Didactic Architecture and Music in Zurkhaneh

Seyyed Sobhan Afsarian*

Abstract

Zurkhaneh is a firm phenomenon of Iranian-Islamic culture which contains some didactic characteristics of our ancestors' traditions. These characteristics are formed by holistic thinking of our ancestors. This holistic thinking a whole has unified different parts of these characteristics. According to the holistic minds of the Iranian people, all elements of a phenomenon have been seeking to achieve a goal. Architecture and music as, respectively, the objective and the subjective elements which are located at the two ends of the spectrum of Zurkhaneh phenomena are proofs for the claim that Zurkhaneh is formed for training and education of heroic and humane characters.

This study aims to find the educational perspective which is common between these objective (architecture) and subjective (music) elements of Zurkhaneh. Based on the findings of this study, the architecture and the music of Zurkhaneh aim to, make people interested in Zukhaneh ideas and, moreover, to place these ideas in their minds. They try to achieve this goal through simplicity and getting close to people's lives, getting away from artificiality and specialized complexities as well as adherence to the principles of simplicity and convenience. In this framework, architectural and musical components are selected such that one can easily create them or keep them in mind. Scrutability, simplicity, and humanism were of the features which realize the aim of the establishers of zurkhaneh phenomenon. All of these features are manifested in zurkhaneh architecture and music. This is a qualitative study which seeks some instances of the two elements of architecture and music by incorporating field and library methods for data collection. Finally, using content analysis and content comparison of the data obtained by information analysis, it explores the correspondence between these two elements.

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*. M. A. in music, Art University, Tehran, Iran. sobhan_afsarian@yahoo.com

Introduction

The phenomenon that is studied in this paper is regarded as a cultural phenomenon in a cultural-civilizational context. "In some ways, every work of art or, basically, any kind of cultural chorus must be understood only in relation with the structure of the society in which it is produced and received, and only based on the position and functionality that it has in that society" (Akhgar, 2011: 167). In other words, understanding a work or a product depends on the understanding of its status and its relationship with the community (or society (?)). Zurkhaneh as a cultural work can be correctly and comprehensively understood when it goes beyond what is viewed from the perspective of the modern science and is analyzed in the realm of thought and civilization from which it is derived. "In the old days, every institution that was founded in Iranian society was compatible with social and economic as well as cultural and religious systems of that society. Each social institution and phenomenon was a set of secrets and codes and contained signs of culture, art, wisdom, and religious and ethnic beliefs of people" (Bolukbashi, 2004). Accordingly, ontological attitude of didactic arts is derived from a holistic perspective which considers the phenomena as an interwoven and inter-connected single unit. Thus, the didactic attitude can also be traced in other branches of zurkhaneh. Intellectual realm of the inner trends and actions of a community are directly related to the social status of the work of art. In fact, this is the social system which defines the functional scope of any kind of cultural chorus. The phenomenon of zurkhaneh, as a cultural chorus which plays a didactic role, uses each of its components (whether music, architecture or literature) to reach its final goals: education, ethics, and wisdom. As an interpretation of didactic works, one can say that "didactic literature is a work which explains a knowledge (whether practical or theoretical) to the reader or presents moral, religious, or philosophical issues in a literary form" (Shamisa, 2002: 269).

The essence of didactic art is ethics, wisdom, and admonitions. "In our ancient works, various titles such as piety, advice, wisdom, preach, and education have been used to refer to didactic literature." (Rastegar Fasayi, 1993: 408).

