

Investigation Of Reconstruction Applications Of Monumental Structures And The Example Of Hagia Sophia Fatih Madrasah



Authors Dr. Fatma SEDES
Address Istanbul Aydin University Faculty Member of
Architecture and Design
(ORCID: 0000-0002-4064-7381)
E-Mail fatmasedes@aydin.edu.tr

Özgür GÜVEN
Istanbul Aydin University
Architect

ABSTRACT

It is focused on the examination of reconstruction practices in historic architecture and the reconstruction of Hagia Sophia Fatih Madrasah. It is usually defined as the reconstruction of a building of historical value that has been lost, damaged or demolished over time by remaining faithful to its original state. Here the importance of history and aims of reconstruction are discussed in detail.. The history, development, methods, criteria and standards of reconstruction are emphasised. Reconstruction practices in the World and in Turkey are analyzed. As a result of this examination, the benefits and problems of reconstruction and the effect of these practices on the protection of cultural heritage are discussed. A detailed examination of construction of the Hagia Sophia Fatih Madrasah is tried to be studied. The building is located in the Historical Peninsula of Istanbul and focuses on the reconstruction of an important historical building, one of the oldest educational structures of the Ottoman period. The history, architectural features, building materials and construction techniques of the madrasah are investigated. In addition, the reconstruction processes of the madrasah are analyzed in detail. Opinions on the reconstruction of Hagia Sophia Fatih Madrasah are discussed. The difficulties encountered in the reconstruction process, The decisions which were taken and the changes which were made are analyzed. In addition, the direct and indirect effects of the reconstruction of the madrasah are emphasised. In conclusion, it has taken notice the importance of reconstruction practices in the process of conservation and reconstruction of cultural heritage. It is analyzed examples of reconstruction in the world and in Turkey and presented the advantages and disadvantages of these practices.

Keywords: Reconstruction, Hagia Sophia Fatih Madrasa, rebuilt, cultural heritage

1 INTRODUCTION

1.1. Historical, Cultural and Cultural Problems Encountered in Reconstruction Projects

1.1.1. Technical Challenges

One of the biggest challenges in reconstruction projects are to preserve the originality of the building. History in historical difficulties lack of documentation, loss of original materials, changes in architectural styles over time.

There are difficulties such as changes, adaptation of the structure to static and functional standards. What is important here is the original design, materials and construction of the

building. Techniques must be understood correctly. Cultural difficulties are the correct understanding of the building's place in cultural history. Correct interpretation and respect for the opinions of local people is a necessity. While preserving the cultural originality of the building, it also provides contemporary (Fig 1).

It should be ensured that the needs are met. Technical difficulties in the reconstruction of historical buildings are generally related to the original structures. It is the imitation of difficult and complex motifs and building systems of the structure. Technical personnel specialized in restoration in reconstruction applications finding, applying traditional methods, finding specialized masters.

There are also difficulties in such matters.

Generally in reconstruction applications traditional materials are used: Stone, brick, wood, metal materials and natural mortars are made from some of these materials. Stones often have unique types, colors and textures are chosen as compatible. Bricks for walls, arches, domes and it is used in building elements such as floors. Wood is often used for interior elements and structure. Iron and other metals are also used as beams or decorative used as elements. Modern materials are also used in reconstruction. They can be used, but due to the use of cement should be avoided. Coming from non-traditional materials: Some chemical materials such as epoxy, crack can be used in repairs. It is also important:

Environmental and Social Problems Encountered in Reconstruction Projects and Ethical Challenges

The environmental effects of the reconstructed structure should be taken into consideration. As it should be in other buildings, it is also used in reconstruction projects. Sustainable issues such as materials, energy savings and carbon footprint should be taken into account. This efficient use of resources, reduction of waste production and renewable energy resources should also be used. Architects reconstruction should try to find solutions to these issues in their projects. Buildings directly or indirectly affect the societies in which they are located. Therefore, buildings must comply with the needs and wishes of the society. Often in reconstruction applications, people have disagreements. The decisions of the project must be taken consciously. Accepting the historical background of the building and it is very important not to get sidetracked. Various points of view must be resolved by consensus. Architects must act ethically and responsibly.



