

Integration of Wabi-Sabi Aesthetic Theory Principles in Heritage Building Restoration

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Abstract –Architectural restoration involves the preservation and conservation of heritage buildings that embody the characteristics of their respective eras and possess their unique historical significance. The process adheres to the original construction techniques, materials, and functions, and aims to minimize intervention while maintaining the integrity and authenticity of the building. Restoration practice has evolved significantly over the past 200 years, influenced by technological advances, innovations, and changing perspectives. This ongoing transformation reflects the ability of restoration approaches to adapt to new developments and insights. In this respect, the Wabi-Sabi aesthetic theory, which originated in Japan, could be applied to the restoration of heritage buildings. The Wabi-Sabi aesthetic theory is based on the “*imperfect, impermanent, and incomplete*” in nature. This study aims to integrate restoration application methods with the Wabi-Sabi aesthetic theory, a philosophy that embraces the beauty found in imperfection. In this regard, two restored heritage buildings are selected to be analyzed according to the principle of Wabi-Sabi aesthetic theory. As a result, the analysis shows that some of the principles of the Wabi-Sabi aesthetic theory are not applied in the heritage buildings studied.

Keywords – Heritage buildings, Wabi-Sabi aesthetic theory, Restoration, Wabi-Sabi aesthetic principles, Conservation

I. INTRODUCTION

According to Cavlun, restoration is the preservation or re-functioning and conservation of historical monuments and heritage buildings that have passed a certain period of time, with respect to their origin and reflecting the characteristics of their respective periods [1]. This process is carried out with minimal intervention in accordance with the original construction technique, material, function and architectural style [1]. There are different approaches to the conservation and restoration of buildings, which have been developed and changed with different perspectives throughout the historical process. According to Mehr’s analysis, the main theory of heritage buildings conservation can be divided into three groups: “*stylistic restoration, conservation (anti-restoration) and restoration-conservation movements*” [2].

Mehr explains that the pioneer of stylistic restoration was Viollet Le Due, who believed that finding a proper function for the reuse of heritage buildings would prevent further changes in the future. In addition, it is better to restore heritage buildings close to their original condition. In other words, the integration of new physical elements into the heritage building should be done with respect to its origin [2]. Mehr presents Ruskin as a leader of the conservation (anti-restoration) movement, which is different from Viollet Le Due’s view. Ruskin believed that each historic building was a unique architectural design from a specific time that could not be replicated or restored, but could be preserved [2]. According to Mehr, Morris follows Ruskin’s approach and focuses on strengthening and maintaining heritage buildings without altering them. Morris believes that the building should be left as it was, even if its function has changed [2]. However,

according to Mehr, Boito was at the forefront of the restoration and conservation movement, drawing on both Viollet-le-Duc’s and Ruskin’s approaches to heritage buildings. Boito presented three classes of age: ancient, medieval, and modern, which should be taken into account when restoring buildings. He applied three methods to the restoration of heritage buildings according to these three classes mentioned. These methods are “*archaeological restoration*”, “*picturesque restoration*” and “*architectural restoration*”, which refer to ancient monuments, medieval monuments and Renaissance, and other historical monuments respectively [2]. He emphasizes that the restoration process must preserve all layers of a heritage building. Furthermore, according to Boito, the restoration of heritage buildings differs from case to case and must respect the authentic characteristics and heritage values of the building. He believes that building maintenance can prevent restoration [2].