In order to achieve this essence, zurkhaneh compels each of its components (architecture, music, and literature) to move along with their goal which is education. Since zurkhaneh audiences are ordinary people, it adopts a language which is simple, tangible, and understandable to everyone as far as possible. This study seeks to analyze the phenomenon of "zurkhaneh", as the product of the world of tradition, which has emerged with a didactic perspective, through the same presupposition. The present study adopts a reciprocal trend which presupposes that mind and thoughts are creators of zurkhaneh in didactic position and studies its two effective components. In addition to "proving" this view, it cites some examples to reach a separate conclusion on the "quality" of this view. The instances which are studied in this paper include two fields: "architecture" and "music.. These two fields are investigated in three sections . The study seeks for general characteristics which shape the internal structure of these two fields. In the first two sections, each field is studied separately. In the third section, in order to find a common language, both fields are studied analogously. In fact, this investigation is seeking for the understanding of zurkhaneh that existed, as a whole, in the minds of its creators and has formed all of its objective and subjective, physical and abstract components. From its tangible and practical branche (architecture) to its most subjective art (music), all seek to create a whole: the phenomenon that we call zurkhaneh and whose ultimate goal is education. In the analytical part of the paper, we deal with a transcendent vision of the superficial and empirical results so that by looking at any of its objects, we can find that didactic notion. That is, to find which worldview the intended objects are representing and what is the general spirit which dominates them .

Literature

Much of the literature on Zurkhaneh is related to khaneh customs and expressions. Here, we can refer to the book "Education of Zurkhaneh Sports" written by Farhad Tolou'eian (2010) which examines the history, culture, traditions, places and instruments of zurkhaneh sports. In the article "Effects of zurkhaneh Literature on Popular Culture", Hayedeh Seirafi explores the proverbs influenced by zurkhaneh and finds the origins of zurkhaneh expressions. In the article "Code of Chivalry, zurkhaneh, and ancient sport in the historical process" (2008), Mostafa Sediqpour explores the historical development (or evolution ?) of Zurkhaneh before and after Islam and describes zurkhaneh building and ancient sport practices. In the article "beliefs and rituals of zurkhaneh" (2008), Ali Jahanpour explores the stories and beliefs about zurkhaneh in Hamadan City. Of the literature in the field of zurkhaneh music, we can mention the book "Sports rhythms" (zurkhaneh rhythms) by Faramarz Najafi Tehrani (1991) which studies several zurkhaneh rhythms and history. Of literature in the history field, we can refer to the book "Zurkhaneh History and Culture" (1974). The first section of this book investigates the historical roots and social role of pre-Islamic ancient sports until the end of Qajar. The second section is a lexicon gathered from zurkhaneh terms. The third section is a summary on the zurkhaneh sport operations and the rhythm of each beat. In the article "Clothing of Zurkhaneh Heroes" (2010), Ma'soumeh Hosseinpour describes the historical evolution of zurkhaneh clothes. In the article " Iranian religion of affection and ancient exercise" (1977) which is an introduction to the book "Socio-Cultural Study of Tehran Traditional Gymnasiums", Mehrdad Bahar compares zurkhaneh and affection temples (Mithraism temples?). He recognizes Iranian zurkhaneh architecture as the outcome of a long-term ups and downs. He believes that zurkhaneh architecture is influenced by the affection thought religion (Mithraism ?). In the article "another look at an old tradition: zurkhaneh", Sadreddin Elahi criticizes two theories on the establishment date of Zurkhaneh.

Hypothesis

Zurkhaneh, as a place for educating customs and beliefs of manhood and chivalry, is a "didactic" phenomenon in the holistic Iranian-Islamic culture and thought. It has used its components such as architecture and music for its didactic goals. Zurkhaneh architecture and music own features such as simplicity, convenience and humanism which make them closer to "didactic" characteristics and provide a tool for education and create a general phenomenon along with other elements called "Zurkhaneh".

Zurkhaneh Music

Zurkhaneh music contains a vast range of beats, melodies, rhythms and sounds and addressing each one requires a separate opportunity.

In this section, zurkhaneh beat of "heroic melody" is explored as one of the richest parts of this music from three perspectives of melodic characteristic, melody rhythm, and inner rhythm. First, we introduce a history of zurkhaneh beat.

