern suburbs of Europe and Russia. This house, which is often a wooden house, is the residence of an ordinary Russian farmer. It is generally built near the road and in the yard, which also surrounds the kitchen garden, hay, and barn, by a simple woven wooden fence (Strelka Magazine, 2016, 1).

This cottage represents the most advanced middle-class peasant house in Russia. The windows of this building are very noticeable. The mainframes of this cottage as well as its interior are painted, a kind of local painting. Izba is a residential building, consisting of two adjoining rooms separated by a wall and a sloping roof, and all parts of the house are installed with wooden fittings rather than the use of expensive iron (Figs. 5&6). These types of houses have individual characteristics in each area. Even in the same area, in the same traditional pattern, different designs with common proportions and carved details and paintings that can be decorated can be seen. The

basic principle of this local architecture emphasizes the protrusion of the front edges and the gables. The amount of decoration in Izba depends on the financial situation of the owner (Eremeev, 2016, 35-39).

The central part of the main Izba façade highlights the extraordinary importance of the ritual of absolute symmetry as well as the equality, and stability of the façade of the building. These features are consistent with the original Russian tradition (Pimenova & Marysheva, 2011).

- Plan divisions

In examining the divisions of the plan of Russian Izba and TurkmenTam, common elements can also be seen. The common components are as follows:

- Rectangular form in the plan.
- Two entrances in the middle of the two longitudinal sides of the rectangle.
- Corridor stretched in the middle to divide the space.
- Stairs in the hallway.
- The main four-part divisions in the plan.

A comparison between Russian Izba and Turkmeni Tam’s plan is given in Table 2.

- Window

Windows are the most decorative and important



Fig. 5. A view of houses in the city of Astara Khan (Haji Tarkhan). Source: www.https://nl.123rf.com.

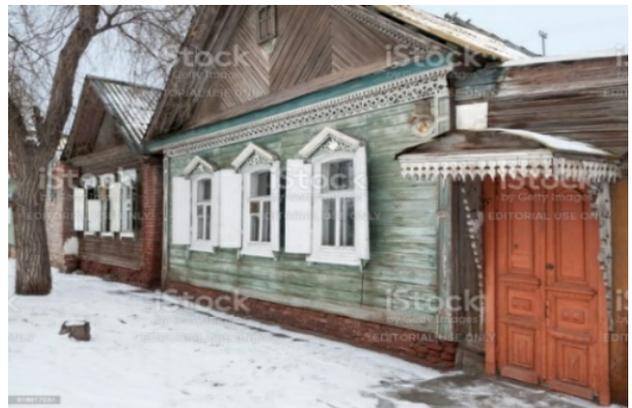


Fig. 6. Examples of Izba in the city of Astrakhan. Source: www.istockphoto.com.

Table 2. A comparison between the plan of Russian Izba and TurkmenTam. Source: Authors.

	Russia	Gomishan
Plan divisions:	<p>Plan of Russian Izaba in Ukraine</p>	<p>Guest House</p>
	<p>Izba Russian Plan</p>	<p>Parnian's house</p>

elements in wooden buildings in Russia. They, which are vertical rectangles, are sometimes seen as double-paned with wooden covers, depending on the location and climate of the area and privacy issues. Wooden frames and wooden casing around the windows have special decorations and come in different styles. It is said that this issue is rooted in Russian culture. These windows are double shutters and the windows with a wooden cover open to the outside, and the windows without a cover sometimes open to the outside, or the inside (Fig. 7).

Divisions of windows are simple and often include three-part, with one section at the top and the opening slide at the bottom.

The windows that can be seen in Gomishan wooden houses have many of the features mentioned above, and this is because these pre-made windows were imported from Russia. However, they often did not have elaborate decorations, and this seems that this was due to the more cost-effective construction in Gomishan, because the windows with more decorations were often associated with higher costs of construction and sales (Table 3).

Decorations avalesh

The predominant building material of Russian vernacular architecture has generally been wood for centuries. In 1813, the Moscow Building Commission was established in the city. The

commission was a special administrative body set up to deal with the aftermath of the 1812 fire. Its members pursued the goal of providing a single style for all of Moscow's newly built housing. All new mansions had to face the street, and the facade design plans were approved by the commission. Facade architecture style, exterior decoration, and color were supposed to be selected in advance. Owners could speed up the design and production process by selecting one of the standard options from design albums. Although classical repetitive patterns and details were common to the Moscow imperial style, the variety of different styles was significant after 1812 (Strelka Magazine, 2016, 5).

