

A CONTEXT OF THE MUSIC AND POETRY TYPE

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ABSTRACT

The relationship between arts is a subject always drawing the attention of many individuals. Architecture is an art exerting an influence on the audience through its form and shapes and music reveals such effects on the audience via creating various sounds. Considering the perception and reception of both of these two arts by the entire human senses, it is possible and highly important to display their interrelationships within the format of comparative research. So their relationship can be an accomplishment for the present study. Based thereon, as an important subject in these arts and, especially, in architecture, the process of space creation can include cases showing that the relationships between these two subjects can be exploited more tangibly and more fluently. According to the fact that the bond between these two arts features qualitative and abstract characteristics in many of the cases, the third art such as poetry or dance can be utilized as the intermediary art to ease the comparison process. Surely, in relating these factors and in their formation, creativity which is per se a common principle in all of the art majors plays an essential role in matching these inter-art concepts. In the process of converting musical melodies to architectural forms, such an art as poetry and/or dance that is per se deeply interlaced with musical notes serves a special function and causes the creation of various states like sublimation, fascination, illusion and so forth with its meanings thereby to eventually exert a considerable effect on the architectural form. Because architecture is per se stemmed from creativity, its form can also be originated from creative emotions and feelings. In this regard, the effects of these arts on one another and methods of their formations are some other accomplishments to be made herein.

Keywords: form, abstraction, music, poetry, architecture

INTRODUCTION

When it comes to the relationship between architecture and music, the first created subject would be the spatial and temporal nature of these two arts. How can music as an art in the course of time and moving through time in an unlimited manner and keeping the audience in a waiting situation at any single moment for the future time can be related with architecture as an art that per se defines place and can induce the audience with a new experience at an instant and/or with the audience's decision?

When talks are made about art, the topic is surely discussed that possesses characteristics incorporating all of its subsets. These properties are beyond the material and physical aspects of our peripheral world and provide answers to many of the questions regarding the relationship between these two arts (architecture and music). Concerning these two arts, the first attribute can be harmony. And, of course, by harmony, a topic transcending beyond rhythm and regular coordination in implementing architectural form and music is intended. Harmony is a factor like the role of structure in stabilizing the architectural form for creating a

special sense in the audience and a supporter without material and physical existence such as “staff” in music.

When the architectural form becomes responsible for the human beings’ sensory needs, “structure” applies all the stability regulations in its general and detailed forms like all of the decorations and setups so that every individual component of it respond to a generality the goal of which is architectural form; this goal can be in accord with a musical experience with its musical melodies being comprised of notes all of which seek supplementing one another in the course of time so as to induce a special sense that per se carries the human being away from the limit of time and space and can exert such an effect that drag the person to the world of ecstasy and imagination.

The identical effects of these two arts on humans can be indicative of the interrelationships of the two as well as a sign of the ability to use one in the process of creating the other. In line with this, the investigation of the principles and basics of architecture and music for achieving a sort of common language has been considered herein as the most important goal of the research. Thus, familiarity with the properties and bases constituting the form, music, poetry, sound, and melody will be discussed in the relationship between architecture and music regarding this topic. How can music influence architecture? Can the architectural form be defined based on a musical melody? These are but some questions that are dealt with in this article.

In between, a more comprehensive discourse can be achieved based on the analysis of Schopenhauer’s sayings about music that “all of the arts eventually open a way into abstraction and non-concreteness”; considering this definition, a large number of similarities can be discerned between the arts, especially the music and architecture that are discussed in this compilation, because artistic imagination and the artists’ mental forms get themselves to the border of abstraction and non-concreteness in the architectural creation via such an element as “imagery” that is attained from the application of symbols of objective forms in the building structure; this is the locus wherein music enjoys a lofty position (Falamaki, cited in Gholam Hussein Nami, 2008, p.11).

In all the states, architecture is capable of shouldering the role of a cultural-social communication tool by means of its special shape or form in its specific expression through the use of its provoking power or via the symbols it contains to finally pave the way for finishing the sublimity role in a given social environment; and, this is the path that music also takes and this is why it arranges sentences, themes, and motifs within the format of sonata, symphony or fugue in a special order following the regulations rooted in experimental premises and relying on the natural mathematics (Falamaki, 2008, p.304).

