11. ULUSLARARASI MÜHENDİSLİK, MİMARLIK VE TASARIM KONGRESİ

11th INTERNATIONAL CONGRESS ON ENGINEERING, ARCHITECTURE AND DESIGN

10-12 Haziran
2023, İstanbul

10-12 June
2023, İstanbul

www.muhendislikmimarliktasarimkongresi.org

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Güven Plus Group Inc. Publications: 14/2023 **Book Size and Release Date:** 21 x 29,7 cm • 20 June 2023

Publisher Certificate No: 52866 **E-ISBN:** 978-625-6471-01-6

Print-Binding

GÜVEN PLUS GROUP CONSULTANCY INC. PUBLICATIONS®
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AN EVALUATION OF THE FACADE DESIGN OF ATIK VALIDE HOSPITAL (DARÜŞŞİFA) RESTORATION

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Abstract: Atik Valide Complex built in Üsküdar is one of the latest works of Mimar Sinan. It is also the largest building group built on the Anatolian side of Istanbul by Sinan. It consists of many different types of buildings like mosques, madrasahs, dervish lodges, primary schools, darülhadis and darülkurra (Islamic schools), imaret (charity organization), a hospital, and a Turkish bath. The complex which was reused for many different purposes in the past, was involved in a restoration process in the 2000s. The hospital (darüşşifa) section of the complex is adapted to reuse as an education building now to be used as a part of an existing university. During the restoration application, all over the facade was covered with blue-toned spider glass. This design blocked the perception of the original porticoes, the proportions of the windows, and even the floor slab level, caused the building to be seen as a glass mass. In addition, this glass facade cladding caused the semi-open space with the portico in the courtyard to turn into an indoor space, causing the spatial qualities of the building to disappear. Afterward, the facade was renewed with a different restoration approach because of the negative public reactions. In the new design, the glass spider cladding was removed completely, the porticoes were turned into semi-open spaces again. Within the scope of the study, two different facade designs applied in the complex were evaluated. Qualified examples of the use of glass surfaces in adaptive reuse projects have been examined.

Keywords: Adaptive Reuse, Conservation, Historical Hospitals

INTRODUCTION AND THEORETICAL FRAMEWORK

During the Ottoman period, education, health, and social services the city needed were provided by foundations established by individuals. A huge amount of Sinan's professional activity as an architect was designing the complexes built by these foundations. The construction of such centers is a tradition that passed from the Seljuks to the Ottomans. In this regard, Sinan's progress is based on the designs of the period of Fatih and Bayezid II (Ahunbay 1989:133).

Atik Valide Complex is a significant building group as it is the last complex built by Sinan (Eriş et al., 2013:100). It consists of a mosque, madrasa, dervish lodge, primary school, darülhadis, darülkurra, imaret, hospital, and bath. Atik Valide hospital, which was examined within the scope of the study, was used in the past for many different functions like an epidemic hospital, mental hospital, military building, tobacco warehouse, prison, and high school. Various additions and design changes were applied during the re-functioning. The last restoration of the building was made to reuse it as an educational building.

PURPOSE AND SCOPE

The aim of this study is to evaluate two different facade designs applied during the restoration made with the aim of re-functioning in Atik Valide hospital from an architectural point of view. The other aim of the study is to present several examples of qualified applications of glass surfaces used in adaptive reuse projects. Thus, by concluding in the context of historical building authenticity, it is to bring some suggestions for new applications in Türkiye in the intersection between conservation-reusing practices.

METHOD

The features of the facade designs applied in the restoration of the Atik Valide hospital were evaluated within the framework of the principles of protection and adaptive reuse in historical buildings. The best-known method in the application results in the field of architectural preservation is to get expert opinions. In some studies, results are obtained through surveys based on city-dwelling opinions. In this study, the authors evaluated before and after visual effects of the facade based on personal observation. Some suggestions and results for new applications were obtained by comparing them with similar examples (Figure 1).

