

The Unity of Space In Buildings and Music

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ABSTRACT The phrase “buildings are the essence of music while music is the flow buildings” is well known but rarely understood by many. If indeed music is repeated in its simplest way, it could not escape its literary metaphor. This is a property that is difficult to define as music and architecture should be examined from all perspectives of . This report examines the compatibility between music and buildings from the viewpoint of modern art which improves our understanding and appreciation of architectural features. Therefore, in principle, the relationship to unify buildings and music should be investigated.

KEYWORDS

Buildings
Music
Space
Unity

Introduction

Many studies has been dedicated on finding the relationship between buildings and music, and scholars of both fields often elaborate the similarity of characteristics between the two subjects, occasionally unifying both. In the present study, we emphasize the management of unification between buildings and music. By comparison between appreciation of music and architectural features, the resulting experiences are essentially the same. In many ways they exhibit such property of unity. We can safely infer that the construction time is reversible while music on the other hand is irreversible.

generated by rhythms obeys laws of nature brought us a myriad of beautiful music, much enjoyed by people. Buildings are necessities; they reflect the foundation of spiritual and cultural values. While its construction requires techniques of manipulating art spaces, music is a form of art which gives aesthetic influence. The architectural feature and style is highly associated with its geographical environment, even related to religion and colour. Therefore, buildings are constructed based on the requirements of its society while music transcends reality. However, both buildings and music require fluidity of space and time to complete its description and since buildings are not replicated, they share an intimate relationship. In this context, the charm of a building will be reflected and musical works through various means illustrates its meaning. Therefore, we could say architects are comparable to musical composers or conductors, where construction of a building is likened to music design where they communicate and express the contents of the music into visual architectural structure. Therefore, our architects must be very well versed in the theory of music and the use of musical instruments such that they could find properties of structure comparable to melody, rhythm and tempo for a suitable architectural space. As such, architects should be reminded that musical notes are not mere symbols but an expression of a beautiful and moving music. Only with such view, the charm of music can truly penetrate into our soul.

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1.The compatibility between music and buildings

Music is a type of sound, in which message and thoughts are expressed as art. Besides, some sounds

2. The expression of unity between construction and musical space

2.1. The rhythm in architecture and music

From ancient times, buildings and music developed almost simultaneously. In primitive civilizations, humanity built resting places with stones and fallen wood while musical instruments were developed with similar materials at the same time. In the beginning, both music and buildings start from basic rhythms, such as an excerpt from LiangSi “an important factor contributing to artistic image of a building lies with melody and rhythm”. As a matter of fact, almost all buildings regardless of horizontal or vertical viewpoints reflect rhythm and melody. If we analyse it, the rhythm of a building is identical with music. Wang ShiReng attributed the chief representation of art in ancient China as music because it contained innumerable forms of emotion. Due to a broad range of music, which itself is built upon harmony and order, it could combine the most extensive and fundamental emotions together. Regardless from the perspective of a palace or industrial setting, its construction expresses a sense of harmony both in the form of order and progression. Within it is a rule that is represented by norms, laws and logic. It could adapt to the climate and affect interpersonal communications. It is the pursuit of logarithm within harmony forms the Chinese aesthetics standard. From thence, music being a major component of fine art directly represents identity and compatibility with buildings.

“Buildings and music are situated at opposite ends in the art spectrum where the former is the most abstract while the latter is substantial. Buildings are immutable, in order to appreciate the architecture entirely, we must observe visually and through sense of touch in motion. Appreciation of music on the other hand opposes motion where we have to listen quietly in order to understand it entirely. It is clear that architecture can be characterised as moving aesthetics while the essence of music must be appreciated through careful listening; and our architects, through prolonged practice of visual arts, could have established a dialog between these two seemingly unrelated arts, amalgamating them to a certain degree.

It is necessary to combine buildings with music. LiangSi mentioned architectural techniques such as scale, contour, proportionality, flow, texture, order, decorations and color are comparable and compatible to concepts of musical theories such as rhythm, timbre, harmony, tempo and volume. Like music, these aspects combine to reflect the main theme of a building. In music structure, cadence, rhythm and volume must correspond to one another. The decisive factor for an ethnic society to develop art styles and cultural elements depends on music.