Perception of the space and place in a physical way (meaning the perception through various senses) and spiritual way (meaning the mental perception and comprehension of the spiritual features) is the goal repeatedly taken into account in the history of our architecture. The spaces formed inside the large mosques’ domes that are lofty and vast have not been solely constructed for echoing the euphonious sound of the holy Quran and/or holding mourning, lamenting, dirge and preaching ceremonies and rites. These spaces embrace the corporeal life beyond their needs and their loftiness cannot be downgraded to the physical demands of the believer groups. These spaces reflect the power of sublimation and sacrosanctity for the



invitation to which mosques have been constructed or, in one sentence, these large round spaces have been created to be identified with the spiritual prudence (Dibaj, 2004, p.59). In line with this, music can be the factor effective in the inducement of this sense and finally in the process of creating an architectural context.

Study Background:

1. Art:

Art is the creation of beauties in describing things, introducing human beings and identifying human values.

It is presently seen that there is a need for real art, especially music, in our society. This is the need of the generation that wants to recognize its national identity and customs and culture now (Nasirifar, cited in Hussein Alizadeh¹, 1998, p.692).

2. Form:

Undoubtedly, one of the most important basic concepts of art is form. This word's concept is amongst the self-evident truths identical to such fundamental concepts like space and time and it can be realized as a common element in all of the various artworks based on its interpretation as a form and shape. In line with this, displaying the form in every art is the showcasing of an effective factor in matching the results of the artistic constructs.

3. Music:

Music is the expression of human feelings and emotions. Many of nature's manifestations create musical tones. The sound of a waterfall, rainfall, wind blowing through the leaves of the trees, the chattering sound of the nightingale and other birds, the sound of the human beings or animals' footsteps each is a tone of nature's chant. In the continuation of imitating from nature, human beings gradually noticed that the regular sounds influence the regulation of their work and incitement of their activity. Then, they began increasing their power for their difficult tasks like moving the large stones through taking advantage of harmonic songs and they also started chanting in worshipping the gods and these gradually were turned into religious songs and singing in choirs. In nonreligious music, human beings seminally paid attention to dance songs and percussion songs. In the emergence of the primitive songs, the human beings come to this conclusion that the percussion and musical melodies came about first; then, to ease the singing, lyrics were constructed on them. It is also the same way that the local melodies are currently coming to existence (Nasirifar, 1998, p.479).

3.1. Musical Sound:

Music is constructed of sounds. Musical sounds have measurable properties like "loudness", "lowness", "lengthiness", "shortness", "strength" and "weakness" and the quality of their expression but not the assessment of such attributes as "darkness", "brightness", "harshness", "softness" and so forth. The sound's specific indicators can be classified in this way: pitch (relative highness or lowness), resonance (color and quality), duration (relative length) and power (relative strength and weakness). These are factors that the (creative musical) composer



¹ Teacher and player of string

needs to know for expressing his or her intention in a musical language alongside the other classifications and properties of the musical instruments as well as another set of the factors like “melodious line” and “plan and shape” and “sonic painting” (Wink and William, 1987, p.27).

3.2. Staff in Music:

The ascent and descent of the notes are shown by the staff that is delineated by five carrier horizontal lines in identical spaces from one another with each line and the distance between two adjacent lines being indicative of a degree of tone. The staff is calculated from bottom to the top and the notes drawn on them are read from left to right respectively indicating bass and treble (Zandbaf, 1993, p.6). The displaying of the notes on the horizontal carrier lines is like the illustration of the view of an architectural form on the plane and space of human vision.

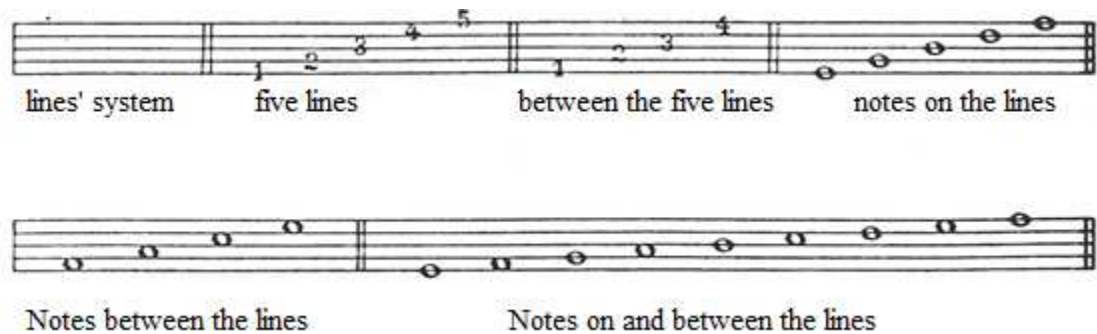


Image (1): staff (Zandbaff, 1993, p.6)

4. Poetry:

Poetry is nothing other than musicalizing of the words that seemingly does not need to be defined (Shafi'ei Kadkani, 2004, p.8).