In addition to windows, which had a key role in beautifying wooden houses, other factors contributed to these wooden houses. Some of the factors are as follows (Table 4):

- Using happy colors on the outer wall of the building,
- Protrusion and special decorations on the edges of the gables: Valance², an engraved board is placed horizontally under the edges of the porch roof.
- Construction of a very small hut on a gable, which had some functions in the architecture of Russian village houses. In Gomishan wooden houses, the huts have lost their functions and turned into a part of the roof decoration and seem to be a sign of loyalty to the Russian Izba architecture.



Fig.7.The three-part divisions in Russian windows. Source: www. arkowin.com; www.vectorstock.com.

Table 3. A comparison between windows in Russian Izba and Tom Turkmen. Source: Authors

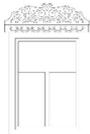
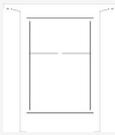
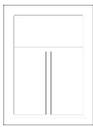
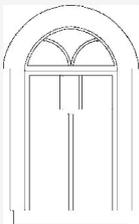
Window	Russia	Gomishan
		
<p>A combination of double-paned window (with a wooden cover) and Santouri</p>	<p>Double-paned windows with a wooden cover combined with Santouri form, Izba in the Siberian suburbs</p>	<p>A combination of a simple Santouri form with a window and a wooden cover in Gomishan, Abedi Ker's House</p>
		
<p>A combination of a wooden frame and round decorations with windows</p>	<p>Ancient Traditional Russian Rural Architecture. A window with a wooden frame carved in the wall made of uneven logs</p>	<p>Gomishan's Tam, Mostafaei's House</p>
		
<p>Single-paned windows without Santouri</p>	<p>School windows in Cheetah, Russia</p>	<p>Gomishan's Tam, Rjab Nezhad's House</p>
		
<p>The main three-part divisions in windows</p>	<p>A Russian Izba in the Volga region</p>	<p>Gomishan's Tam, Rjab Nezhad's House</p>
		
<p>A combination of the window with the classic arch</p>	<p>Russian Federation building in Astrakhan, Russia with arched windows</p>	<p>Gomishan's Tam, Seyed Mohammadi's House</p>
		
	<p>Arbitration Court Building in Downtown Ryazan, Russia</p>	<p>Gomishan's Tam, Goklani's House</p>
		
	<p>A wooden palace in Irkutsk, Russia around 1845 (Harthen, 2013, 12).</p>	<p>Gomishan's Tam, Shirmohammadi's house</p>

Table 4. A comparison between decorations in Russian Izba with those in Turkmen Tam. Source: Authors.

Decoration	Russia	Gomishan
Color	 <p>The use of red on Sytin's house, which is painted directly on wood, Moscow 1806 (Strelka Magazine, 2016, 6).</p>	 <p>The use of red paint on Rajab Nejad's house, the paint is directly placed on the wood</p>
	 <p>The use of green paint directly on wood in a wooden house in Astrakhan.</p>	 <p>The use of green paint on plaster on wood in Seyed Mohammadi wooden house</p>
The protrusion of the roof and a part called Valance (Podzor) Special decorations of the underside edge of the gable	 <p>The underside edge of the gable decorated with wood carvings in the traditional wooden houses of the Russian village of Alexandruka circa 1826</p>	 <p>The underside edge of the gable decorated with tin carvings and those areas not exposed to rain decorated with wooden motifs, Rezaei's house</p>
	 <p>This part, which can be found in many wooden houses in Russia, is of great use. This wooden house is located in the city of Kovorov in Russia</p>	 <p>It seems that the huts in Gomishan have lost their use and are just a kind of decoration. On the roof of Bahram Mohammad Khozini's house</p>
A small hut on the roof	 <p>On the roof of a wooden house in Russia</p>	 <p>On the roof of Mozaffari Sharghi's house</p>

Rest of Table 4.