Restoration practices have evolved over the past 200 years, influenced by technological advances, innovations and changing perspectives. This ongoing transformation demonstrates that restoration approaches can adapt and grow in response to new developments and viewpoints. One such approach is the aesthetic theory of Wabi-Sabi, a Japanese art movement with roots dating back to the 13th century. It advocates naturalness, the beauty of imperfection, the preservation of historical artifacts and respect for the traces of the past [3]. The aim of the Wabi-Sabi aesthetic theory is to remain true to one’s roots while highlighting ancient aesthetics and incorporating them into modern progress, rather than allowing the value of materials and people to diminish over time [4]. Restoration projects that embody the Wabi-Sabi aesthetic have largely been small-scale endeavors. There are

only a handful of examples of Wabi-Sabi restoration at the building level. At this point, there is undoubtedly a great harmony between restoration, history, lived experience, and Wabi-Sabi, which advocates natural and imperfect beauty. Integrating Wabi-Sabi's understanding of art into restoration will be a different way of bringing art and life together. The point to note in this approach is the need to make the necessary interventions in the structural system of heritage buildings, as the main purpose of restoration is to pass these heritage buildings on to future generations [4].

A. WABI-SABI AESTHETIC THEORY

According to Rupert, the Wabi-Sabi aesthetic is an artistic concept that has developed in Japan since the Heian period, one of the oldest periods known for its elegance and is rooted in Zen philosophy [5]. Zen philosophy believes in the four truths that; *“life is suffering, suffering is caused by attachment, the end of suffering is possible by ignoring attachment to the material world, and liberation from suffering is possible by following the Eightfold Path”* [6]. Yurt and Başarır explain that the concepts that form the Wabi-Sabi is on the the basis of Zen philosophy and clearly articulate its ideology are presented as the principles of Zen philosophy [7]. These include *“austerity”, “simplicity”, “imperfection”, “asymmetry”, “naturalness”, “break in the routine”, “stillness”, “profound grace”, “subtlety”* [8].

Zen philosophy has significantly influenced life through art, with the Wabi-Sabi aesthetic being its most prominent manifestation. The spiritual foundations of the Zen faith underpin Wabi-Sabi and allow it to flourish. The Wabi-Sabi aesthetic aims to create a distinctive atmosphere by harmonizing natural elements with their artistic experiences. This philosophy introduces a rustic ideology that contrasts with the aesthetic standards of the past. Elements once considered vulgar or worthless are revalued and celebrated for their intrinsic beauty [5].

According to Koren, the origins of the Wabi-Sabi aesthetic theory can be traced back to the 13th century. This ancient aesthetic theory is beautifully expressed in the traditional Japanese tea ceremony. During the tea ceremony, everyone enters the room through a small opening, regardless of age, gender or social status. This act symbolizes the equality that transcends all boundaries [9]. The hosts then carefully prepare the tea presentation using special handmade cups. Koren explains that this tea ceremony is an eclectic art game involving many arguments. To explain the tea ceremony, it is better to understand the philosophy of Wabi-Sabi [9]. Wabi-Sabi consists of two characteristics, each of which has its own meaning. Gold makes it clear that Wabi stands in stark contrast to pretension and ostentation; it embodies humility. In art and design, it means a modest choice, an unpretentious naturalness and a simplicity of form that avoids harshness. Sabi, on the other hand, means rust, decay or the beauty that comes with age, achieved through years of existence with natural processes [10].

Yurt and Başarır clarify that the Wabi-Sabi aesthetic philosophy is a way of thinking that focuses on life comprehensively, accepting life and everything in it. In other words, the transitory state of things and their imperfections in the universe, nature and life are accepted in this aesthetic philosophy [7]. According to Koren, Wabi-Sabi aesthetics emphasize that beauty comes from imperfection, impermanence, and incompleteness. In other words, it

celebrates a beauty that exists uniquely because of its imperfections and embraces the idea that imperfections add to its charm. [9]. In the Wabi-Sabi aesthetic, it's fascinating to consider that inanimate objects have an emotional quality. Limiting an object to its external appearance is a significant oversight. Instead, objects should be defined by their essence, the values they embody and the experiences and emotions they carry. Wabi-Sabi implies that there is a profound power in the raw, weathered, and imperfect appearance of objects. It emphasizes that what really matters is not what is visible, but what is felt beneath the surface [4].