5. The Effect of Music on Mind:

As a perfect art, music is not only heard but also viewed: music is perceived in the form of scenes and images by means of what mystics call “eyes of the soul”. In the mystical tradition, music does not solely include mental images produced using a hypothetical imagination (which is not a cerebral faculty) rather it incorporates forms that are autonomous and independent and can even take a sort of soft concentration and materiality. This way, mental images are enlivened by the music and these images per se encompass sounds and the interaction between these factors and their perception levels are yet to be completely clarified (During, Jean, 2003, p.121).

Music is the language that works with sounds instead of letters. The same way that two or several letters make words and the same way that words make sentences, one or several sounds in music make a metre² and a musical sentence can be extracted from several metres. The difference between the musical language and the oral or written language is in the idea that every lingual term is associated in the mind with a specified or guided signification or meanings whereas every metre or constrained sentence does

² If a musical sentence is divided into equal units (in terms of the temporal duration), each unit can be called a metre.

not have a special concept and meaning in musical language and everyone can perceive from a metre or a musical sentence as far as his or her inference power and personal state allows. Music is an emotional or mental or abstract language wherein every sentence is qualified for different meanings to the same number of listeners.

Considering the abovementioned materials, one point is identical and shared in both of these two languages and that is the tone of expressing the words and the quality of extracting the sounds or melodies that are indeed influenced by the very phonological properties of poetry and musical tone and the way in which they are given a specific metre referring to a special meaning. These are the effects emphasized by architecture through its forms (Mallah, 1989, p.12).

5.1. Music and Creativity:

Creativity is the process of demanding an optimal mental position in which the brain can think correctly. Thus, both of the brain's hemispheres must be active. Music can elongate the duration of this process, i.e. render persistent the optimal mental position. The universal use of music in all of the cultures for changing the mental positions has given rise to this belief in the cultures and communities that there is a strong and close relationship between music and creativity.

Some of the researchers believe that creativity is corroborated by music but the various musical styles have different effects on individuals. The reason for this issue is that music is largely dependent on the psychological and mental status of the individuals and creativity advances through time. However, it has been made clear in the studies performed in this regard that the musical instruction for a year considerably increases creativity hence exerting a tangible effect on the formation of architectural form that is per se the result of a creative process (Jensen, 2008, p.67).



6. The Effect of Poetry on Mind:

Literature serves the transferring of a highlighted experience; highlight in that it has taken a concentrated and shaped form. The literature's duty is not speaking about an experience with us rather it is responsible to allow us imaginatively take part in the experience. Literature is an instrument allowing us to live more perfectly, more deeply, more richly and more consciously through imagination. Because poetry features a particular stance in literature, the reference to "poetical melody", interpreted as a "special rhythmic metre sitting on a given array of words with their specific concepts", is reflective of more objective similarities between various arts (Laurence Perrine, 1997, p.13).

The comment made by Gaston Bachelard³ that "architecture features a sort of fundamental poetical structure and the spaces' fundamental structures cannot be given a physical manifestation" might be true. But, since the specifications of the environment wherein the mankind works are inferior and meaningless and because the human beings' perception of their existence is not so much clear, it is hoped that architecture can be intermingled with the real sense obtained from contact with the

³ Gaston Bachelard is a French philosopher (1884-1962) whose famous book "space poetics" especially approaches the architectural concepts.

deepest aspects of human nature. In between, the reference to the architectural flights in the world of imagination through such architectural allegories as the decorations in various buildings (such as different kinds of vault and arch works, plasterworks and so forth) as well as the reference to the role of the abstract world in architecture that causes mystic mental perceptions of the architectural spaces and buildings can be known as examples of these poetical structures (Tado Ando, 2002, p.45).

