

THE EVALUATION OF IMAGINATIVE DISCOVERY COMING INTO EXISTENCE DURING THE PRODUCTION PROCESS OF MUSIC AND ARCHITECTURE ON THE BASIS OF PINK FLOYD

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ABSTRACT

“Music is liquid architecture; Architecture is frozen music.” (Goethe)

In art and science, the process of production exists in two different ways. The first one is an action that can be measured, experimented and supported by technical and practical processes and gives precise results. The second one is also an action which is based on experiences and sourced from relations, meaning and context. The second one cannot be measured technically but it can be fictionalized intuitively.¹ However, in disciplines involving design such as architecture, it can be seen that these two production processes take primacy and even nurture each other. The meaning turns into concrete reality and becomes a form through images, metaphors and analogies. The aim of this study resolving the relationship between design processes in music and architecture through metaphors, analogies and images. The methodological steps are as follows: firstly, the discovery of the pure physical phenomenon; then, the psychological effect and psychological reaction inside us; finally, their imaginative, metaphorical or analogical discovery and visual reproduction. At this point, the performative reality is music. Conceptual reality is metaphors, images and analogies. On the other hand, abstract reality is concrete of plan, appearance and perspective. The metaphors, images and analogies obtained from music are reproduced visually based on the contemporary architecture samples. “The Wall” album of Pink Floyd constitutes the musical part of the study. The basic metaphors of the “The Wall” was considered as the key study, and the songs “Hey You” and “Is There Anybody Out There” which were in the part III were chosen. These songs were experienced with the sound effects, notes, speed and pauses. The visual equivalents of obtained metaphors, images and analogies were reproduced with plan, section and perspective samples. Within this context, the variety of sounds (scream, wind, etc.) used by Pink Floyd and their approach towards the images, metaphors and analogies in a similar way that the discipline of architecture does, starting their works from stories and the fact that they could be objectivized strengthens the music’s capacity to form a location.

Keywords: music and architecture, metaphor, analogy, image, Pink Floyd

¹ Ungers, O. M. (2013). *Kent metaforları:morphologie*, İstanbul: Lemis, 6-25.

1. INTRODUCTION

Music and architecture follow similar production processes. The meaning turns into form and material in architecture while it turns into notes and sound in music. Therefore, both production processes have intuitional processes based on experience. Both art fields make benefit of images, analogies and metaphors to define the reality. Images are the forms that are pictured in our minds and imaginary world. An image is a consensual indicator and has a semantic value. It is an indicator which is given a consensual meaning by a group of people.² According to Bourriaud, it is an instant and a frozen state of time.³ Gombrich especially emphasizes that the visual discovery of images is one of the most pleasant and basic competencies of art.⁴ As an architectural narration, an image turns the picture of architecture into a pattern of events.⁵ On the opposite, the theorists who focus on the images of cities express that the experiences along with the form constitute the city image.⁶ Therefore, image in architectural narration creates a form accumulation and determines the level of communication in an experienced pattern of events. When the structural elements of music (pace, rhythm, tune, harmony, polyphony, form) are examined, it is seen that it brings about images during experience.

Metaphors are the intuitive abstraction of similarities in differences. At the same time, they are related to how people think, justify and imagine. Goethe required two concepts while stating the architecture as the frozen state of music. These concepts are architecture and music. One of them is the source domain while the other one is target domain.⁷ In this example, the source domain is music. The target domain is architecture. While relating the source domain with the target domain, people actually give meaning to the unknown (target domain) through what they know (source domain). In this example, architecture and music are associated semantically and the architecture is resembled to frozen music. The relationship between the source domain and target domain reveals the visual discovery of similarities in the differences of metaphor. Eight methods were determined to reveal the similarities in source-target domain relationship.⁸ These are form, interaction, sound, movement, material, smell, name and graphics. According to the researchers focusing on metaphors within the context of linguistics in engineering sciences and architecture⁹, more than 10.000 concepts out of 150.000 in English have metaphorical potential. The meanings of these terminological metaphors are sourced from other metaphors. Therefore, metaphors are widely used in design processes. Both the semantic reasons and the reasons sourcing from the music's own structure can be the source of the music-metaphor relationship. Zbikowski examined the music-metaphor relationship through Bach's works and established metaphorical links through the concepts of pace, rhythm, tune, harmony, and polyphony.¹⁰ What is important for Zbikowski are the notes, pauses and meters. Within this context, the dominant sounds in an instrument or the silence in a song create the feelings. Metaphors are also used in fields involving design. Metaphors are powerful means to make a product-or interaction with it understandable and pleasure.¹¹ Trying to reveal the foundations in the link