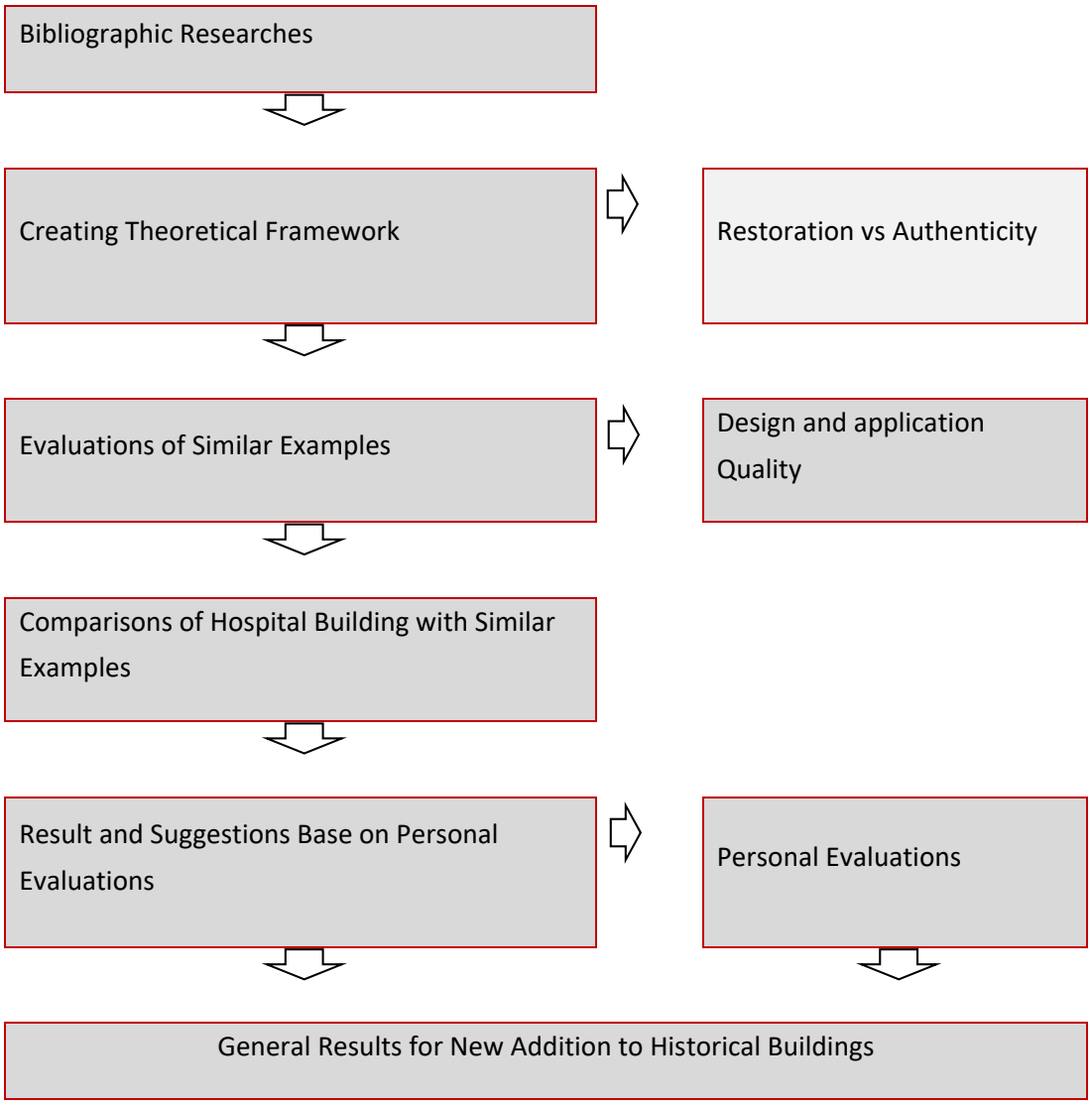


Figure 1. Method of Study

ATIK VALIDE COMPLEX (KÜLLİYE)

Atik Valide Complex is a 16th-century building complex built by Nurbanu Sultan who is the wife of Selim II and mother of Murat III. It is built on 28 decares of land and is the largest project of Sinan built on the Anatolian side of Istanbul (Sabırlı, 2012:5). It was called "Valide Sultan Külliye" when it was built. After the Yeni Valide Complex, which was built by mother of Ahmet III in the coastal part of Üsküdar in the 18th century, it was named "Atik (old) Valide Complex".