Athletic ode

"athletic melody" or "Gol Koshti" or "Ghol Koshti" is a word in the form of mystical and epic poems which is sung by the mentor or athlete. This song is an admonitious praising speech with literary, mystical, and epic quotations" (Tolu' Kia, 2010: 126-127). The reason for choosing the beat "heroic melody" as the research sample is its musical richness and ability for using the three elements of poetry, rhythm and song in one single beat. Since this rhythm is sung during wrestle, they called it "Gol Koshti"(flower of wrestle). Pahlavani (heroic) wrestling was only for great heroes. One had to call for wrestling to defeat another. Naturally, for such an important event, popular heroes and veterans gathered in zurkhaneh and the mentor sang the "gol koshti" poem (Mostafa Sediq Imani,2008:55). This beat not only has a rich inter-connection between poetry and music but also has historical authenticity regarding the mentioned lyrics.

In the following paragraphs, we investigate zurkhaneh beat of "heroic melody" from three perspectives of (i) melodic characteristics, (ii) rhythm, and (iii) inner rhythm of the lyrics. It should be noted that we study this beat by focusing on three samples performed by three top mentors of the country.

1. Melodic characteristicsIn the analysis of the structure of a melody, four main factors are investigated. . In this study, we investigate these four main melodic factors in three performances of mentors Tamouli, Hojjati, and Nayeri. These factors are as follows:

1. Distance and framework of modalities
2. Continuity or discontinuity of the melody motion
3. Combination of intervals, and direction of melody
4. Expansion

Distance and framework of tonalities in all three performances are sung correctly in the fourth vocal range. Correct use of the fourth vocal range represents a minimal use of melodies for creating melody context. In other words, music is satisfied with minimum songs to create melody and follows felicity. The melody movement in all three phonetized samples represents the continuity of melody in all three performances. Avoiding consecutive jumps has led to coherence and unity of the melody. Since the song has the semantic load of the lyrics and has a high position in the traditional music, it is expected to appear in zurkhaneh music with vocal complexities. But in songs of all three masters, decorative tremolos have been avoided. Song melody emphasizes on musical accompaniment rather than on singing decorations. The song has ignored representation of decorative effects in roder to create a more coherent and homogeneous music.To serve zurkhaneh music, it incorporates melodic continuity and and avoids musical decorations.

In examining the direction of melodies, their upward or downward movements are the same in all three performances and the melody returns to its intial point. This equality in upward and downward movements of the melody results in a melodic symmetry. In musical terms, this melodic symmetry

will be formed easier and faster in the mind of the listener and the melody will be more durable. The music is trying to pursue a purpose through this melodic symmetry: That is further formation of melody in the listener's mind.

In all the three performances of heroic melody beat, no change of module occurs. This non modulation of rhythm is a usual phenomenon. Adherence to the basic module reveals some stability during each rhythm. The music ignores the change in timbre and theme and seeks a diversity in rhythmic variations. The technique of question and answer is used in songs of all the three performances. This technique reveals a kind of melodic interaction within the melody. This restoring circular motion creates some simplicity and pleasant repetition of sounds in the mind of the listener.

9. Melodyrhythm

By putting together the melody of all three performances, we obtain similar rhythmic patterns. Using time stretching similar to these stretches leads to the affinity of rhythms in all three performances. In terms of vocal phrasing, all three performances follow a very close rhythmic pattern. Minimal use of rhythmic figures indicates simplicity of the melody. The melody has been formed and expanded with simplest time stretches.

3. Internal rhythm of lyrics

One of the defining elements of the musical rhythm of lyrics is the poetry beher. Poetry beher determines the internal rhythm of music. Beher of the poems of all three cases is beher-e mosamman-e mahzūf. The poem weight of this beher is "Fa'oolonna, Fa'oolonna, Fa'oolonna, Fe'l" and is known as the "hemasi" metre. The use of "hemasi" metre in all three performances somehow confirms the symmetry of poetry metre with the theme of zurkhaneh music. On the one hand, use of this metre helps the mentor to use classic samples of Persian poetry with moral and epic themes and on the other hand, it is the metre which easily remains in mind.

Use of symmetric and continuous melody, non-vocal decoraions and simplicity-based song improves the influence of poetry and what is desirable in zurkhaneh

music.