Decoration	Russia	Gomishan
A special type of chimney on the gable roof		
	<p>Somewhere on the sloping roofs, there is something like a chimney, which is usually carved and has its decorations, and in Russian houses, it seems to have been used as a chimney, while in Gomishan wooden houses this part is only a part of the decorations. (Pimenova & Marysheva, 2011,1786)</p>	<p>This chimney-like part is also seen in Gomishan wooden Turkmen houses and was part of the roof decorations and is located right behind the wooden huts and at the intersection of sloping roofs.</p>
		
	<p>Centralism and Observance of Symmetry</p>	<p>Symmetrical and Centralist Decorations, Haj Mohammad Haji Khozini's House</p>
Exterior and interior paintings		
	<p>The bottom half of the wall painted in a Russian house</p>	<p>The bottom half of the wall painted in a Turkmen house, Abedi Kar's house</p>
		
	<p>Decorative patterns drawn directly on wood in Russia</p>	<p>Decorative designs drawn on gypsum joinery, Rezaei's House</p>

- Internal and external paintings in which some cases of centralism can be seen.

• Other similar elements between the Turkmen tribes of Gomishan and Izba Russian

The main connections in the construction of both were made without the use of nails and these connections were made in the form of palate, tongue, etc (Table 5).

- Sloping roof

In Russia, different shapes of the roof are used.

The shape of the roof of a structure is one of the most characteristic features of the building, and architectural styles use different shapes of the roof as its main components. Most roofs in Russia are decorated with carvings (Kilborn, Fery & Duvkot, 2017, 155).

Discussion and conclusion

The results of the research indicate that the ethnic roots of the Turkmen as a common cultural joint with Russian have led to the spread of

Table 5. A comparison between other elements in Izba and Tam. Source: Authors.

Decoration	Russia	Gomishan
	 <p>The use of stone on the ground floor and use wood on the upper floor</p>	 <p>The first floor is made of brick and the second floor is made of wood, Rezaei's house</p>
	 <p>The first floor is made of brick and the second floor of wood in the Volga Russia Kostroma region</p>	 <p>The first floor is made of brick and the second floor is made of wood, Pamian's house</p>
Gutter	 <p>Using gutters to collect rainwater in Russia</p>	 <p>Using gutters to collect rainwater, Rezaei House</p>

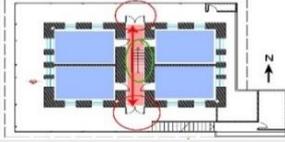
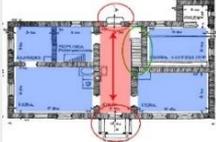
culture and customs, habits, and architecture. In addition, extensive trades with different regions of Russia created a general trend for architecture in Gomishan. This type of architecture was somehow associated with the Turkmen culture of hospitality. It was originally used to make the Russian guests coming to Gomishan feel happy. Gradually, it turned into a permanent residence for them. The Turkmen had the most visits to the present-day city of Haji Tarkhan or Astrakhan on various trips to and from Russia. Many of the physical elements of these wooden houses that were brought to the Gomishan region from Russia were prefabricated.

Examining the physical similarities of the Russian rural houses called Izba with those seen in Gomishan, known as Tam, showed that Izba and Tam share some similarities in different aspects such as the physical components: the

plan divisions and type of windows, and the use of paint and special decorations. Analyzing the unique physical framework and the history of most of the Izbas show the Gomishan wooden houses have been influenced by Russian rural architecture, and the Turkmen tribes combined them with their cultural, vernacular, and climatic elements. By reproducing it, they came to a special type of architecture that in many ways corresponded to their cultural characteristics (Table 6).

Therefore, based on the above table, it can be seen that, for example, in plan and spatial divisions, as well as the arrangement of rooms and main and secondary spaces (such as corridors, etc.), there are similarities between Russian and Turkmen architecture. The rectangular form is seen in the plans and generally, the installation of two entrances in the middle of the two longitudinal

Table 6. A comparison between different types of roofs in Russia and Gomishan.

Elements of the house	Explanation	Russia	Gomishan
Plan	Rectangular plan in the plan / two entrances in the middle of two longitudinal sides of the rectangle/a corridor stretched in the middle to divide the space/stairs into the corridor / main four-part divisions in the plan		
Window	Using three-part divisions horizontally at the top and two vertical sections at the bottom as a motif		
	A type of double-glazed window that has a wooden cover and is combined with Santouri. This combination can be seen in both vernacular Russian and Gomishan wooden architecture.		
	Another type of window is a combination of Russian style with a classic arch. This can be seen in both vernacular Russian and Gomishan wooden architecture.		
	A single-paned window that has no wooden cover and is without a Santouri		
Decoration	Using cheerful colors such as red, orange, green, blue, etc. on the exterior wall of the house, sometimes directly on wood and sometimes on plaster.		
	The protrusion of the roof and special decorations of the lower edge of the gable, which was sometimes done with wood and sometimes with tin sheets.		
	A small hut on a gable can be seen in Russian houses and have a use, but in Gomishan houses they have no use and are only a kind of decoration.		
	The chimney is usually carved and has its decorations, and in Russian houses, it has served as a chimney, while in Gomishan wooden houses it was only a part of the decorations.		