Figure 1: Hagia Sophia Fatih Madrasa before its demolition, 7 February 1936

Source: Council Archive, No: 1488

In the southeast is the outer Hagia Sophia Fatih Madrasah in Fatih is located in the area near Soğukçeşme Street (Fig 2,3).

wall of Mahmut I. İmaret and in the northwest there is the Caferiye Madrasah. It is so close to other important buildings such as the Blue Mosque and Topkapi Palace. Millions of people come to the region every year to discover its rich heritage and historical assets.



Figure 2.: Location of Hagia Sophia Fatih Madrasa on the parcel map.

Source: Created Autocad program from the map file (Özgür GÜVEN).



Figure 3: Satellite image of Hagia Sophia Fatih Madrasa, 2023

Source: Created using Google Earth (Özgür GÜVEN).



Figure 4: Hagia Sophia Fatih Madrasa before its demolition, 26 December 1934

Source: Council Archive, No: 1154

The madrasah building underwent serious repairs and architectural changes, with the lower floor being made of masonry and the upper floor being made of stone. The floor was converted into a wooden structure. During the reign of Sultan Abdulmecid Hagia Sophia Madrasah was repaired by Haçadur Kalfa in 1841-1842 has been made. 1869-1870 by Şehremini Server Pasha during the reign of Sultan Abdülaziz It was demolished between 1873-1874 with the permission of the Sultan. At 20th century it was used as an orphanage at the beginning. The new madrasah building was set back from Hagia Sophia and located on the western facade. The last Hagia Sophia Madrasah was used as Daru'l-Hilafetü'l-Aliye Madrasah. When Hagia Sophia was declared as a Museum in 1924, the Madrasah remained open for a while. It served as Orphanage by Istanbul Municipality (Fig 5).



Figure 5: Rear façade of Hagia Sophia Fatih Madrasah taken from Soğukçeşme Street before it was demolished - There is a sign "ISTANBUL MUNICIPALITY OFFENSE CHILDREN'S HORRY" on the back door, 26 December 1934 Source: Council Archive

Hagia Sophia, together with all its outbuildings, was transferred to a museum by the Directorate of Antiquities and Museums. The madrasah was completely demolished by its director, Aziz OGAN.

Before it collapsed, photographs were taken and plans were drawn by Architect Nihad Bey. In the 1980s, under the leadership of Master Architect Alpaslan Koyunlu, the building was rebuilt. According to a news report in 2014, it was built in the courtyard of the Hagia Sophia Museum. The Fatih Madrasa Project, which is planned to be built, has the status of being a World Heritage Site.. International Council on Monuments and Sites Turkish National Committee (ICOMOS) opposed the project, interpreting it as "building fake antiquities" came out. ICOMOS believes that if the madrasah is built, Hagia Sophia will not become a World Heritage Site. It was stated that its inheritance status would be in danger.

With his objection, it was decided to postpone the project. But later independent Environmental Impact Assessment Report was prepared by experts. Excavations have been initiated to unearth it. As a result of these studies, a large part of the foundations of the main madrasah structure dated have been unearthed. In 2008, Istanbul IV. Culture and Nature Center ,permission decision numbered 1965 of the Regional Assets Protection Board dated 20.02.2008 research excavations continued in the region. In this process, the existing structure of the building, surveys of the foundation ruins were drawn by the decision of the same Board dated 28.01.2009 .Sufficient scientific data for reconstruction was accepted. With the decision, the building was registered as a cultural asset that should be protected. Architect Alpaslan KOYUNLU's research excavations in 1982 As a result, as seen in the aerial photograph, the foundation remains of the building. The ruins of the madrasah with its walls, waterways, fountain and water cistern were revealed (Fig 6,7).

Rubble stones, bricks and some spolia were used on the foundation walls.