•Zurkhaneh Architecture

If zurkhaneh architecture is analyzed in the context of traditional architecture, we see that it has evolved with a fixed pattern and with little changes associated with time and geography ; This architecture is defined with respect to other urban elements. Hence, in old times, zurkhaneh was also called as "langargah1". "During the sixth and seventh centuries, there were some places (called Langars) in cities where youths were used to gather." (Ensafpour, 1974: 103) and they were built in the vicinity of markets and economic centers. "Zurkhaneh as well as mosques, public baths, and teahouses formed the traditional community and social centers of Iran" (Roshar, 2004: 49-80). Zurkhaneh can be considered as the beating heart of the neighborhood and the training center of cavaliers It was present in daily lives of the masses. This indicates that zurkhaneh was a part of the most popular organs of the city in Islamic era. "Zurkhaneh is one of the original Iranian institutions whose history starts with the history of Iranian people if its whole system is considered. Zurkhaneh is not only a sports Institute, but it consists of many political, ideological, and moral elements (Goudarzi, 2004: 149-170). Regarding the general architecture of zurkhaneh, it is necessary to explain the principles of zurkhaneh architecture. Its entrance is a short door (about 1.5 meters) with two or several steps down the alley next to the arena floor. Zurkhaneh arena is octagonal with a height of about 70 to 90 cm from floor to the rim and a length of about 8 meters from one angle to the other, where 20 people can exercise in. Similar to old baths, there are usually four stoops around it. Zurkhaneh ceiling was circular with a height reaching 10 meters. Next to the entrance of the Zurkhaneh area, there was the "sardam" (mentor's place). Hence, the mentor could monitor the entrance and exit of athletes. In front of it, there was a scaffold or something like that for hanging the bell. Other objects such as swords, helmet, daggers, chains, leopard skin, armor, shields and swan feather were hung on it. There was a platform of approximately one meter upon which the

mentor sat and was called "sardam". As indicated in "Borhan Qate'" glossary, "sardam" means the leader of singers. Length and width of sardam was such that it can be easily reached by the mentor" (Aqajani and Kamali, 2012: 39). Imam Ali (AS) image was placed above the sardam. Sardam platform was about 1 to 1.5 meters above the floor level. A stove was dug on the podium under the scaffold in which they put fire and whenever there was no stove, they put a chargrill under the scaffold such that the mentor could warm up his tombak with the heat from furnaces or fireplaces and make his voice louder. In the Safavid era, sardam was also used for sitting and reciting poems for Imam Hussain (AS) or proselytizing Jafari religion. Such ceremonies are still being held in many traditional gymnasiums. The arena in zurkhaneh was built in pentagon, hexagon or octagon forms to fit its space. Actually, in the zurkhanehs which are built based on a correct architecture and according to the knowledge of the history of ancient and traditional zurkhaneh, the sacred arena is octagonal. Dome vault roof (above the ring) had either 8 holes or were built by eight-pointed stars with thick glasses. We can discuss and interpret zurkhaneh architecture from two perspectives. First, signs and symbols and second, in terms of form and the framework of zurkhaneh building. In the first issue, the whole interior space and architecture of zoorkhaneh are full of direct and indirect symbols which have been guided by a clear purpose. Ta'zieh for Imam Hussein (A. S.), praise of Imam Ali (A. S.), and symbols and instruments of dervishes in sardam were among direct symbolic references in zurkhaneh. The same are the facade and the internal and external forms of zurkhaneh. Internal and external forms of zurkhaneh buildings in the past resembled monasteries. After the advent of Islam, zurkhaneh (langargah) and monasteries were the gathering place of sufis, and a reference for heroes and followers of chivalries. Therefore, we can say that the reason for similarity of structures of zurkhaneh and monasteries in being lower than the ground level, short entrance, platforms under the stairs and seats was that the athletes

had mentors or pirs and the remaining samples of these monasteries bear witness to this claim. "The door is short and anybody who wants to pass it must bend his back. The door of zurkhaneh is built short so that athletes and spectators bow to respect athletes." (Sediq, 1974: 9). The podium on which the mentor sits is like oratory pulpit. Exterior view of zurkhaneh is either dome shaped or square or dome with minarets in which air and sunlight flow through entries into it. Dome in traditional gymnasiums and holy places and monuments has spiritual values beside architectural aspects which is still common" (Aghajani and Kamali, 2012: 30). Zurkhaneh rings were built in hexagonal forms in remembrance of Seyyedoshohada or octagonal form in honor of the eighth Imam and had religious aspects (Fig. 1).