B. WABI-SABI AESTHETIC IN ARCHITECTURE

According to Davies and Ikeno, Wabi-Sabi is not only a traditional aesthetic but also an architectural style, especially in interior design [11]. In order to systematize the Wabi-Sabi aesthetic, specific criteria and application methods have been established. These include rustic beauty, the aesthetics of absence, mysterious beauty, variable beauty, spiritual beauty, a natural appearance, transient beauty, asymmetrical beauty, and desolate beauty. Özer suggests that designs inspired by Wabi-Sabi can incorporate the concepts of material, form, color and spirituality [12]. Taken together, these concepts elucidate the design principles of Wabi-Sabi aesthetic theory, which can be summarized as follows.

Natural and Raw Materials: Raw materials are favored in designing by Wabi-Sabi aesthetic principle. Materials such as wood, natural stone, brick, mud, bamboo, which are characterized as materials that do not need to look bright and vivid, and that contain their power within themselves, are preferred [12].

Natural Forms: According to the Wabi-Sabi aesthetic principle, care is taken not to alter the form of the raw material too much. Asymmetry and soft forms are favored. The main idea is not to change the form of the material and to let it guide the design [12].

Natural Textures: Göksel and Erbay express that in designing with the aesthetic principle of Wabi-Sabi, the texture of objects plays an important role. The value of a material lies in the patterns on its surface and the emotions it evokes. In other words, textures that occur naturally and irregularly are considered valuable. The transformation of the material over time reveals the traces of its history [13].

Pale Colors: According to Özer, pastel, non-vivid, pale colors are preferred when designing according to the Wabi-Sabi aesthetic principle. In the Wabi-Sabi aesthetic theory, which does not break its connection with nature, colors that are not found in nature are not preferred. Brown, green, black, white, and shades of brown, green, black, and tones found mainly in organic materials are preferred [12].

Balance: Design should follow the balance exists in nature, where every event and phenomenon occurs in perfect equilibrium [7].

Spirituality: The reflections on the wall, the objects in the interior, the swaying of the flower in the pot with the wind, the mirror with a broken edge change the perception of the space for the users. The Wabi-Sabi aesthetic theory respects all elements that add value to the perception of space [12].

Historicity: The traces that history leaves in a place reveal its character. In the aesthetic theory of Wabi-Sabi, every trace left in a place is precious and reflects the history of the place. The explanation for this approach is that it symbolizes the connection between death and the world. At this point, the

main contribution of Wabi-Sabi aesthetic theory to art and aesthetics is to “transform the lived experience into an aesthetic phenomenon” [13].

II. MATERIAL AND METHOD

The study aims to integrate restoration application methods with Wabi-Sabi aesthetic theory, a philosophy that embraces the beauty found in the imperfection. In this regard, two restored historic buildings were selected to analyze the Wabi-Sabi aesthetic principle in their restoration.

A. CASE STUDY

One of the case studies is the restoration of Colonial House in Merida, Mexico (see Figure 1). The original construction date of the building is 1986 and the restoration project was completed in 2016 according to the design of Nauzet Rodriguez. The project covers an area of 450 m² and includes work to improve the Colonial House [14].



Fig. 1 View of Colonial House [14]

The new function of the building, which has now been expanded to two stores in the previously single-store green space, has been designated as a bar. As shown in Figure 2, the primary objective of this restoration was to preserve the remnants of its historical significance [14].

In developing the restoration project, careful consideration was taken to the original value of the building, its architectural identity, and Mexico’s national monument protection regulations. The design process respected the functions historically associated with the structure. As shown in Figure 2, the exterior facade was reinforced while maintaining the building’s appearance and relationship with its surroundings.



Fig. 2 View of Colonial House after restoration [14]

The other case study is the Flahalo office in Shenzhen, China, which was built in 1958 and the restoration project was completed in 2015. The restoration project, designed by the architecture firm Atelier LI, covers an area of 350 m². Originally, a glass factory, the building has been converted into office space through a careful restoration process, as shown in Figure 3. The building consists of three main parts: shared work areas, individual work areas and circulation areas with iron gates.