² Akarsu, B. (1998). *Felsefe terimleri sözlüğü*, İstanbul: İnkılap Yayınevi, 7.

³ Bourriaud, N. (2005). *İlişkisel estetik* (Birinci baskı), İstanbul: Bağlam Yayıncılık, 130.

⁴ Gombrich, E. H. (2015). *İmge ve göz* (Birinci baskı), İstanbul: Yapı Kredi Kültür Sanat Yayınları, 9.

⁵ Alemdar, Z. Y. (2011). Mimarlıkta anlatı olarak imge. *İTÜ Dergisi*, 10(1), 83-94.

⁶ Jacobs, J. (2011). *Büyük Amerikan şehirlerinin ölümü ve yaşamı* (Birinci baskı), İstanbul: Metis Yayınları.

Lynch, K. (2014). *Kent imgesi* (Dördüncü baskı), İstanbul: Türkiye İş Bankası Kültür Yayınları.

⁷ Lakoff, G. (1987). Metametaphorical issue: Image metaphors. *Metaphors and Symbolic Activity*, 2(3), 219-222.

⁸ Hekkert, P., Cila, N. (2015). Handle with care! Why and how designers make use of product metaphors. *Elsevier Ltd*, 196-217.

⁹ Roldan Riejos, A., Cuadrado, G. (2015). Metaphor and figurative meaning construction in science and technology. *Procedia Social and Behavioral Sciences*, 212, 271-277.

¹⁰ Zbikowski, M.L. (2008). Metaphor and music. Gibbs, R. W. *The Cambridge handbook of metaphor and thought*. England: Cambridge University Press, 502-524.

between art and metaphors by quoting Picasso's statement "My sculptures are plastic metaphors. It is the same principle as in painting", Aldrich studied on how the metaphors are created beyond linguistics, how they are formed in visual arts after the experience of the artist and what is a good metaphor in art.¹² Zwicky discusses metaphorical understanding ("seeing-as") in terms of gestalt.¹³ However, according to Zwicky, the source domain and the target domain are never seen simultaneously, and one of them is always the echo of the other one.

Analogies, on the other hand, are the formation of an object by looking at other objects. Le Corbusier created an analogy which influenced the entire modern architecture by using the concept of machine for residence. Analogical design is seen as the most effective source of creative ideas in architecture. Sources of analogy are categorized into four different classes in the history of architecture. These are biological analogies, mechanical analogies, gastronomical analogies and linguistic analogies.¹⁴ Designers use metaphors and analogies in three different ways. These are problem solving, problem defining and explaining the problem to the others. However, for the last product formed by the use of analogies and metaphors during the design process, conflicts about authenticity and imitation are discussed.¹⁵

The principal creative process is the consciousness which the reality has through imagination and sensory perception method; it has a broader harmony compared to the test-measure-control, which is a simpler method.¹⁶ When the architecture and music are examined, it is seen that experience and sensory perception take place in both of them substantially. Within this context, music and architecture are accepted as gestalt. Gestalt can be defined as a whole, more than the sum of the pieces. According to this theory in perception, the whole is composed of the pieces, but the pieces don't represent the whole on their own. On the contrary, the pieces take their forms in accordance with the whole.¹⁷ In other words, a person is not able to perceive the stimuli individually. The perception has a complex structure, which is the sum of the separate stimuli. It should be pointed out that bringing the stones together doesn't always form a good place, or combining the notes does not always make a good melody. Creating something more than the whole depends on how the pieces are brought together.¹⁸ Lang categorizes the perception theories under two classes as sensation-based and information-based theories.¹⁹ The first one, sensation-based theory, has three sub-categories. The first sub-category is empiricism, which is the perception based on feelings obtained through sensational experiences. In the second one, transactionalism, the role of personal experience is effective. The third group is nativist and rationalist theory. Nativist theory argues that the perception is innate, and cannot learned afterwards, while the rationalist theory grounds the perceptions on rational deductions from the sensations. On the other hand, ecological approaches exemplified for the information-based theories. In comparison with the sensation-based theories, the foundation of perceptions is the