These direct and symbolic gestures indicate another aspect of this ancient sport that has been highly emphasized and directly referred.

We can also achieve concepts beyond the physical form of this type of architecture by its formal and physical analysis.

One of the reasons for lower location of the ring was that "athletes be placed in a lower height than others during exercise and do not feel pride and arrogance (Ansari, 2004: 11). No one had the right to enter and leave the sports arena without the permission of the master. Sitting on the edge of the arena was also banned.

Simply and popularity of such architecture in zurkhaneh buildings made them closer to the society. As if zurkhaneh architecture has entered the heart of Iranian cities with simple language and contains a message whispered by the master and architect in the ears of athletes who were ordinary people.

Common expression of architecture and zurkhaneh music

In order to achieve the research goals, we should achieve a common language for the two studied elements so that we can analyze the hypothesis. There are difficulties in finding the common areas and the same assessable points in two architecture and music

fields due to their objective and subjective natures. However, we have tried in this section to refer to the principles that can be respectively achieved in both of them by finding a common language in these two areas. Many efforts in this regard can be seen in the literature which are often limited to visual expressions in these two fields. Taking a substantive look at these two fields indicates that ontological difference between architecture and music prevents a deep common expression and comparison between them.

"The problem in studying these two fields (architecture and music) lies in its nature (i.e. search and research in the two fields or different knowledge). The first has a concrete nature and is based on objective and dimensional qualities so that it can be remembered and it also provokes emotions and feelings. The second is inherently intangible and based on subjective qualities and dimensions which are only realized through creation of motivations that are sensible through listening and affect the inner world of person" (Falamaki, 1999: 283). This article seeks to free itself from physical and formal comparisons and tries to achieve some criteria for evaluating the matter as deeper as possible. "At all times, architectural work is capable of playing the role of a special socio-cultural media by its own shape or form and the expression that is specific to it and its driving force or the symbols within it. And this is the way music goes through and aims to put the sentences, themes, and motifs in a certain order in particular compliance with rules which have experimental basis and roots and rely on mathematics-natural sciences, putting them together in frameworks with musical frames (such as sonata or symphony or fugue)"; (Ibid).

As the few studies in this field shows, we can achieve some principles for comparison or an alphabet for a common understanding in these two fields. One of these studies is the research titled "Physical creation of music and architecture" by Shiva Samimi which introduces sound in music and visual signs of physical architectural as the physical essences of

Fig. 1. Excessive use of frames and symbols and revered and sacred figures is indicative of another aspect of this sport which deals with mental and moral training of athletes. Source: www.Jeremy Suyker.com

these two fields. With regard to the substance and nature of these two concepts, we can roughly achieve a common language in the context of architecture and zurkhaneh music. Based on findings, quantitative characteristics of physical nature include:
• Height of sound and dimensions of visual signs
Modal centrality in music is something based on which other notes or vocal heights are measured. "There is a central voice called "Tonic" which seems to attract melody sounds; and in scientific investigation of the sounds composing the melodies, height of all sounds is measured relative to this central sound" (Samimi, 2008: 344). In other words, melodies move in a certain range and will finally return to the center where all notes rotate around it (stop note). As previously mentioned, all three phonetic samples of "heroic melody" rhythm have preserved their modal centrality and the melodies descend to their stop note.