Fig. 3 View of Flahalo office after restoration [15]

B. METHOD

The study evaluates and analyses the principles of Wabi-Sabi aesthetics in restored heritage buildings, with the aim of embracing the imperfections that time brings to these structures as a form of beauty. For this purpose, the researchers used the principles of the Wabi-Sabi aesthetic theory to evaluate selected historic buildings.

In the first step, authors studied and reviewed the principles of the Wabi-Sabi aesthetic theory through various books, papers, and theses.

In the second step, authors selected two restored heritage buildings, which closely followed the principles of Wabi-Sabi aesthetics.

In the third step, authors identified and discussed the principles that were or were not used in the aforementioned restored buildings.

III. RESULTS AND DISCUSSION

In order to analyze the principles of the Wabi-Sabi aesthetic theory in relation to various issues such as materials, form, texture, color, balance, spirituality, and historicity mentioned in the literature review, two heritage buildings will be discussed to see if these principles have been applied in their restoration. In this section, we will analyze each of the issues in each of the two buildings, one at a time. In all figures, the left or top images belong to the restoration project of Colonial House, while the right or bottom images refer to the restoration project of the Flahalo office.

Natural and raw materials: In the Colonial House restoration project, only wood and iron materials that harmonize with the building were used. While elements in good condition were preserved in their original state, those that could not be maintained were replaced with replicas, as shown in the left view of Figure 4. However, this approach does not fully align with the Wabi-Sabi aesthetic theory, which emphasizes the importance of preserving the aesthetic integrity of the building at all circumstances. Where preservation is not possible, any changes should be expressed using the simplest colors and materials. In the Flahalo office restoration project (see right view of Figure 4), the fundamental principle guiding the restoration was the protection of the original materials, with the process carried out with minimal intervention. The materials used in the building included red brick, epoxy flooring, concrete, and glass. The use of the glass in the construction of Colonial House is motivated by several factors: it relates to the original function of the building, promotes transparency in the interior, facilitates the division of spaces, and helps to prevent the deformation of worn elements.

As shown in the right view of Figure 4, the Flahalo office restoration project did not alter the joinery; the worn window opening was left untouched. This restoration approach embodies the Wabi-Sabi philosophy of accepting imperfection

as it is. The comparison in Figure 4 highlights the distinction between appropriate and inappropriate methods of using materials within the Wabi-Sabi aesthetic theory at the joinery level.



Fig. 4 Left view refers to the Colonial House and right view refers to the Flahalo office, Image source: [14] & [15].

Natural forms: Top view of Figure 5 illustrates the Colonial House restoration project, while bottom view refers to the Flahalo office restoration project. In the restoration of the Colonial House, the overriding principle was to maintain the continuity of the building's original forms. The Wabi-Sabi aesthetic theory emphasizes the use of curved, natural forms rather than sharp lines. However, as can be seen in the top view of Figure 5, the building contains furniture with angular designs. Such non-amorphous structures are often excluded from Wabi-Sabi because of their association with artificiality. Similarly, in the Flahalo office restoration project, shown in the bottom view of Figure 5, there is a shelving system with sharp lines.



Fig. 5. Top view refers to the Colonial House and bottom view refers to the Flahalo office, Image source: [14] & [15].

Natural textures: As shown in Figure 6, the use of natural textures is a fundamental theme in both restoration projects. As illustrated in the left view of Figure 6, the restoration process has carefully preserved the wall textures that have been developed over time through lived experience. This

appreciation of the history and the lived experience of the building is essential to the Wabi-Sabi philosophy. The right view of Figure 6 also reflects an adherence to the principle of natural texture within the Wabi-Sabi framework. The respect for texture shown in both restoration projects embodies one of the core tenets of the Wabi-Sabi aesthetic theory and demonstrates its effective application in both buildings.



Fig. 6 Left view refers to the Colonial House and right view refers to the Flahalo office, Image source: [14] & [15].