Rest of Table 6.

Elements of the house	Explanation	Russia	Gomishan
	Murals on the exterior and interior walls and ceilings can be seen in two ways: the color seen only in the bottom half of the walls, and the paintings on the ceiling and exterior walls.		
The use of stone on the ground floor and wood on the upper floor is a type of house in both Russia and Gomishan.	A type of house can be seen both in Russia and in Gomishan, where wood is used only on the upper floor and the lower floor is made of brick or stone.		
Gutters and the use of sloping roof	Sloping gutters with the same shape for collecting rainwater are found in both samples, and sloping roofs can be seen.		

sides of the rectangle is an integral part of these architectures, also the corridor in the middle divides the space. The four-part plan is one of the main pillars of Gomishan Turkmen wooden architecture, which can also be seen in Russian wooden architecture.

Regarding the other physical element, namely the window, it should be said that the three-part divisions are used horizontally at the top and two vertical parts are used at the bottom. This motif has been used in the façade of wooden houses and is also found in the wooden houses of Russia and Gomishan. Sometimes it has been combined with the form of Santouri and sometimes with the form of Roman arches, and sometimes it is seen as single-paned without a wooden cover, and sometimes with a wooden cover. As the windows used in Gomishan houses are prefabricated and imported from Russia to Gomishan, this element of Russian architecture has also had a direct effect on the architecture of Gomishan wooden houses. Regarding the decorations and architectural

details of Gomishan wooden houses, some cases show the influence of Russian architecture, for example, the use of cheerful colors such as orange, red, green, and blue on the outer wall of the house, which is sometimes straight. It is painted on wood and sometimes on plaster, the same colors are especially seen in the interior walls; only in the bottom half of the walls, the same as what is seen in Russian houses. In addition, the protrusion of the roof and special decorations on its edge sometimes with wood and sometimes with Aleppo sheet, which is often not seen in other parts of Iran, reflects the influence of Russian architecture.

In terms of materials used, these houses share some similarities, or they are entirely made of Russian fir wood, or the upper floor is made of wood and the lower floor is made of brick. In Gomishan, the house is made entirely of bricks. The reason for using bricks is associated with the availability of the type of materials. According to the points discussed, Russian

architecture plays a key role in the architecture of Gomishan houses and the influence of Turkmen architecture on Russian architecture can be expressed as a definite thing.

Endnotes

1. иэбáа [iz'ba]
2. Подзop
3. In houses where the plaster is painted, the charcoal wall technique has been used. In this technique, the wooden formwork is filled with thin branches of trees in a cross or diagonal form and is coated with plaster (Mir Yousefi, 2009, 42).