"Target of all architectural spaces is human and inevitably, he measures all aspects of visual symptoms relative to its body. With regard to the definition of central sound in music, we can consider the role of human dimension in visual symptoms like the role of stop note (tonic) in collection of sounds" (Ibid, 345). As the conducted studies and surveys show, zurkhaneh architecture is considered as one of Iranian architectures which has always enjoyed being "popular". This confirms the principle in zurkhaneh architecture that the dimensions, proportions and what has been interpreted as visual signs are directly proportional to the human dimensions. Except in cases of proportions at the entrance where issues beyond physical performance were intended, a complete coordination with human organs is observed. And the existing understanding of the three assessed types indicates the same matter.

• Vocal intensity and distance of visual symptoms: Vocal intensity (dynamics) in music is assumed equal to visual symptoms (perspective) in architecture. "One of the quantitative features of sound is its intensity which is used as a tool for dimensionalization by composers." (Ibid, 345). Indeed, by lowering or increasing the sound intensity, the musician creates an atmosphere as if the melody is moving from the surface to the depth or vice versa. In phonetized samples, no contrast is distinctly seen in sound intensity (dynamic) and the songs are usually sung clearly with high sound intensity. The song ignores the rise and fall of voice and is satisfied with a strong dynamic. Hence, it can do its task and excite the athletes as much as possible.

"Architects use sudden or gradual distance changes of visual signs towards human to provoke special feeling in compilation of their work such as planning the views with repetition of visually identical views on a track with constant intervals together. When viewed from any point, visual signs gradually become smaller and smaller by getting away from human" (Ibid, 348). This can be analyzed in zurkhaneh architecture as such: the whole space where sports and other events take place is an integrated space. This provides a single view rather than multiple perspectives before the audience. Due to tendency towards the circular form, distance of visual elements at any point of the zurkhaneh is almost equal to the other points and presents a single view before people. In this common language, sound intensity has limited diversity and mobility proportional to visual signs and architecture perspectives which can be regarded as a simple expression of architecture and music.

Durability or stretching time

Durability or stretching time analogizes sound in music to the speed of audience eye movement on a visual sign. By investigating the rhythm of phonetic samples that were previously studied in the melody rhythm section, we found that all three samples follow the same rhythmic phrase.

Melodies are expanded and finished with use of only two time stretches. This minimal use of time stretches represents the lack of melodic complexities and creating unity and simplicity together."

"In architecture, the architecture can somehow control the speed of the audience eye movement on visual cues through the use of intermediaries such as light and shadow or adoption of features inviting to motion or rest" (Ibid: 349). Simply of zurkhaneh architecture with minimal use of volumetric games and light and shadow leads to minimal movement of the eye and focuses the eye on the events inside the ring. Eye does observes little ups and downs in the space and visual architecture signs leads the viewer's eyes to the center of the ring. This is achieved both in the elements and volumes as well as concentration in the interior space.

Thus, the durability time or extension is seen correspondingly and equally on both objective and subjective aspects of both musical and architectural fields of zurkhaneh which expresses a common truth that these two intend to express and that is making simple and understandable as far as possible and avoiding any diversity and luxury in both fields.

Context

After studying the quantitative characteristics of physical essences, their qualitative characteristics are examined. According the findings of this article, timbres are aligned with colors and textures and materials in architecture. "Sound is unmeasurable but identifiable. We call it as the qualitative quality of sound and it is nothing but color or stamp or type of sound which is directly related to the sound generator tool, namely instrument" (Ibid, 350). In music, what distinguishes one instrument from another is its timber. These timbers are the instruments which create orchestral coloring and instrument diversification. By putting the timbers together, an instrumentation based context is created. Zurkhaneh music lacks such textures resulting from instrumentation because there is only one instrument (zurkhaneh rhythm). Zurkhaneh rhythm instrument is in the category of membranophone or skin-sound

musical instruments. Although these instruments have harsh timber and lack melodic variety, but have high rhythmic potential. This harsh and monotonous timber leads the type of zurkhaneh music to a simple, uniform, and epic sound, a texture without timber with an unadorned but powerful and evocative sound. This can be studied in zurkhaneh architecture in two scales. In larger scale, texture obtained from gymnasium architecture volumes is raised which uses lower volumes with more simplicity and on a smaller scale, texture exactly means the type of materials. Although local materials of each region have affected the texture of architectural surfaces, but the dominant approach has been reducing decorations and achieving a smooth and simple texture. In music and architecture texture, tendency towards simplicity and a uniform texture is evident. Timber effect of zurkhaneh rhythm along with its simplicity corresponds to simplicity of the volume and materials used in zurkhaneh.