Pale colors: The Colonial House restoration project uses colors inspired by nature such as brown, green and white as shown in the left view of Figure 7. For elements that could be preserved, natural colors have been applied in a way that does not detract from the main features of the building. The restoration work, particularly in the wet space such as the toilets, may not be fully in line with other Wabi-Sabi principles, it does adhere to the principle of simplicity in color. As shown in the right view of Figure 7, pastel colors are used in most sections of the restored building, while white, grey and black clearly mark interventions, particularly in circulation and wet spaces. Overall, both buildings demonstrate a thoughtful and appropriate use of color in line with the principles of Wabi-Sabi.

Balance: The restoration of the Colonial House effectively embodies the principle of balance as a core tenet of the Wabi-Sabi philosophy that resonates throughout nature, as illustrated in the left view of Figure 8. This philosophy emphasizes harmony between the elements and underlines that nothing in nature is excessive. In the left view of Figure 8, a careful balance of color, material and texture is maintained throughout the building, creating a cohesive aesthetic. In contrast, the right view of Figure 8 shows a disruption of this balance. The use of metallic materials in the circulation areas, coupled with the stark black and white contrast in the wet areas, disrupts the harmony between these areas. This imbalance detracts from the Wabi-Sabi principle of unity and tranquility.

Spirituality: In the Colonial House restoration project, the traces of the past are displayed while respecting the overall spirit and emotional feeling of the building, as shown in the top view of Figure 9. The restoration technique used in Colonial House allows the natural deterioration of the building to be highlighted, thus preserving its original values. However, the incorporation of new and unused materials in the construction of the original building of Flahalo office is not in keeping with the Wabi-Sabi philosophy of restoration, which values emotional depth and authenticity (see the bottom view of Figure 9). According to the aesthetic theory of Wabi-Sabi,

materials from the past should be reinforced through structural corrections rather than replaced. The approach shown in the top view of Figure 9 is therefore not in keeping with the principles of Wabi-Sabi.



Fig. 7 Left view refers to the Colonial House and right view refers to the Flahalo office, Image source: [14] & [15].



Fig. 8 Left view refers to the Colonial House and right view refers to the Flahalo office, Image source: [14] & [15].

A similar misalignment can be seen in the bottom view of Figure 9, which illustrates the Flahalo office restoration project. The use of materials in this restoration also deviates from the principles of the Wabi-Sabi aesthetic theory, suggesting that such practices are not appropriate for projects that seek to embody this philosophy.

Historicity: The restoration of the Colonial House was carried out with a commitment to faithfully preserve the traditional character of the building, largely embodying the principles of the Wabi-Sabi aesthetic theory, as illustrated in the top view of Figure 10. This approach allows the Colonial House to provide a unique experience for visitors in Merida, Mexico, displaying its distinct character and identity. In contrast, the Flahalo office restoration project, shown in the bottom view of Figure 10, preserved the main circulation elements and the floor plan while adapting the other functions to the building. This decision was made in order to maintain the link between the space and its historical context. As shown in the bottom view of Figure 10, the Flahalo office respects the lived experience of the building and its past. However, this respect does not extend to the entire building; in particular, in the workspaces, modern materials have replaced older ones. This shift has partially undermined the principle of historicity within the building.



Fig. 9 Top view refers to the Colonial House and bottom view refers to the Flahalo office, Image source: [14] & [15].



Fig. 10 Top view refers to the Colonial House and bottom view refers to the Flahalo office, Image source: [14] & [15].

IV. CONCLUSION

According to the Wabi-Sabi aesthetic theory, two restored historic buildings were evaluated and analyzed in terms of material, form, texture, color, balance and historicity. According to the analysis, the principle of Wabi-Sabi aesthetic theory was not fully embodied. However, the restoration of the Colonial House is very close to the aesthetics described by the Wabi-Sabi philosophy. In this building, we can see the passing of the time by focusing on the imperfection, impermanence and incompleteness of beauty.

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