Reference list

- Abdullahi, R., & Ali Mohammadi, Gh. R. (2000). Explaining the principles of culture in the native architecture of Iran and its relationship with creating a sense of belonging to the place. *Urban Management*, 17 (50), 33- 46.
- Aghipour, M. (2014). *Gomishan: Do Qadiq Makan* [Gomishan: Two Ghadiq places]. Gorgan: Makhtumoghli Farghi.
- Bozorgzad, A. & Alborzi, F. (2000). Investigating the role of social interactions in the architecture of cultural spaces. In *The 5th International National Conference on Architecture and Urban Planning in Iran in the Transition of Works and Thoughts*. Qazvin: Islamic Azad University.
- Eremeev, V. (2016). *The wooden architecture of houses of ancient Russia in XU-XIX century*. Retrieved from <https://clar.urfu.ru/handle/10995/47115?mode=full>.
- Frootan, A. (2011). *Gomishan Tarikh-e Sarzamin-e Farhang* [Gomishan History of the Land of Culture]. Golestan: Rasanesh.
- Geertz, C. (1975). *The interpretation of cultures*. United Kingdom: Hutchinson.
- Goli, A. (1987). *Tarikh-e Siasi va Ejtema'i-ye Torkaman-ha* [Political and Social History of the Turkmen]. Tehran: Elm.
- Hartten, T. (2013). *Wooden architecture Russia's window on the past present and future*. Retrieved from <https://seeforestfortrees.com/wooden-architecture-russias-window-on-the-past-present-and-future-354a22ceb5fc>.
- Hedayati, F. (2010). The Architecture of Russian Wooden Houses. In H. Soltanzadeh, (Ed.), *Identity in Contemporary World Architecture, Collection of Architecture Articles*. Qazvin: Islamic Azad University.
- Irons, W. (2006). *The Yomut Turkmen: A Study of Social Organization among a Central Asian Turkic-speaking Population* (M. A. Kan'ani Trans.). Tehran: Afkar.
- Karimi, A. N. & Afra, E. (2005). *Takhrīb-e Choob-*
- Alat dar Sakhteman: Shive-ha-ye Mohandesi-ye Timar-e Hefazati* [Demolition of wood in the building: engineering methods of protection treatment]. Tehran: Ayizh.
- Kilborn, D., Fery, L. & Duvekot, L. (2017). *The City of St. Petersburg's Design Guidelines for Historic Properties*. Retrieved from <https://pdfroom.com/books/the-city-of-st-petersburgs-design-guidelines-for-historic-properties/Wx5aDwx02BJ>.
- Mahmoudinejad, H. (2009). *Maskan-e Bumi-ye Torkaman Goone-Shenasi va Molahezat-e Kalbodi* [Turkmen vernacular housing typology and physical considerations]. Tehran: Heleh / Tahan.
- Malek Mohammadi, H., Sultanzadeh, H. & Armaghan, M. (2019). The role of egalitarianism and hospitality on the continuity of living in Gomishan houses. *Islamic Iranian city*, 9 (36), 35-48.
- Matoufi, A. (2010). *Tarikhche-ye Chahar Shahr-e Torkaman-Neshin: Aq-qala, Bandar-e Torkaman, Gomsh Depe, Gombad Kavous* [History of four Turkmen cities: Aqqala, Bandr-e Turkmen, Gomsh Depe, Gonbad Kavous]. Gorgan: Makhtumoghli Farghi.
- Melgonov, G. V. (1997). *The southern shores of the Caspian Sea or the northern provinces of Iran*. Tehran: Ketab-Sara.
- Memarian, Gh. H. (2012). *A look at the theoretical foundations of architecture*. Tehran: Soroush-e Danesh.
- Mohammadi Badr, N. (2008). Naghsh-e Tarjome dar Ta'amolat-e Farhangi Beyn-e Iran va Rusiyeh [The role of translation in cultural interactions between Iran and Russia]. *Foreign Languages Research*, (43), 121-139.
- Mir Yousefi, P. (2009). *Memari-ye Choob; Az Gilan ta Alzas* [Wood architecture; From Gilan to Alsace]. *Memar*, (55), 46-40.
- Pimenova, N. N. & Marysheva, A.V. (2011). Wooden Zodchestvo of Krasnoyarsk City as the Space for Forming Territorial and Ethno-Cultural Identity. Retrieved from <http://journal.sfu-kras.ru/en/number/260>.
- Rapoport, A. (2003). Cultural Origins of Architecture (S. Alerasoul & A. Bank Trans.). *Khiyal*, (8), 56-97.
- Rapoport, A. (2005). *The Meaning of the Built Environment: A Nonverbal Communication Approach*. (F. Habib, Trans.). Tehran: Urban Planning and Processing.
- Rapoport, A. (2009). *Pour une Anthropologie de la Maison* [an Anthropology of the House] (K. Afzalian, Trans.). Tehran: Herfe Honarmad.
- Sarley, A. M. (2017). *Turkmen History*. Gorgan: Makhtumoghli Farghi.
- Soltanzadeh, H. (2014). The role of geography and culture

in formation of house roof. *Human Geography Research*, 46 (2), 449-464.

• Strelka Magazine. (2016). *The Wooden Age of Moscow Architecture*. Retrieved from [https://www.archdaily.com/784618/a-la-izba-and-faux-stone-moscows-age-of-](https://www.archdaily.com/784618/a-la-izba-and-faux-stone-moscows-age-of-wooden-architecture)

wooden-architecture.

• Varjavand, P. (1974). *Didar-I az Asar-e Tarikhi va Memari-ye Choobi-ye Shahr-e Haji Trkhan*. A visit to the historical monuments and wooden architecture of Haji Tarkhan (Astrakhan). *Honar-va-Mardom*, (140&141), 2-7.

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