• Shape or motif "When composers want to capture musical idea into material body, they use a set composed of repetitions of a certain sound or various sounds with a certain tension called motif. In fact, motif is the smallest meaningful musical unit and based on the system that is developed by the composer and using knowledge, starts in the form of time, transforms, is repeated and finished. In architecture, "shape" as the smallest meaningful unit plays a role like motif in music. In fact, figure refers to a set of visual cues with recognizable identity which is understood via geometry. The forms can also accept changes in time, be repeated and expanded or reduced " (Ibid: 352).

In zurkhaneh music, music do not benefit from mutific expansion because song is usually sung by weight and moves in a rhythmic space and melody expansion does not exceed a specified range. Melodies expand from a higher degree by their objective repetition.

Using such musical development maintains unity of the work and at the same time, leads to melodic diversity as well.

In zurkhaneh architecture, if we consider the recurring motif or figure as the space review unit and regard figure as the space (as mentioned earlier), spatial integration in this architecture has realized being in one form or motif. On the other hand, we may have a formal and two-dimensional view towards figure and motif. Study of zurkhaneh architecture confronts us with only two or more Euclidean shapes (circle, regular polygon of the ring, and rectangular square) repetition of which makes the entire architectural space. Architectural integrity of zurkhaneh can be simplified into several repetitive forms and shapes which have provided its athletic function (Fig. 2).

Thus, both zurkhaneh architecture and music use limited models which shape themselves and thereby zurkhaneh with minimal variation in motifs through their variation.

Discussion

Architecture and music have been studied in this research as parts of a whole. As mentioned in the introduction, holistic thinking of the past people have had all the tools and equipment necessary to reach goal in the framework of their mind and used them to approach their objective. Conducted research shows that this goal is followed in zurkhaneh architecture and music in various forms depending on the nature of each of these two components. In more concrete and tangible aspects of the zurkhaneh building architecture, we are faced with two distinctive features: First, simplicity of components and humanism of zurkhaneh building and second, direct and indirect references to high and sublime concepts. The first feature makes zurkhaneh a part of the city which is placed simply beside mosques, markets, and therefore the whole urban fabric. The second feature draws our attention to another dimension of this exercise, the dimension which seeks to mention, remind and repeat things other than sport and its belongings. In another aspect, music plays the subjective and abstract role of the final goal of people and builders. Zurkhaneh music tries to remain greater impact in the minds of listeners

with simplicity and minimal musical materials. For example, in the analysis of three phonetized samples, it was observed through research that music is formed and extended with minimal use of main music elements such as time stretching (with mimimum black rhythmic patterns and harp), sound height (only using the songs in the right fourth distance range) and sound intensity (non-use of diverse sound intensities and an almost uniform dynamic). The same results are obtained in search of a common language of both the architecture and music (Table 1).

Selected forms and elements of zurkhaneh music can be considered corresponding to the simplicity intended in zurkhaneh architecture.

That is why they use repetitions of simple and short motifs in melody trends, lack of song decorations, and masnavi form of poetry for easier understanding. Hence, they can approach the goal through this attracting, digestible, and tolerable simplicity for general audience.

By reference to the history and doctrines that have continued till now, what has been considered as the ultimate goal in zurkhaneh is education of athletic character, chivalry and manhood. The study shows that the holistic thinking of zurkhaneh founders made the whole entity of zurkhaneh for one goal which was nothing but education of human morals and manners. Witnesses to this are the forms and meaning of architecture and music in two objective and subjective dimensions of this single whole.

Table 1. Common language of architecture and music based on quantitative and qualitative components of their essence. Source: author, 2015.