Atik Valide Complex was built on the borders of the city in the period it was built. The complex was served to a growing part of the city that is to accelerate its development. It also served trade caravans as this location was found at the endpoint of the Anatolian trade route (Akgün and Türk, 2005:117). In Figure 2, parts of the complex are shown on the restitution drawing.

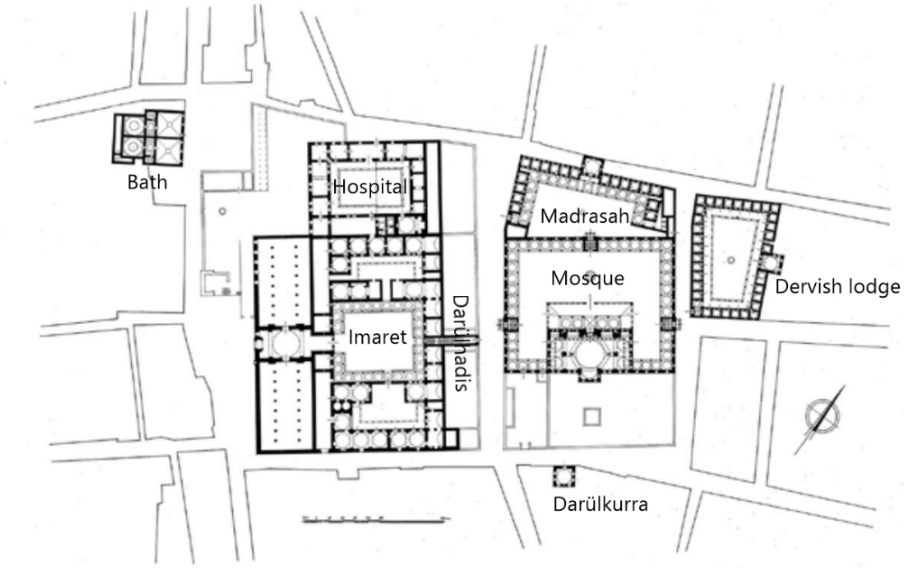


Figure 2. Atik Valide Complex Restitution by Ali Saim Ülgen (Ahunbay, 2013:12)

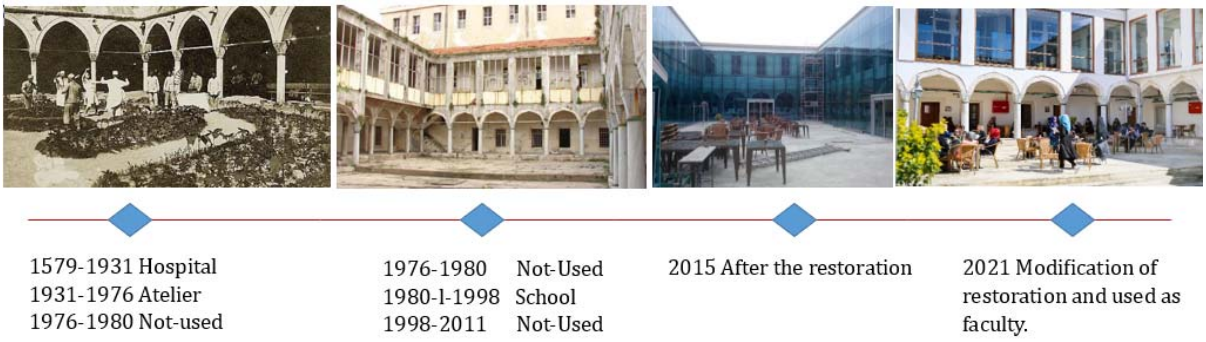
Atik Valide Complex was gradually built on a sloping land with an arrangement that respects both terrain conditions and existing urban texture (Eyice 1989:171). Sinan planned the hospital (darüşşifa) to the left side of this social building complex and designed a separate entrance. There are indoor patient rooms behind the portico which was formed by columns and stone arches around the rectangular courtyard. These spaces, which is not existing today in their original state, were originally covered with brick domes in the past (Cantay 1988:359).

The entrance of the building is provided through the arched door on the north facade. From here, it is passed to the rectangular courtyard with a portico. The courtyard measures approximately 44 meters by 35 meters. It is understood that this two-storey building with a wooden roof is actually a single-storey building covered with masonry domes in the past (Tanman, 1991). The second floor was built on brick vault ceilings after removing the domes during the period when the building was used by Asakir-i Nizamiye (1834-1865) (Eriş et al., 2013:108). The rooms of the building exist behind the portico section. However, these places have lost their originality by being completely changed to be used for other purposes (Yılmaz, 2001:57) (Figure 3).