7. Position of Sound in Music-Architecture Link:

- 1) Force or Intensity: it is the stress or accent and/or specification of a part in an artwork which is called intensity or force and/or strength thereof. The same way that stress enjoys a special value in words and changes the meaning of a word in proportion to the quality of being placed on a syllable thereof, it is also of particular importance in music, architecture, and painting as well as in other arts.
- 2) Gravity or density: heaviness or density reveals itself in music in three forms: a) movement; b) orchestra organization (if all of the musical instruments take part in an orchestra, it will be capable of performing heavy works like the one by Parsifal Wagner but in case that a few musical instruments take part in the orchestra, the performance would be light or the so-called musique legere such as some overtures and preludes or introductions); c) genre or kind and/or quality of the musical instruments' sounds. For example, the genre of oboe or flute's sound features a special density exactly like the density of the hornpipe's sound and softness of the sound produced by a shepherd's reed. In architecture, density or gravity is well evident and it is shown by taking advantage of the horizontal lines creating a space inducing the audience with a feeling of gravity.
- 3) Duration: the length of the persistence of a sound is called duration (durée). Duration is usually manifested in architecture via repeating the coordinated and/or identical structures and their vanishing in line with arriving at the perspective's turning point.
- 4) Peak or hauteur: in music, hauteur refers to the highness or lowness or the pitch or the shortness and lengthiness of a sound and/or a musical work. In architecture, the highness and shortness of a building's part and the proportions between them are interpreted as hauteur (Falamaki, cited in Hussein Ali Mallah, 2008, p.42).

8. Position of Melody in Music-Architecture Link:

Melody or tune is the main material of the music. Melody has been derived from the Greek word Melos meaning continuity and it is defined as the harmonic and continuous tones sounding pleasant to the ears.

Melody originates from the human beings' internal emotions and reactions and indicates their sorrow and happiness, excitement and tranquility of the psyche. It is due to the same reason that a sad tone can be readily distinguished from a rapturous melody because the same emotions that have existed in the composer of a song are also created in the audience upon hearing (Hasani, 1989, p.15).

Lyrical melodies tend towards fluidity and smooth flowing. They move easily and freely and usually more or less heavily. Due to the same reason, melody is more suitable for songs and reciting. Being lyrical or song-like is generally caused by several factors: melodious sounds are close to each other in terms of hauteur and the sounds' height



field (from the lowest to the highest sound) is limited and their rhythm is simple. All of these factors relatively make melody lyrical and ready for reciting (Wink and William, 1987, p.66). Melody creates different emotions in the listener through its high and low sounds. Similarly, architecture stemming from these rises and falls can create the same feeling in the users of a space.

9. The smilarity of Architecture and Music as Viewed in Philosophy:

Table 1: similarities between music and architecture (Falamaki, cited in Hussein Ali Mallah, 2008, p.89)

Architecture	Music
Space in architecture	Space in music
Enjoyment of color in architecture	Enjoyment of color in music
Gravity and density in building	Gravity and density in music
Repetition of motifs in building	Repetition of motifs in music
Form in architecture	Form in music
Color in architecture	Color in music
Psychological matters in architecture	Psychological matters in music

10. Introducing the Buildings Relevant to the Present Study's Subject:

Naqsh-e-Jahan Square can be perhaps imagined as construction that not only the forms of its various buildings but also the interior decorations in them are stemmed from Iranian poetries and musical instruments containing God-worshipping and extolment themes. For instance, the following verses are consistent with the elements and ornamentations in the building of Masjed-e-Shah in Naqsh-e-Jahan Square.

"I have stretched two hands of petition towards the sky so that I might fly up by the feathers of your sadness to the galaxies"



Image (2): minarets pointing to the sky and then a huger building facing the galaxies; Masjed-e-Shah in Naqsh-e-Jahan Square (Source: www.persianminds.com, 12/11/2011)



“Like a water lily, I will twist about your feet so that a flower may blossom from every part of my body head-to-toe in your air”



Image (3): twisting ornamentalations along with soft and curved lines in mosques in Naqsh-e-Jahan Square (Source: www.persianminds.com, 12/11/2011)