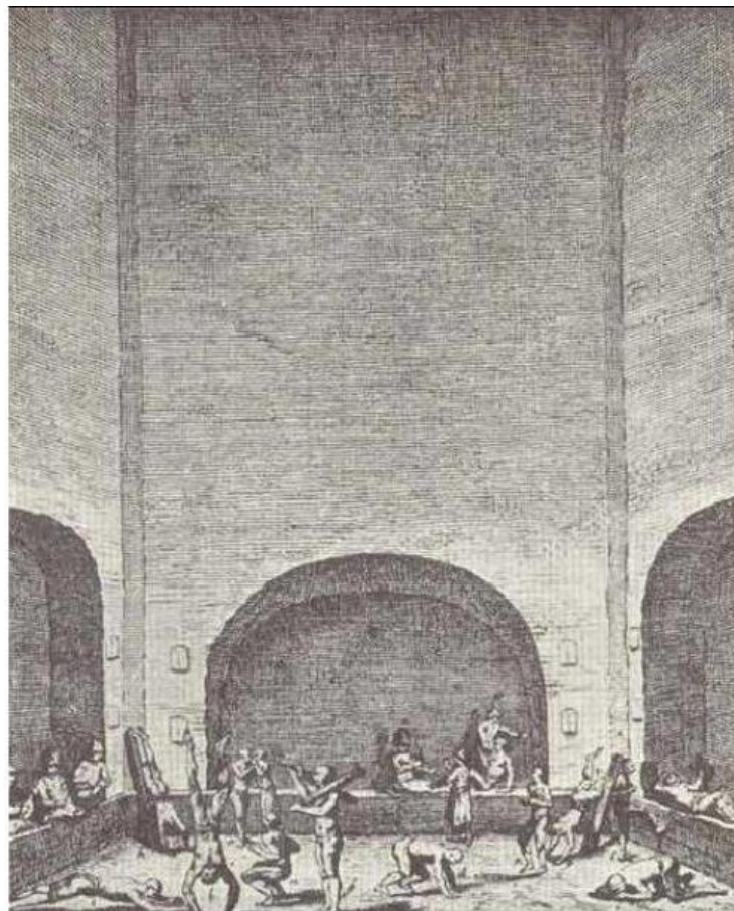|	Substantial features	Architecture	Music
Quantitative characteristics	Height and dimensions	Design and placement of forms in human scale and dimensions	Circulation of notes around a central note and follow a sound range
	Intensity and distance	Lack of various distances and perspectives in space	Lack of rise and fall in sound intensity in songs and rhythms
	Duration and extension	Non-rotation and high movements of the eye in the space due to volumes, light, shadow, etc.	Compliance of all sounds of a certain rhythmic phrase without time
Qualitative characteristics	Fabric	Creating a simple uniform texture with use of materials and volumes	Use of a percussion instrument which simplifies creation of the timber or vocal texture
	Shape or motif	Use of simple geometric volumes and continuous space	Use of a melodic and rhythmic motif for songs and beats

Fig. 2. Zurkhaneh by Danish Carsten Niebuhr. Although this figure shows the personal and overall impression of the painter, but what is clear about it is the simplicity and repetition of forms which shows the perception of a foreign painter of the zurkhaneh space. Source: Ensafpour, 1974.

Conclusion

Study of zurkhaneh architecture and music with regard to the holistic thinking of the person establishing it corroborates that zurkhaneh as a cultural and architectural work and zurkhaneh music as a part of this integrated whole is an educational and didactic work. Zurkhaneh has a didactic architecture because it is placed with its quite simple and humanistic structure among other urban elements dealt by ordinary people and in the second phase, it includes educational and didactic work in all its components. All of its components including form (short entrance), customs (sitting on the platform), and symbols and signs (images of great people) all follow an educational goal, whether religious or moral and customary. Zurkhaneh music is also didactic because it contains simple motifs and forms and convenient melodies, and rich motifs of Persian music and inspires the audience by educational poems through repetition and emphasis on these forms as well as use of simple poetry format (Masnavi). Zurkhaneh is a place for training athletes and in this regard, architecture and music are the means which have used their best forms and tools for this education.

Endnote
1. Harbor

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