¹¹ Hekkert, P., Cila, N. (2015). Handle with care! Why and how designers make use of product metaphors. *Elsevier Ltd*, 196-217.

¹² Aldrich V. C. (1968). Visual Metaphors. *The Journal of Aesthetic Education*, 2(1), 73-86.

¹³ Zwicky, J. (2003). *Wisdom and metaphor*, Kentville: Gaspereau Press, 56.

¹⁴ Collins, P. (1965). *Changing ideals in modern architecture, 1750-1950*, London: McGill-Queen's University Press, 149,159,167.

¹⁵ Hadian, A. S., Arefi, M. (2016). Metaphor, analogy, and the discourse of originality: Five Iranian case studies. *Social Semiotics*, 1-22.

¹⁶ Ungers, O. M. (2013). *Kent metaforları:morphologie*, İstanbul: Lemis, 6-25.

¹⁷ Eryayar, E. (2008). Tasarım hukukunda ürün tasarımı açısından benzerlik kavramının irdelenmesi, Marmara Üniversitesi Güzel Sanatlar Enstitüsü, Sanatta Yeterlilik Tezi, 111,112.

¹⁸ Fischer, G. (2015). *Mimarlık ve dil*, İstanbul: Daimon Yayınları, 15.

¹⁹ Lang, J. (1987). *Creating architectural theory: The role of behavioral sciences in enviromental design*, New York: Van Nostrand Reinhold Company, 287.

information possessed by the individual beyond the past experiences according to information-based theories. Within this context, the individual gives meaning to visual or aual experiences on music or architecture through its own information history.

According the Ungers, if the physical phenomena are approached with a morphological mentality system as in Gestalt, we can improve our knowledge without using technological tools and equipment. There are three basic layers used to grasp the physical phenomena.²⁰

- The presence of pure physical phenomena,
- Psychological effect,
- Imaginative discovery conducted to conceptualize the phenomena and reproduction of them visually.

2. METHOD

This study aims at resolving the relationship between design processes in music and architecture through metaphors, analogies and images. Within this context, the discovery of the pure physical phenomena, psychological effect, imaginative discovery conducted to conceptualize the phenomena, and reproduction of them visually are followed respectively. The pure physical phenomenon is the music. Music here is the performative reality. Psychological effect is metaphors, analogies and images. Metaphors, analogies and images are conceptual reality. Visual reproduction is the architecture. Architecture is the concrete reality. In the study, "The Wall" album of Pink Floyd constitutes the music part of the study as the performative reality. This album is a rock opera and it discovers a metaphorical wall. Pink is an imaginary hero. "The Wall" album tells the milestones in the lifeline of this hero. By staying behind the wall, Pink is experiencing a depression and he has problems about communicating with people on the other side of the wall. The basic metaphors of the Wall album was considered as the key study, and the songs "Hey You" and "Is There Anybody Out There" were chosen. In the song "Hey You", interior-exterior, repetition, texture and unity as images, the wall and home concepts as metaphors, and sound effects sourcing from human emotions as analogies were discovered. These sound effects recalls the despair, hope and help. In the song "Is There Anybody Out There", metaphors as the concept of wall and at the same time broken soul, growing wall, drifting away from the world, introversion, images as separation, collapse and explosion, and analogy as the concept of justice were discovered. The effectiveness of personal experience, which is a factor in Lang's transactionalizm, was used as a method to discover the metaphors, analogies and images in the songs. After the discovery of the metaphors, analogies and images, the visuals recalled by these concepts were reproduced. City photos along with the works of contemporary architects were benefited for the visuals.