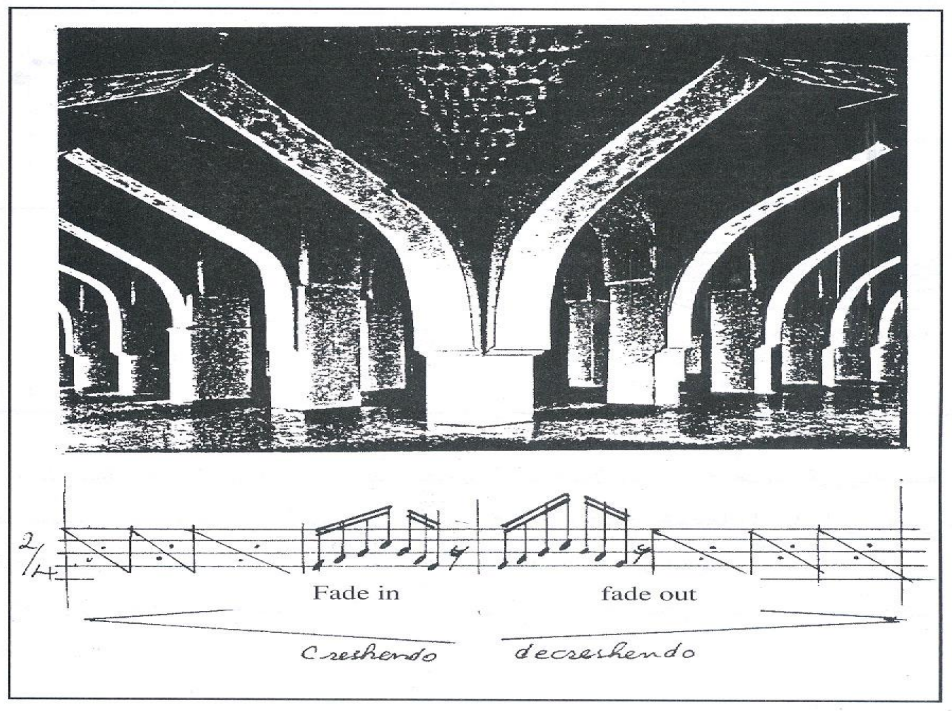


Image (4): symmetry and fading (source: Seraj, 2011, p.268)

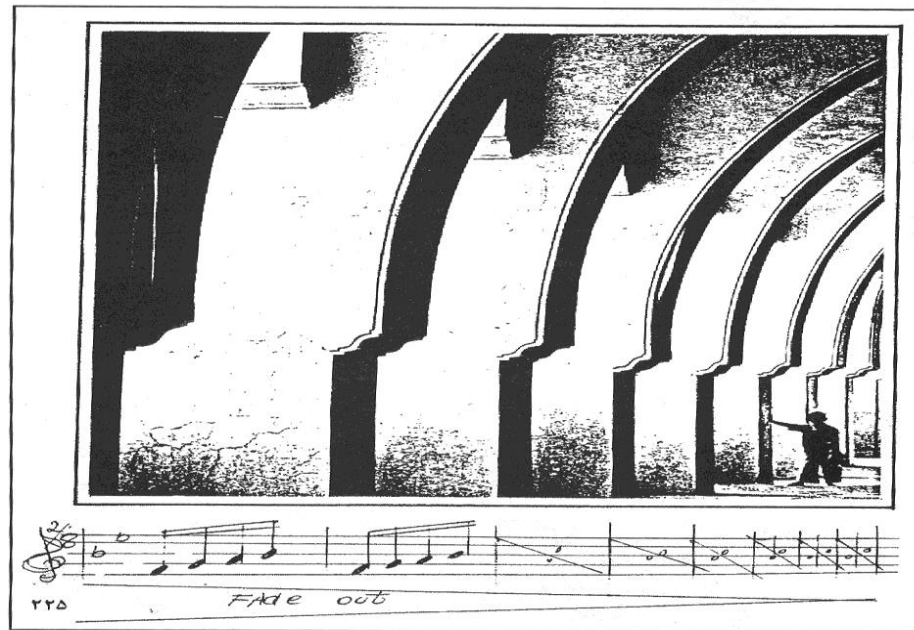


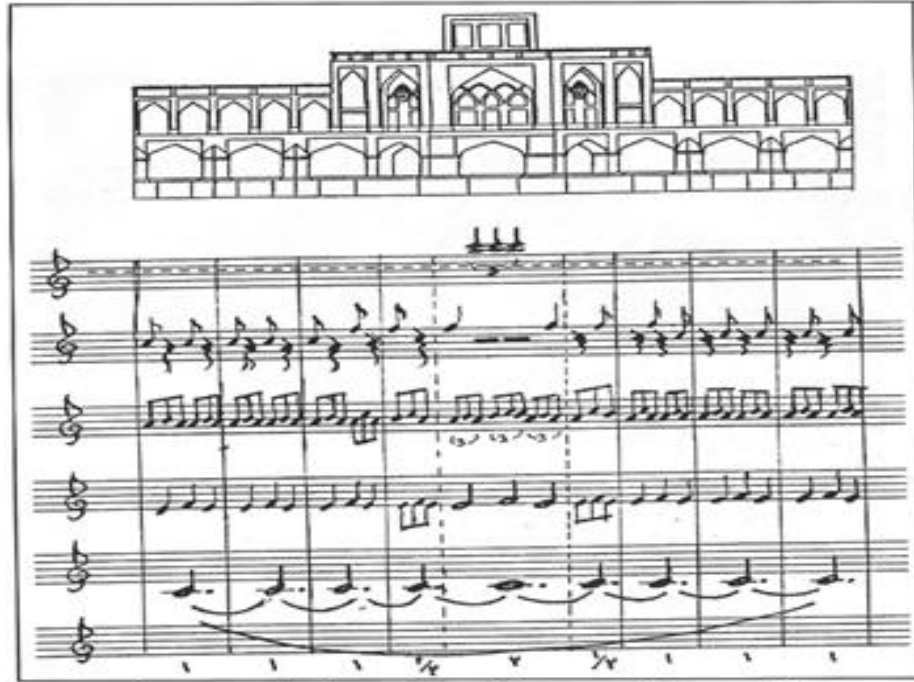
Image (5): symmetry and fading (source: Seraj, 2011, p.268)