2.2. Unity between spatial schema in musical notes and architectural space

In music, the distance between the notes on the score sheet creates the foundation of musical space where perceived distance is created between tempos. In other words, music can create spatial dimensions where it could express visualisation of spatial extends. A common example would be our experience with listening to music: the tones which produce perception of spaciousness correspond to soothing rhythms and harmonies as indicated by wide gaps in the musical notes while the opposite is perceived as narrow and claustrophobic.

The interval between musical notes presents a perimeter of space, which is highly comparable to the physical space between dividing walls of a building. As such, both entities can be viewed as a mirror of the same subject. Since the changes of distance between musical notes defines music, so does the space between walls defines a building. In addition, right tempo on the right notes forms music, this is comparable to a person appreciating an architecture which is required to walk across a structure and view at the right angle at the right pace. As such, we see parallelism in both space and time.

In the musical universe, the distances between the notes are not random despite variability of musical works; melodies are developed from understanding of the concept of space manifested by the composers. Similarly, in build environment, architects manage the space between walls because a building has finite spatial extent. Even so, the positions of walls are not placed randomly. Buildings are designed from understanding of the concept of space manifested by architects.

2.3. Unity between appreciation of architectural and musical arts

Appreciation of an architectural structure or music can be categorised as “sensual” to “emotional” and “rational” depending on the inputs and thought processes involved. We can see parallelism between appreciation of music and buildings with regards to these three aspects.

2.3.1. Sensual appreciation

The four basic components of music are rhythm, tone, timbre and pitch, where manipulating them creates a sense of audible pleasure. Crisp and loud rhythms are associated with vigour while euphemistic tones create a sense of welcoming tranquillity. Rich and grandeur tones ignite passion and are associated with positive and progressive spirit while its graininess provides different moods. If music is built upon such restrictive set of forms, we can argue that architecture manipulates spatial morphology, quality of materials and tones of colour to reach our perception. Examples are such as the picturesque Suchou gardens, the majestic palace of Peking, the elegant Greek temples and sublime Gothic cathedrals.

2.3.2. Emotional appreciation

In fact, in terms of building and music, the aesthetics of both are expressive. Architects convey the message of regularity through buildings while musicians call upon human emotions with their musical work. Music often uses different sets of tones, rhythm and volume to express emotion such as happiness and sadness, the application of dissonance to express war and arguments, harmonics for peace and tranquillity; trumpet illustrates war while clarinets illustrates territory. Sometimes, music induce perception of colours and its associated drama such as Verdi's Aida where blue sonata represent worries and red for enthusiasm and vitality. These perceptions are abstract; they require deep understanding of music theory to appreciate; so as for the aesthetics of buildings are separated to abstract and concrete. Due to emotions associated with buildings and direct coupling with exposure to music, when you see the garden bridges or pavilions of Suchou, it invokes winding paths – your ear will stall and we will be spiritually drifted to the gentle tones of traditional musical instruments. When you stand facing the façade of a gothic church, you delve into its spiritual space, the sound of pipe organs and choirs echoes in your mind. This is how music expresses the beauty of buildings.

2.3.3. Rational appreciation (aesthetics of constructivism in music and musicality in architecture)

On the aesthetics of music, we appreciate with sight as "architectural aesthetics of music". We can say music is flowing architecture because its beauty in structure and curves are inexplicable. The lecture on aesthetics by Hegel mentions music and architecture are similar because just like buildings, music is created upon proportionality and structure. We know music appears objective such that we may fully appreciate its beauty only through detailed listening. In this regard, the difference with appreciating architecture is that the latter comes from solely with detail reasoning and analysis. Buildings are materialised music; they are

used to compose the rhythm and motion of the street. This parallelism creates a mechanism of use between the parentheses. In the process of building design, we use music to emphasize the aesthetics of a building, implementing proportions such that building and music coexist in a single structure. Only through deep understanding of buildings and the meaning behind its music, we can fully appreciate its beauty.

Conclusion

At the present stage, we discovered the fusion between music and architecture have some forms of inadequacies where more than one music has to be appreciated each after another while aesthetics of buildings can be evaluated simultaneously given if they are in the same field of view. In addition, multiple buildings can be evaluated in a short amount of observation time, while it is impossible to do so with music. In general, we cannot simultaneously evaluate different music at one time. Therefore, there is a stronger flexibility on aesthetics of buildings. In reality experience, the composition of music follows a sequence with some form of flexibility. Due to that, we can choose how to listen to the rhythm of music, perhaps when we wanted to describe architecture, this view will be clearer and we can analyse with greater clarity. As such, the relationship between music and construction deserves an academic interest.

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