²⁰ Ungers, O. M. (2013). *Kent metaforları:morphologie*, İstanbul: Lemis, 6-25.

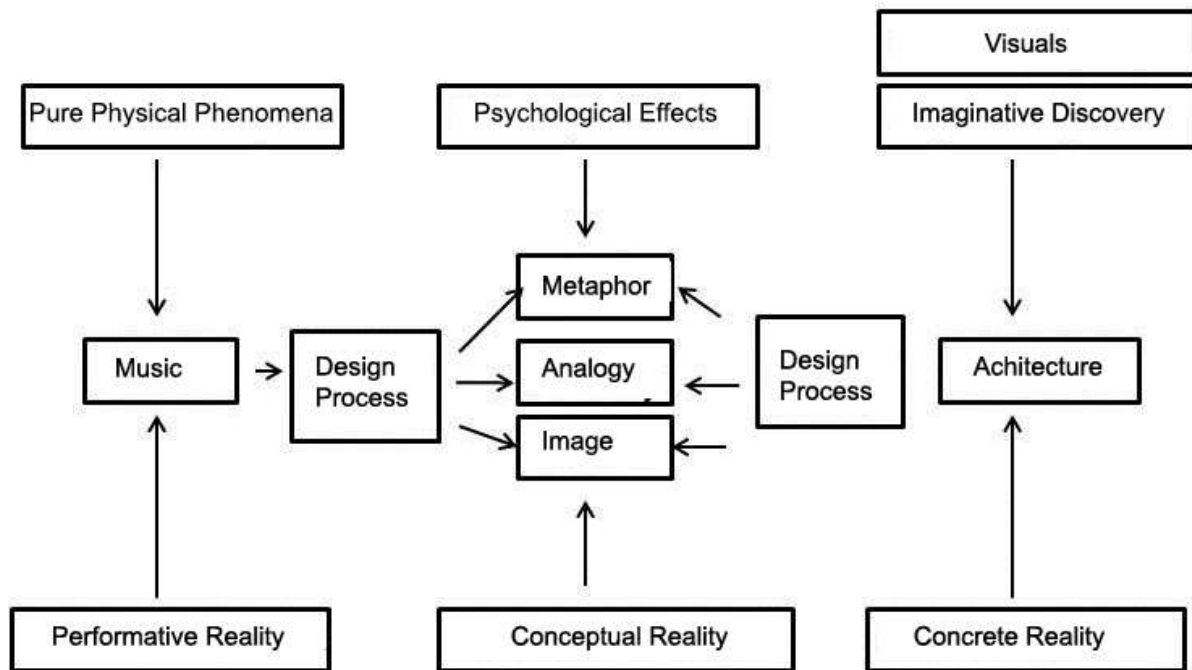


table1: Method table of music-architecture relationship

3. “Hey You” and “Is there Anybody Out There” by Pink Floyd

Pink Floyd is an English rock band from London, 1965. The group achieved worldwide acclaim, with innovative psychedelic music and progressive rock. They use philosophical lyrics, sonic experimentation and the variety of audio in their albums.²¹

The moment that triggered The Wall happened at a performance in Montreal Olympic Stadium during In The Flesh tour on July 1977. “A small group of noisy and excited fans near the stage irritated Waters to such an extent that he spat at one of them”.²² The event became the starting point for a new notion, which created the character’s self-imposed abstraction after years of staggering interactions with authority figures and the loss of his father as a little child.

The Wall is a rock opera²³ that is “a largely autobiographical reflection by Waters on the nature of love, life and art. The double album charts the progress of rock star, ‘Pink’, facing the break-up of his marriage while on tour. This leads him to review his life from the death of his father – like Waters’ death on the battlefield before he was born – to his spiteful teachers, his business, even his audience. He sees each as a brick in a metaphorical Wall between him and the rest of the World.”²⁴

The Wall (1979) of Pink Floyd constitutes the music part of the study. This album approach towards the images, metaphors and analogies in a similar way that the discipline of architecture does, starting their works from stories and the fact that they could be objectivized strengthens the music’s capacity to form a location. The basic metaphors of the Wall album was considered as the key study, and the songs “Hey You” and “Is There

²¹ <https://www.discogs.com/artist/45467-Pink-Floyd>

²² Scarfe, G. (2010). *The making of Pink Floyd: The Wall* (First edition), USA: Da Capo Press, 51.