The order of the notes' placement in Chahargah Musical Mode and its characteristics like the notes' distances in various metres, the soft phonological plays in the climax occasion and/or the descending modes and even the consecutive notes the structure of which reflects the shades of arches and vaults on one another all indicate the similarity between the Chahargah musical mode and vault-working in the western porch of Isfahan's Main Mosque.



Chahargah Musical Mode; vault on the porch in Isfahan's Main Mosque
Image (6): musical mode and architectural form (Seraj, 2011, p.274)

The temporal intervals and the duration of the notes and their ratios, as well as their symmetrical placement in Mahour musical mode, indicate the consistency with the architectural form in Khajoo Bridge.



Mahour Musical Mode, Isfahan's Khajoo Bridge

Image (7): musical mode and architectural form (Seraj, 2011, p.273)

It is evident that the showcasing of the effects by music and architecture on one another goes beyond the formic similarity of the musical notes on the staff to the facades in the architectural buildings. Amongst the other buildings wherein musical principles have been used in their designing is the George Pompidou Center.

Richard Rogers states that “its façade is rock music; every individual component of it is excellent and, in the meantime, flexible, as well as open”. This issue indicates the match between rock music and façade in George Pompidou center without the similarity of a certain note with its external form but with sensory likeness. Furthermore, Sufi Building the concept of which has been inspired by a sense of flying in Mowlana’s poems and Sufis’ dance is another specimen of the arts’ interrelationships.



Image (8): George Pompidou Center; main façade, Reneso Piano, Richard Rogers and Gianfranco Franchini (Source: www.sarierelar.blogfa.com, 2012)



Image (9): Designing coordinated with musical note-writing; Zaha Hadid (Source: www.dezeen.com)