After the repairs and survey works the area is opened to visitors. These ruins were from the last madrasah building dated 1874. These are the remaining traces and reflect the design of the ground floor.



Figure 6: Status of the Hagia Sophia Fatih Madrasa building area – View from the northwestern minaret of Hagia Sophia, December 2017



Figure 7: Foundation walls revealed after cleaning Source: (Özgür GÜVEN)

Years later, the Cultural Heritage Preservation Regional Board dated 19.12.2012. and the restitution and reconstruction prepared as a result of Decision No. 1069. Projects were found suitable. In line with this decision, the work was completed on 09.12.2013. However, in accordance with International Agreements, UNESCO Impact Assessment Report for World Heritage Cultural Properties has been requested.



Figure 8: Reconstructed Hagia Sophia Fatih Madrasa and Hagia Sophia Mosque, 2022 (Özgür GÜVEN)

The actual workplace delivery has been made however, before the work is completed on December 31, 2019. Later, by the General Directorate of Foundations on 25 April 2021, the completion of the Hagia Sophia Madrasa was delivered. The completed building was allocated to Fatih Sultan Mehmet Foundation University. It was opened on 15.04.2022. The construction techniques used when the madrasah was built and considering its materials, it is considered a technically advanced structure. Stone walls, use of bricks and wooden details of the madrasah construction reflects the mastery of techniques. The structural features of Hagia Sophia Madrasah are also important from a technical perspective. The madrasah was designed as a two-storey building and had a large courtyard (Fig 9). An architecture realized in accordance with the construction techniques of the period shows planning. The reconstruction of Hagia Sophia Madrasah has received reactions from different segments of society.

It enables the transfer of culture to future generations. On the other hand, another part is that Hagia Sophia is a UNESCO World Heritage Site.



Figure 9: Reconstructed Hagia Sophia Fatih Madrasa, 2022 (Özgür GÜVEN)

Due to its status, He expressed concern that it may be contrary to international rules and agreements. This group believes that any intervention puts the universal values of Hagia Sophia at risk. He is of the opinion that the construction works have caused international reactions.

Any structural work built in a sensitive geography such as the area around Hagia Sophia concerned that the change may have a negative impact on the entire area. It stated that his inheritance status of Hagia Sophia would be in danger.

Culture Ministry officials stated that the madrasah needed an additional building for the museum staff. They stated that they would welcome it and that it was not related to religious education.

Reconstruction of the Madrasa, a tighter connection between Hagia Sophia and the Madrasa will create a bond and strengthen the ties of the past in the surrounding area.

With the re-functioning of the madrasa as an educational structure, information and will ensure the spread of culture and the contribution of well-educated individuals to society. Research excavations carried out during reconstruction works.

Application of techniques may cause time and resource problems. Vibrations and irregularities that may occur during the reconstruction process, strengthening the foundation walls and stone walls of the building. Carrying out ground improvement works and strengthening the foundation

It may also cause additional costs and loss of time. (Additional time and cost were required for its reinforcement.).

2. CONCLUSION

Reconstruction of cultural assets is an important part of the history and history of societies around the world. It plays an important role in preserving cultural values. This is rebuilding although the work is carried out meticulously and faithfully, between reconstruction practices in the world and practices in Turkey. Reconstruction practices in the world are less common. It was built after events such as war and natural disasters. Except for these events maintenance and repair, restoration, of the buildings were carried out, We see that it is not left behind. The applications are generally documented by carrying out under the guidance of drawings, photographs and expert reports. It is important to point out. These applications reflect the original characteristics of the reconstructed buildings that provide a close resemblance to their state.

Many problems were encountered due to this. To prevent this from happening, research excavations and project planning must be carried out before starting construction. Completing the designs will be healthier and more efficient.

Most of the time, incomplete reports, faulty projects construction is halted due to poor designs and faulty cost calculations, resulting in causes waste of time and resources.

The project should be done before sufficient research excavations are carried out in the area. Many problems were encountered due to this. Such disruptions in the futureTo prevent this from happening, research excavations and project planning must be carried out before starting construction. Completing the designs will be healthier and more efficient.