ATIK VALIDE HOSPITAL RESTORATION AND ADAPTIVE REUSE

Giving new functions to old buildings is a concept that emerged in the 1970s (Plevoets and Van Cleempoel, 2013). There are many reasons for refunctioning. Some of those; becoming unusable of the buildings after changes in living habits and working conditions, the need for renovation of buildings in order to ensure the continuity of the existing built environment, continuing of the old building stock that needs modernization continues to

wear out over time, reasons such as the need to renew old buildings with more sustainable technologies to tackle climate change (Douglas, 2006:95). Reuse extends the life span of the building and reduces its carbon footprint while preserving its cultural heritage values (Conejos et al., 2011:2).



Fiqure 3. Summary of historical background of building (Kutlu and Ergün, 2021:176)

In cities such as Istanbul that have existed for millennia, it is very important to preserve the quality old building stock and to ensure cultural continuity in this way. Article 5 of the Venice Charter recommends that old buildings could be re-functionalized for social uses.

Atik Valide building was functioned as a hospital when it was built. It was used as a military hospital under the name of Asâkir-i Hassa Toptaşı during the reign of Mahmud II. It was re-functionalized in 1873 and used as a mental hospital until 1927 under the name Toptaşı Bimarhanesi. With the transfer of the bimarhane to Bakırköy in 1927, the building was put into use as a hospital, similar to its first function. Darüşşifa was functioned as Tekel Leaf Tobacco Maintenance Workshop in 1931 and was used in this way until 1976. As a result of the relocation of the workshop, it started to be used as a high school under the name Üsküdar Imam Hatip between 1980-1999. The building has been used as Fatih Sultan Mehmet University Faculty of Arts and Sciences since 2011 (Kutlu ve Ergün, 2021:176).

According to the article of Kantarcıoğlu (2007), the author of the Atik Valide Complex restoration project the restoration works were based on the condition of the building at the beginning of the 20th century. Restoration work includes purging, consolidation, completion and renewal processes. It has also been stated that the facade of the hospital building will be covered with a "transparent cover".

During the restoration, a spider glass facade application was applied to the hospital courtyard, starting from the floor with the porticoes and extending to the eaves of the building. This application was made by creating a secondary facade, not to close the gaps

of the building. The glass type chosen for the facade is blue reflective glass. Bright aluminum joinery is used on the windows and doors opened for ventilation on this facade.

Glass surfaces and automatic doors applied to the facade of the hospital courtyard in 2015 caused great reactions in the public, this practice has been widely criticized in the press. The author of the restoration project declared that this practice took place without her consent, upon the reactions. The main reason why the application is so criticized is, the color reflective glass facade preferred for the glass facade completely masks the original structure behind it and cannot fulfill the "transparent cover" function intended in the design. (Figure 4). This design prevented the perception of the original porticoes, the proportions of the window openings, and even the level of the floor slab and caused the building to be read as a massive glass mass from the outside. In addition, this practice caused the semi-open space with the portico in the courtyard to turn into a closed space, causing the spatial qualities of the building to disappear.

After the reactions, this facade application was removed. In the new facade application, the cloisters were turned into semi-open spaces again and the window spaces on the first floor are covered with transparent glass, preserving their original proportions. (Figure 5). Thus, the spatial qualities of the building and the dimensions and proportions on the façade became visible again.

Figure 4. Glass facade of hospital[24], **Figure 5.** Facade of hospital without glass material[25]

TRANSPARENT SURFACES IN ADAPTIVE REUSE PROJECTS

In projects to give new functions to old buildings, glass surface applications are frequently used in order not to override the original space. However, for the glass surfaces to truly create the perception of transparency after the application, the glass surfaces should be

[24] https://hthayat.haberturk.com/yasam/kultur-sanat/haber/1031718-restorasyon-kurbani-olmus-tarihi-yapilar/11

[25] https://aday.fsm.edu.tr/Fsmvu-de-Yasam--Yerleskeler--Uskudar-Atik-Valide-Yerleskesi

preferred without color, designing the structure that will carry these glass surfaces as thin as possible, it may even be possible to prefer glass for the facade carriers. In this approach, the main idea is to present a neutral design approach without competing with the historical building as much as possible.