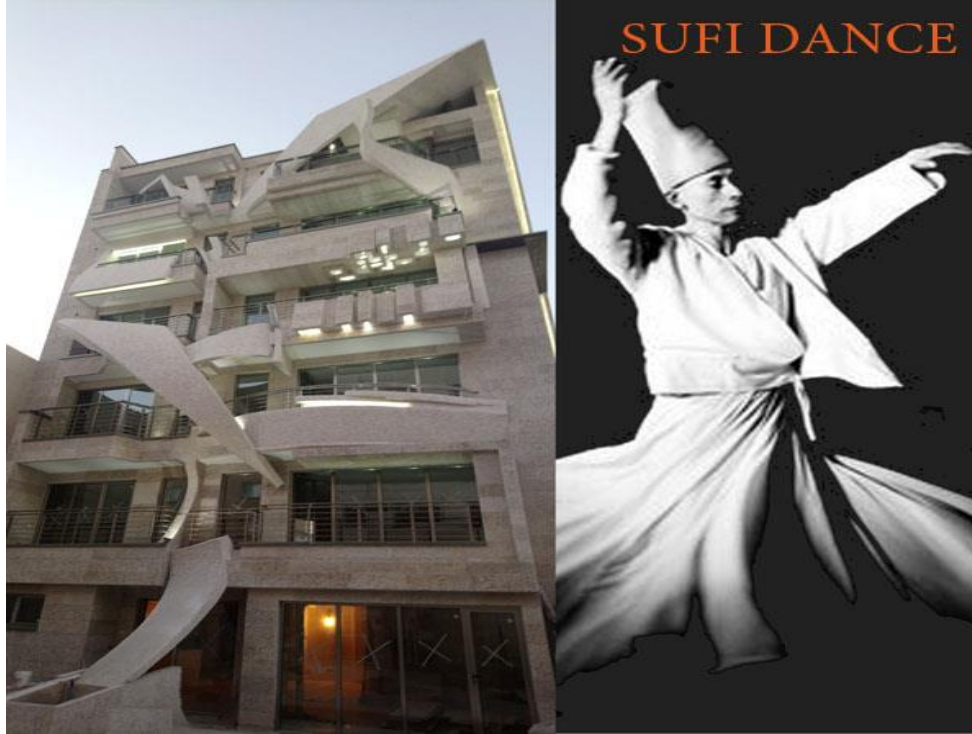


Image (10): Sufi dance-main façade of the residential building, Isfahan, Iran (Source: Pouyan Shahtalebi, the author, 2018)



Image (11): Sufi dance-main façade of the residential building, Isfahan, Iran (Source: Pouyan Shahtalebi, the author, 2018)

Study Method:

In the present study, use was made of library and documentary research. Considering the subject's qualitative nature and the necessity for gaining a deeper insight of the interdisciplinary communications and the existence of various factors in such studies, the

study sources include books with concepts related to aesthetical perception, musical basics, and sound premises, hearing sense, sensory relationships between arts and so on.

Architectural Designing Solution Based on Music and Poetry:

In the architecture world, dimensions, as one of the three quantitative properties of the visual signs, are equivalent to the sounds' hauteur in music. In every architectural building, the visual signs are placed with diverse dimensions in certain places and the circulation of the spectators' look at these signs from inside or outside of the context leads to the perception of the architectural space. Every architect uses particular dimensions for creating his or her artwork in line with giving rise to a context consisted of visual signs with human dimensions being willingly or unwillingly the foundation of these sizes' assessment. That is because the audience of the architectural spaces is human beings hence all of the dimensions of the visual dimensions should be incumbently assessed regarding the dimensions of the human body. Considering the definition offered of central sound in music, the role of the human dimensions in the visual signs can be realized as one resembling the role of tone in a set of sounds. In fact, it is by the creation of various dimensions that a particular potential sense can be incited in the human beings with the difference being that the composer of a musical work can ensure his or her intended specific proportions through his or her repeated performing of the work whereas it is only the dimensions of the visual signs that are stabilized in a building in architecture and the dimensions that are the bases of assessment undergo changes with the change in the audience. Due to the same reason, proportions would not remain identical when the building is visited by human beings with different bodily dimensions hence a single and identical sense would not be offered. This is why the dimensions of the majority of the buildings (other than those specifically designed for children) appear extremely large to the children. It is probably this same disproportion between the buildings' dimensions and the children's body dimensions that causes them to seek refuge in more surrounded spaces. One of the quantitative properties of the sound is an intensity that is used by composers as a means of granting dimension to the sound. In creating a musical work, the abrupt and gradual change in the intensity of the sounds enables provoking certain emotions in the audience. As an example, the gradual increase in the intensity of the sound, especially when it is accompanied by augmenting the hauteur, enables inciting a sense of excitement in the listener and this can result in reducing the audience's spatial-mental distantness to musical sound. Or, the gradual decrease in the sound intensity can be tranquilizing and inviting to a residence and be concomitantly accompanied by a mental sense of spatial distantness to the sound. The sudden changes in the sound, as well, can be surprising and prevent the uniformness of the work to some extent. This process is also discernible in literature and poetry. Like in music, all these moods and states can be revealed by changing the proportions in architecture (Falamaki, cited in Shiva Samimi, 2008, p.345).

In architecture, a form is shown through taking advantage of various organizing and ordering factors and instruments. In music, as well, a form is organized by acoustic factors with regular harmonies and composition, as well, arranges a combination of its various factors into a unified form. Unity and diversity can be created in music by tonality (which is indeed interpreted as a framework determining the components of a melody such as tempo and notes and being like the selection of a proper angle for drawing on a painting tableau) as well as by



opposition and contradiction in the same way that this unity and diversity is applied in architectural art by means of various instruments.