²³ Rock Milestones: Pink Floyd - The Wall.

²⁴ <http://www.pinkfloyd.com/history/biography.php>

"Anybody Out There" were chosen. "Hey You" and "Is There Anybody Out There?" are the songs from The Wall of Pink Floyd (Andy, 1995). Respectively, at these points in the plot, Pink notices the mistake he made in shunning society and take steps to recover contact with the external world. In addition to this, he can't see or hear beyond the wall. His call becomes more and more hopeless as he begins to notice there is no flee. In the other song, protagonist is attempting to attain anybody exterior of his self-built wall. The recurrent question "Is there anybody out there?" suggests that no answer is heard.

4. FINDINGS

The visual equivalents of metaphor, analogy and images which are derived from songs "Hey You" and "Is There Anybody Out There" are reproduced by the examples of plan, section and perspectives.

	Metaphor	Analogy	Image
Hey You	<ul style="list-style-type: none"> -Wall -House (home) 	<ul style="list-style-type: none"> -Despair <p>Sound effects sourcing from human emotions</p>	<ul style="list-style-type: none"> -Interior-exterior -Repetition -Texture -Unity
Is There Anybody Out There	<ul style="list-style-type: none"> -Broken Soul -Growing Wall -From the World -Introversion 	<ul style="list-style-type: none"> -Justice 	<ul style="list-style-type: none"> -Separation -Collapse -Explosion

tablo 2: Table of metaphors, analogies and images

4.1. Hey You

4.1.1. Metaphor

a. wall:



figure 1:²⁵ Olafur Eliasson, Oslo Opera House (The Other Wall), Oslo, 2008.

b. house (home):



figure 2:²⁶ Emre Arolat - Sancaklar Mosque, İstanbul, 2013.

4.1.2. Analogy

a. despair:



figure 3:²⁷ Daniel Libeskind- Jüdisches Museum, Berlin, 2001.

²⁵ "The Other House" in Oslo Opera House is placed 30cm front of the wall. MDF (painted white), steel, aluminum, led lights (white, green), and control unit were used as materials.

²⁶ The prayer hall reached directly from this level, a simple cave like space, becomes a dramatic and awe inspiring.

²⁷ This visual is from the Holocaust Tower of Berlin Jewish Museum. This room represents the gas room where the Jewish people were murdered. There is only one little slit on the ceiling for the light to come into this pitch-dark room.

4.1.3. Image

a. interior-exterior:



figure 4:²⁸ Ludwig Mies van der Rohe – Barcelona Pavilion, Barcelona, 1929.

b. repetition:

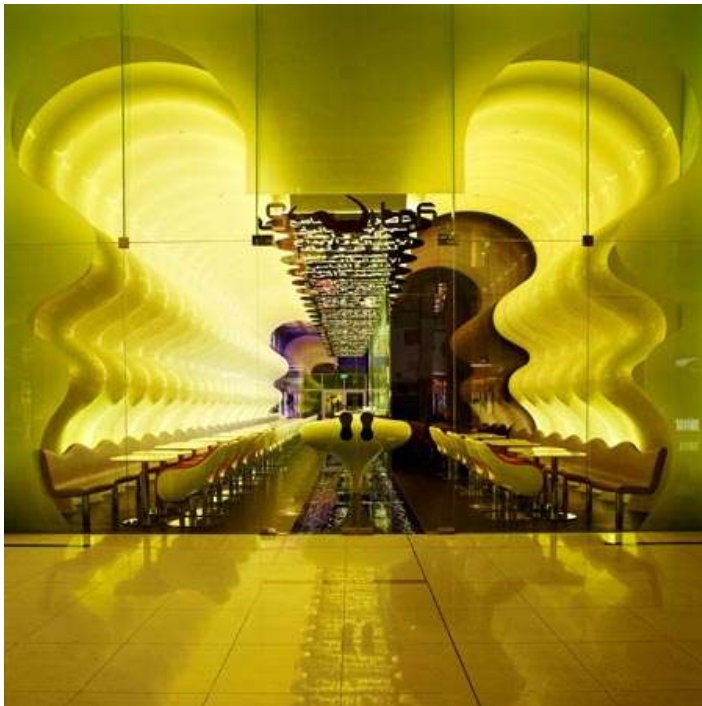


figure 5:²⁹ Karim Rashid – Switch Restaurant, Dubai, 2009.

c. texture:



figure 6:³⁰ Antoni Gaudi – Sagrada Família, Barcelona, 2010.

²⁸ This structure which is composed of asymmetric, open, light and free places was constructed out of glass, steel, marble and travertine. The relations of wall, column and glass surfaces between each other constitute emptiness, space and volume. The aim of using these concepts is not to disconnect the interior and exterior by precise lines, but to make connections between the interior places.

²⁹ Switch; is a balanced place which has a symmetric appearance and is composed of enclosing, repetitive and wavy walls.

³⁰ The description of Holy Mountain created in the frontline is reflected inside the cathedral as a whole. The symbol of mountain functions as an intense texture with the figure in the venue.

d. unity:



figure 7:³¹ Piet Blom – Cube House, Rotterdam, 1977.

4.2. Is There Anybody Out There

4.2.1. Metaphor

a. broken soul:



figure 8:³² Hector Guimard – Le Castel Beranger, Paris, 1898.

b. growing wall:

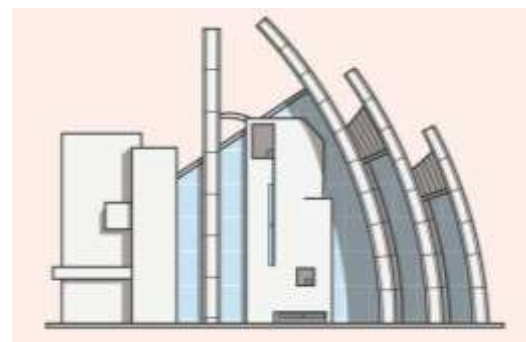


figure 9:³³ Richard Meier – Jubilee Church Roma, 2003.

³¹ There is a total of 40 cubes, 38 of them are small while 2 of them are big. The architect aimed at creating a village in unity, which has a variety of functions.

³² In this structure in which the iron was used intensely, the twisted and curved forms constitutes the fragile volumes.

³³ Holy Trinity in church is represented by three hierarchical concrete crusts and a wall, which serves as a backbone.

c. introversion:

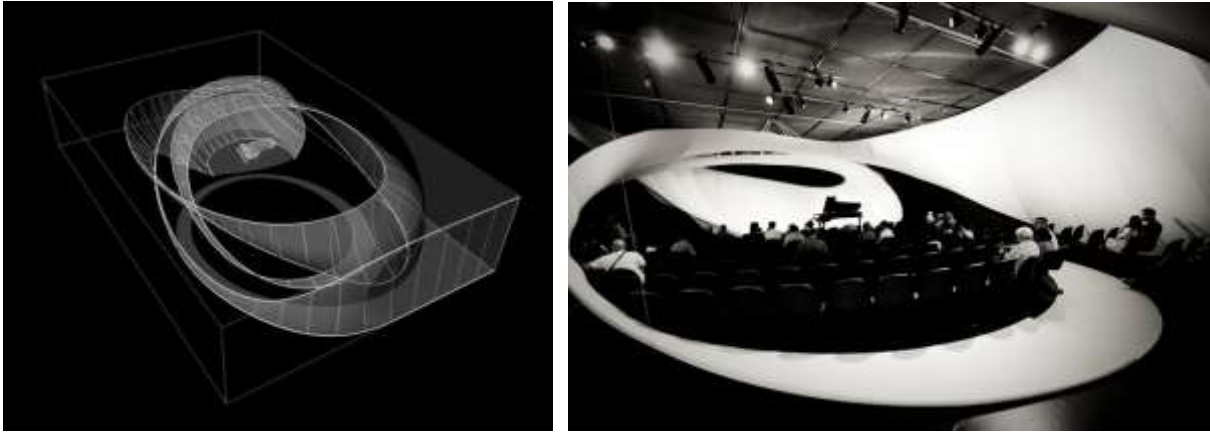


figure 10.³⁴ Zaha Hadid – JS Bach Chamber Music Hall, Manchester, 2009.

d. from the world:

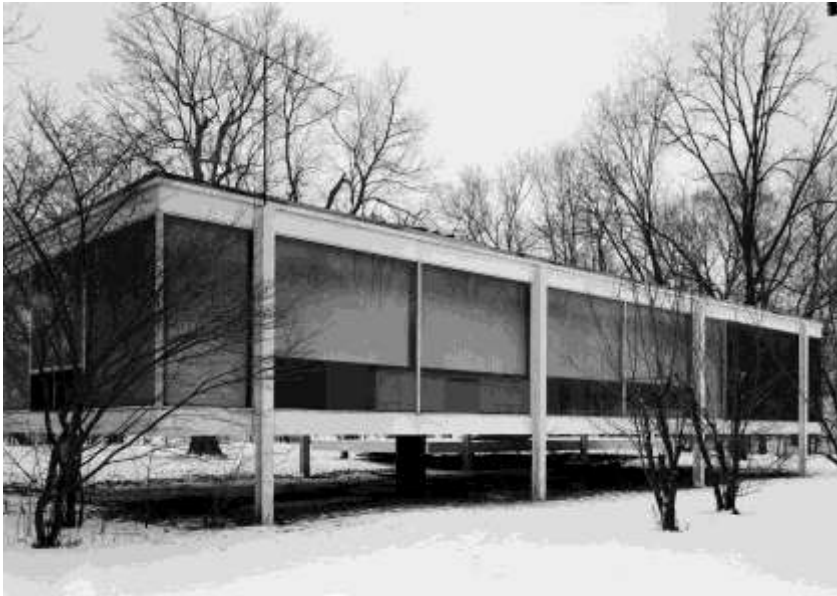


figure 11.³⁵ Mies Van Der Rohe – Farnsworth House, Illinois, 1951.

³⁴ A long and uninterrupted ribbon turns around both itself and the venue, and rolls the audience first, then the musician from outside to inside. This long ribbon presents the volumetric and visual equivalent of Bach's rhythm by turning around the room.

³⁵ One of the principals in Le Corbusier's "Five Points of Modern Architecture", the idea that the building should rise on the columns and break off the ground is seen in Farnsworth House. At the same time in his article called "Deleuze, Kıvrım ve İç-Sizlik Gilles Deleuze'de Mekan ve Mimarlığa Uç Veren Kavramlara Giriş", Levent Şentürk states that the snow deposited on the ground breaks the mass away from the earth. Therefore, a snowy Farnsworth House visual was chosen.

4.2.2. analogy

a. justice:



figure 12.³⁶ Louis Kahn – Jatiyo Sangshad Bhaban, Bangladesh, 1982.

4.2.3. image

a. separation:

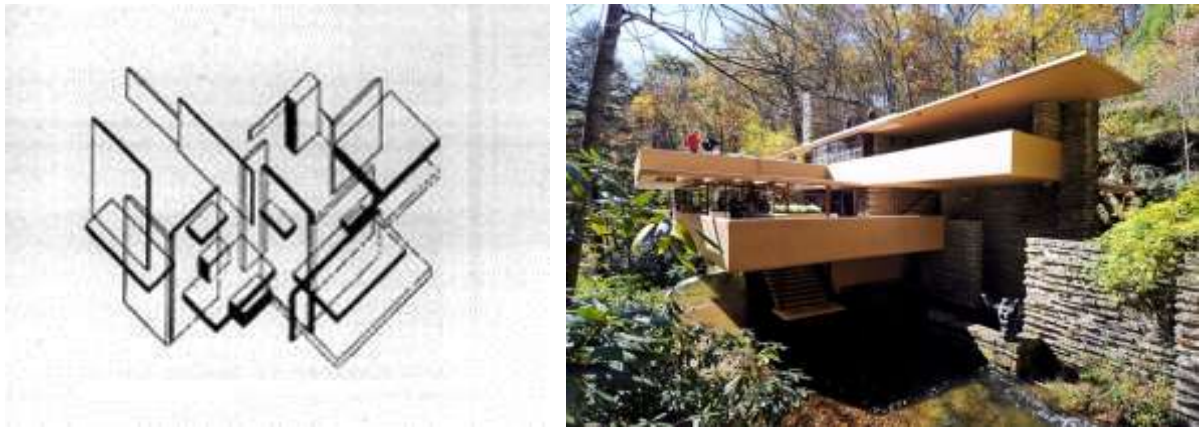


figure 13.³⁷ Frank Lloyd Wright – Falling Water House, Pennsylvania, 1939.

³⁶ Although it was started to be constructed as the federal building in East Pakistan, this structure was decided to be used as the National Parliament by Bangladesh when it gained its independence from Pakistan.

³⁷ The fragmentation of the box; it views all corners of the prism as the places we live in, and destroys them. The destruction of the wall creates a flow in the interior space. This flow is also seen in interior-exterior space relation.

b. collapse:



figure 14:³⁸ Minoru Yamasaki - Pruitt-Igoe, Missouri, 1972 (demolition).

c. explosion:

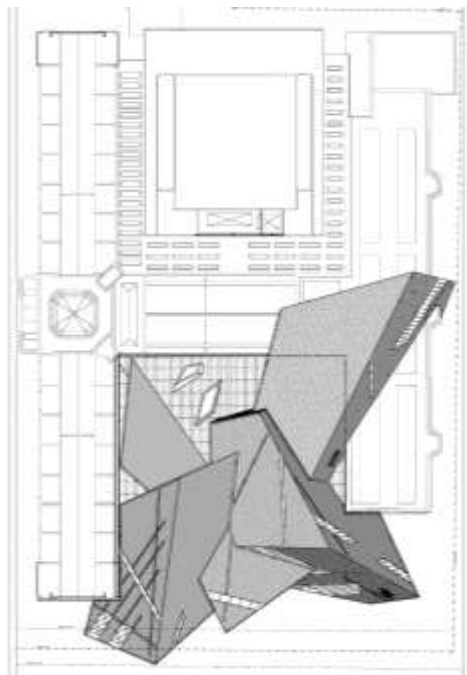


figure 15:³⁹ Daniel Libesky - Royal Ontario, Toronto, 1914/2007.

³⁸ It was constructed as mass housing, but it failed. It was completely removed by dynamites in 1976. This structure was one of the first destructions of the modern architecture, and it was described by the postmodernist architecture historian Charles Jenks as “the day modern architecture died”.

³⁹ In 2007, a wing of 100.000 m² was added to this museum, which was founded in 1912. This wing resembles a giant crystal coming out of the historical building.

5. CONCLUSION

As a result in this study, the similarities between music and architecture were determined from the viewpoint of metaphors, analogies and images. Both music and architecture allow linguistic context through experiences. When the design process is examined, the form creates the concepts in architecture while notes create concepts in music. Reversely, the artist designs the form or the notes by looking at the concepts. The design constitutes the whole only by bringing the right notes or right forms together. Concepts are at the same time seen as the effective source of the creative ideas in architecture and music, and provide opportunity to obtain more effective results. Images, metaphors and analogies are the concepts that experience the art and strengthen the communication within the art products. The variety of sounds used by Pink Floyd in their songs and their approach towards the images, metaphors and analogies in a similar way that the discipline of architecture does, starting their works from stories and the fact that they could be objectivized strengthens the music's capacity to form a location.