Figure 6 shows an 18th century statue in the United States. The completion design of the remains of the house with glass facade elements is included. The refunction project belongs to Machado Silvetti Architecture. The building was re-functionalized as an "exhibition and conservation center". It was emphasized that the completion of the building with transparent glass surfaces is important in terms of exhibiting the original materials and workmanship of the period. Transparent glasses were preferred in the selection of glass surfaces, and glass elements as wide as possible were used to prevent the appearance of fragmented facades and to increase transparency.

In the renovation project of the Africa Museum designed by Stéphane Beel Architecture in Belgium, transparent glass surfaces were used on the back surface of the colonnaded section to ensure that the glass facade application does not override the original facade features. (Figure 7). In addition, dark colors are preferred on the carriers and joinery of the door and glass surfaces, avoiding an application that competes with the building.

Figure 6. Restoration proposal from USA[26]

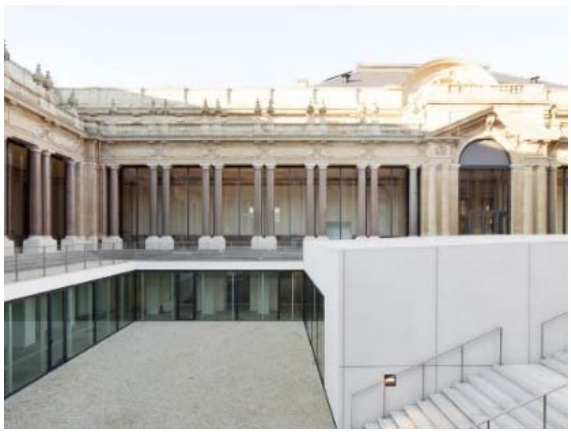


Figure 7. African museum in belgium[27]

The glass façade design of Esma Sultan Mansion, whose outer walls have survived due to a fire in Istanbul, was carried out in such a way that the original structure of the building can be perceived from both the interior and the exterior. (Figure 8). In this example designed by GAD Architecture, completely colorless, transparent glasses were preferred

[26] https://www.arkitera.com/haber/yalin-ve-tarihi-seffafligi-tesvik-eden-cam-ev/
[27]https://www.archdaily.com/924538/africa-museum-in-tervuren-stephane-beel-architects?ad_medium=gallery

for the glass surfaces. By designing the new structure as an independent box inside the outer shell, the original structure is brought to the fore.

Figure 8. İstanbul Esma Sultan yalısı[28]

CONCLUSION

Re-functioning is a form of protection that allows the reuse of buildings that are important for history and society. Sometimes the original function of the building can be brought back to the building, and sometimes different contemporary uses can be adapted to the building. Glass facade applications are frequently preferred in structures that are intervened for protection and reuse purposes. However, the history of materials and application should not be chosen in a way that will destroy the original qualities of the building. These applications can be done in many different ways as examined in the examples. Although significant knowledge has been accumulated in architecture and conservation practices in Türkiye, the concept of conservation is discussed in parallel with the results of the applications. It is observed that many re-functioning practices in Türkiye are fare from the basic concept of architectural preservation. Conservation practices have not yet reached the required construction quality. In conservation applications, the design quality and inputs to design couldn't be efficiently evaluated yet. It has been observed that different side effects on historical buildings of applications are not foreseen in decision process. Using historical buildings with appropriate functions and adapting them to contemporary life is a sustainable activity. Considering the uniqueness and characteristics of the historical environment, it should not be risky activities. Applications must be supervised by a scientific committee. Visual and model making for the final product should be encouraged. Design and applications should be carried out in a way to preserve the originality of the historical building. The application quality must be increased.

[28] http://www.hasmatik.com.tr/celik-konstruksiyonlu-transparan-cephe.html

The unqualified glass façade applied in the hospital building, which is a part of the Atik Valide Complex, one of the most important social complexes in Istanbul, it caused reactions by causing the original quality of the building to be completely lost. Although this restoration error was corrected afterwards, historical buildings should not be places to experiment on. It is very important in terms of transferring our culture to future generations and protecting our world heritage to carry out more qualified practices in the protection of such qualified and important structures for the society.

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