Restoration and reconstruction of state institutions in recent years attaches greater importance to strict adherence to standards can be seen. Adequate archival research, documentation and project designs. It is a positive development that applications without permission are no longer allowed.However, despite these advances, there are still controversial practices, albeit exceptional.Although social and public demands create significant pressure,It is of great importance not to compromise on qualified reconstruction practices.

BIBLIOGRAPHY

- AUSTRALIA ICOMOS. (2013). The Burra Charter: The Australia Icomos Charter for Places of Cultural Significance, Australia ICOMOS.
- BALTACI, C. (1976). Xv-Xvi Asırlar Osmanlı Medreseleri: Teşkilât : Tarih,İrfan Matbaası.
- CHARTER ATHENS. (1931). The Athens Charter for the Restoration of Historic Monuments, Le Corbusier and CIAM.
- COUNCIL OF EUROPE. (1985). Convention on the Protection of the Architectural Heritage of Europe, Granada, Council of Europe.
- DE NAEYER, A., ARROYO, S. ve BLANCO, J. (2000). Krakow Charter 2000: Principles for Conservation and Restoration of Built Heritage, Bureau Krakow 2000.
- ICOMOS-IFLA. (1982). The Florence Charter, ICOMOS-IFLA.
- ICOMOS. (1987). Charter for the Conservation of Historic Towns and Urban Areas (Washington Charter), Washington, UNESCO.
- ICOMOS. (2003). Principles for the Analysis, Conservation and Structural Restoration of Architectural Heritage, ICOMOS.
- INTERNATIONAL COUNCIL ON MONUMENTS AND SITES. (1964). International Charter for the Conservation and Restoration of Monuments and Sites, London, ICOMOS UK.
- İSTANBUL BÜYÜKŞEHİR BELEDİYESİ. (2014a). İstanbul'un Kaybolan Kültür Varlıkları - Suriçi (Fatih) Camileri Ve Mescidleri -I-, İstanbul Kültür A.Ş.
- 150
- İSTANBUL BÜYÜKŞEHİR BELEDİYESİ. (2014b). İstanbul'un Kaybolan Kültür Varlıkları - Suriçi (Fatih) Camileri Ve Mescidleri -II-, İstanbul Kültür A.Ş.
- KOÇU, R. E. (1960). İstanbul Ansiklopedisi, İstanbul Ansiklopedisi ve Neşriyat Kollektif Şirketi.
- LABADI, S., GILIBERTO, F., ROSETTI, I., SHETABI, L. ve YILDIRIM, E. (2001). Heritage and the Sustainable Development Goals: Policy Guidance for Heritage and Development Actors, ICOMOS.
- NARA ICOMOS. (1994). The Nara Document on Authenticity, ICOMOS.
- PARIS UNESCO. (2011). Recommendation on the Historic Urban Landscape, UNESCO.

- SEDES, F. (2014). Zeyrek Evleri, İstanbul Birsen Yayınevi.
- TAŞKÖPRÜLÜZÂDE İSÂMUDDİN EBU'L-HAYR AHMET EFENDİ. (2007). Osmanlı Bilginleri, İstanbul, İz.
- UNESCO. (1972). Convention Concerning the Protection of the World Cultural and Natural Heritage, Paris, UNESCO.
- ÜNVER, A. S. (1946). İstanbul Üniversitesi Tarihine Başlangıç: Fatih, Külliyesi ve Zamani İlim Hayatı, T.C. İstanbul Üniversitesi Yayınları.
- ÜNVER, A. S. (1948). Türk Pozitif İlimler Tarihinden Bir Bahis Ali Kuşci Hayatı ve Eserleri, İstanbul, İstanbul Üniversitesi.
- MAKALELER
- BEYGI, S. ve KHOSRAVI, M. (2020). "Earthen Architecture as an Enabler for Regenerating the Identity of Bam after the Earthquake", LEHM 2020 – 8th International Conference on Building with Earth, sayı 1.