

Research Article

Building Design in Historical Environment-Periodical Study-Haydarpaşa / Selimiye

Safiye Irem Dizdar* 

Department of Architecture, Yeni Yüzyıl University Faculty of Engineering, Architecture, Istanbul, Turkey

Abstract

Turkey's geography is rich in cultural diversity. The existing diversity is reflected in all areas of life. Among these areas, architecture cannot be ignored both in terms of scale and building stock. In this context, architecture is in constant relationship with cultural heritage. In a professional sense, it is inevitable to produce new buildings in the historical environment and to know how the cultural heritage will form an input to the design. For this reason, studio studies, which are the basis of architectural education, constitute the most important process. In this context, within the scope of the studio 5 course of the 2023-24 fall semester of the Department of Architecture of Yeni Yüzyıl University, "experimental design of a faculty of architecture between 8000-10000m²" was carried out in Haydarpaşa-Selimiye with the participation of 10 students. Haydarpaşa-Selimiye neighborhood is very rich in terms of many types of buildings built in the 19th and 20th centuries of the Ottoman Empire. The aim of this study was to enable the participating students to develop design approaches sensitive to the historical environment. In the first stage; the area determined as the study area was examined and design problems were aimed to be revealed, and the projects created in this direction were questioned by supporting the determined design criteria and environmental analyzes. In the second stage, design approaches were shaped in line with the environmental analysis and the concept, and periodical study examples emerged. Existing texture-historic environment unity, historical environment-new building design approaches were the achievements obtained at the end of the semester. In the conclusion section; in line with the approaches developed by the students, the evaluation of historical environment data and new building design approaches were evaluated, and the importance of new building designs in the historical environment in architectural education was emphasized.

Keywords

Historical Environment, New Building, Architectural Education

1. Introduction

With the convention made by Unesco in 2003, a turning point has occurred worldwide in terms of increasing awareness of intangible cultural heritage, and cultural heritage conservation studies have been evaluated as "tangible cultural

heritage" and "intangible cultural heritage" [10].

The problem in conservation practices today and before is that the integrity of tangible cultural heritage and intangible cultural heritage is not understood [1, 2].

*Corresponding author: safiyeirem.dizdar@yeniyyuzuil.edu.tr (Safiye Irem Dizdar)

Received: 26 July 2024; **Accepted:** 7 September 2024; **Published:** 29 September 2024



Copyright: © The Author(s), 2024. Published by Science Publishing Group. This is an **Open Access** article, distributed under the terms of the Creative Commons Attribution 4.0 License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution and reproduction in any medium, provided the original work is properly cited.

1.1. Tangible and Intangible Value Relations in Historic Environments

Historic environments are intertwined wholes where different cultures influence each other and are formed by a layered building stock.

The conservation process requires understanding and protecting this mixed formation and transformation of historical environments.

Tangible values and cultural values cannot be evaluated separately from each other. The understanding of intangible values is also based on the understanding of cultural diversity.

1.2. Dynamic/Variable Culture-Space Interactions

When historical environments are considered as mixed wholes in a state of change, the continuity of culture-space interactions continues in the process of formation and change. In this context, along with the relations of tangible and intangible values in the process of change, the historical environment and the new building coexistence gain importance. The effects of time and change on historical environments and their comparison and association with the current situation is an important topic in terms of conservation.

Conservation concept gains consciousness in the architectural environment through education.

In the establishment of this consciousness; both new building designs in the historical environment and studio studies in conservation practices are important. Although designing in the historical environment generally seems to be an issue that restricts architectural freedom, it creates original architectural approaches designed by analyzing the data and creating input to the design [5, 8, 6].

1.3. New Building Design Criteria in the Historic Environment

The design of new buildings in the historic environment is an approach in which different platforms have a say and new practices are harmonized with the historic environment. Discussions on new buildings in the historic environment are in parallel with the increasing concern for conservation.

In the Amsterdam Declaration (1975) published within the scope of the European Year of Architectural Heritage, the importance of the concept of integrated conservation was emphasized and the necessity of a volumetric and dimensional approach (height, land use coefficient, etc.) was expressed [3, 4, 10, 11].