When listening to a musical composition, we try to follow its movement the way it is expressed in its form. In this case, there are many high and low points as well as ebbs and flows within the area of a musical part while there is usually seen one peak point in a building in whole. This building might have a fast or slow pace or it may be direct or indirect; we hear the entire musical part the way it is expressed in its “scheme”. There are rises and falls, ebbs and tides and fluid movements are adequately existent in this line in the entire artistic composition. But, more importantly, the movement line is constructed in the general routine in such a way that the musical point reaches a perfect climax and descends afterwards in the continuation of the movement. The architectural form of this general line might be gradual or abrupt as well as direct or indirect. The ascension may seem somewhat unexpected. The movement may ascend and then descend and then immediately ascend again as if steps are simultaneously taken back and forth. Descent from the peak point might be slow or sudden, like in dancing art. The perception of these concepts brings testimony to the necessity of creativity and the architecture originating thereof and the form stemming from it would be naturally under the influence of these creative feelings and perceptions. Considering the discussions related to comparative arts and the designing process and their formation stages that indicate the transition through three stages, namely 1) perception; 2) analysis; 3) creation that respectively fall on three apices in the creation triangle (Falamaki, cited in Gholam Hussein Nami, 2008, p.21), the common interdisciplinary properties should be taken into consideration more than before. As it was investigated in the present study, the relationship between these three stages can encompass objective similarities between various arts if established with the artist’s creativity and attention to the common interart characteristics.

CONCLUSION:

In general, the main and coordinated factors possessing an abstract nature cause the definition and creation of an art of a type based on the specific properties they possess in various art fields and this is an important axiom in arts, particularly in music and architecture, that is applied in architectural designing and musical creations. The main factors of unity lie in the metric diversity, metric and percussion changes, stability and instability, back-forth motions of the musical sentences and others that cause the rises and falls in the architectural art and delineate a special mental image in the spectators and/or audience hence indicating the relationships between these two arts outside the temporal and spatial domains.

Based on the perceptions and analyses carried out on poetry and musical note, we can reach a context that in its generality possess a proportionate form impressed by the musical structure and poetry. Attention to the architectural proportions in terms of height as well as to the high and low points in the music can create a common sense in the user of space and hearer of music or poetry. This is indicative of the deep match between architecture and music as well as reflective of the idea that these two arts can become the idea and concept of one another and exert identical effects on the audience in various states and modes. The idea as to whether the architectural form can be exactly formed by the components and pillars of a musical melody or not is amongst the subjects that can be investigated within a research paper.



However, as held by Kant, proof, and evidence cannot be applied to ensure the veracity of a taste-based judgment and there is an obligatory paradox between the argument that eventually leads to taste-based judgment and rational argumentation that takes the process from the introduction to the conclusion based on logical reasoning.

References

- Ando, Tado, (2002), “poetry of space”, tr. Muhammad Reza Shirazi, 1st ed., Tehran, Gam-e-Now
- Azimi, Muhammad Javad, (2009), “melody of Hafiz’s poems”, 1st ed., Tehran, Academic Publication Center
- Dibaj, Sayed Musa, (2003), “poetry and our house”, 1st ed., Tehran, Payvand-e-Now
- During, Jean, (2003), “spirit of melodies”, tr. Sudabeh Fazayeli, 2nd ed., Tehran, Jayhun
- Falamaki, Mansour, (2008), “architecture and music”, 3rd ed., Tehran, Faza
- Hasani, Sa’adi, (1989), “musical interpretation”, 2nd ed., Tehran, Safi Ali Shah Publication Institute
- Jensen, Erick, (2008), “the quality of music’s effect on mind”, tr. Azar Omrani Gargari, 1st ed., Tehran, Virayesh
- Mallah, Hussein Ali, (1989), “Hafiz and music”, 1st ed., Tehran, Faza
- Nasirifar, Habibollah, (1998), “the euphonious song of the flowers”, 1st ed., Tehran, Safi Ali Shah Publication Institute
- Perrine, Laurence, (1997), “about poetry”, tr. Fatemeh Rake’ei, 2nd ed., Tehran, Tehran’s Ittila’at Publication Institute
- Saleh Ramsari, Muhammad Ghasem, (1988), “Bohur Al-Alhan”, 1st ed., Tehran, Forughi Publication Institute
- Seraj, Sayed Hesam Al-Din, (2011), “transition from the mud to the heart”, 1st ed., Tehran, Neyestan
- Shafi’ei Kadkani, Muhammad Reza, (2004), “poetical melody”, 1st ed., Tehran, Agah
- Wink, R. William L., (1987), “invitation to hearing”, tr. Parviz Mansouri, 1st ed., Tehran, Goethe



www.persianminds.com (access date 20/8/1390)

www.sarierelar.blogfa.com (access date 22/2/1391)

Zandbaf, Hasan, (1993), “musical language”, 2nd ed., Tehran, Part