In the design of new buildings in the historical environment, it is necessary to investigate and interpret the historical sec-

tions and to establish the right relationships in terms of function, material and technology as well as in the façade scale. Certain conditions for the success of a design in the historic environment have been concretized by various researches. These conditions can be listed as establishing a connection with the history and geography of the design area, establishing a connection with transport axes, respecting important views and perspectives, respecting the scale of the historic environment, and the unity of new texture and urban appearance according to the requirements of the age. Old and new designs can be completely opposite or compatible in terms of features such as material selection, connection details and building system. What is important at this point is to ensure that the new constructions are separated from the historical building and gain a new identity (1,2,4,6). Although there are intertwined design techniques in some examples, it is seen that certain techniques are used when designing new buildings in the historical environment;

- 1) The same (copy-imitation)
- 2) Making harmonious
- 3) Do not replicate
- 4) Making neutral (Neutralization)
- 5) Interpretation
- 6) Opposite/Contrast union

2. Historic Building Sensitive Architectural Design Workshop

Aim And Program Of The Workshop

As an example of these concepts; the evaluation of physical assets in historical environments and the approach to building design according to historical environment criteria were examined in Istanbul Selimiye Neighbourhood as the 5th term autumn project of Yeni Yüzyıl University, Department of Architecture.

The main aim of the workshop was to remind the participating students of the criteria of design sensitive to the historical environment. With the study planned to be carried out in the neighbourhood of important historical buildings (See Figure 1) in Istanbul-Selimiye city centre, it is aimed to observe how the historical environment provides input to the new building design and how these inputs are reflected in the new design.

Since conservation practices should not be a mere restoration practice or similarly, new building designs in the historical environment should not be considered disconnected from the concept of conservation, answers to the questions of how the new building design in the historical area can be a part of the environment have been tried to be sought and it is aimed to share the final products.



Figure 1. Settlement area and its surroundings (Google Maps).

2.1. Workshop Program

Preparation

- 1) Identification of the Problem
- 2) Determination of the Study Area
- 3) Determination of Project Scope and Content

Phase 2

Awareness Identification Theoretical Infrastructure (Concept) Creation

- 1) Sensitivity of Participants
- 2) Recalling the Concept of Historical Environment and Conservation Consciousness
- 3) Student's Contextual Topic Research and Examination of Examples

Phase 3

Analysis-Synthesis-Concept

- 1) Analysis Phase
- 2) Synthesis Phase
- 3) Design Process

Phase 4 Finalization

- 1) Final products; delivery of projects
- 2) Discussion and sharing of results

The workshop consists of four stages with the participation of 10 students. In the first stage of the study, a design area in the city centre, which has construction and social problems and is related to the historical building, was determined. Selimiye Neighbourhood, which is the designated area, is a region with historical buildings nearby, where new designs have been added and has important social problems (See Figures 1-2-3-4). Within the scope of the studio, participants were expected to produce solutions with the awareness of both architectural and social problems [7, 9, 11, 12].

Historic	Environment	Data
(https://kulturenvanteri.com/tr/yer/haydar-pasa-gari-behic-be y-lojmanlari/#17.1/41.000313/29.024666)		



Figure 2. Behic Bey Lodgings.



Figure 3. Behic Bey Lodgings general overview

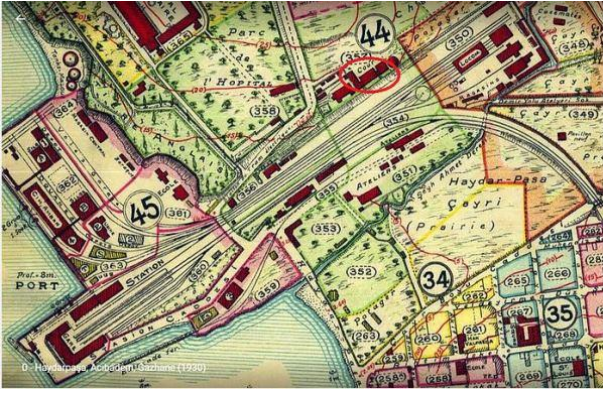


Figure 4. Location of the lodgings on Pervititch Map (<https://mimnap.org/yazi-yorum/behic-bey-yntaniye-lojmanlary-arif-atylgan/>).



Figure 5. Study area (Google Maps).

Recalling the concepts of historical environment, urban identity, new building design criteria in historical environment, adaptive reuse, spirit of place and cultural sustainability has been inevitable in the project process.

In addition, domestic and international examples were analyzed in the workshop environment and the problems encountered during the design phase were solved. In this process, both the visual and theoretical backgrounds of the studio participants regarding the relationship between the historical environment and the new building were strengthened.

In the third stage, students' determination, analysis and synthesis studies were focused on the design field, and the results were obtained on how to direct the design by synthesizing the data.

In the fourth stage of the workshop, the final products of the students were evaluated.

2.2. Analysis-Synthesis-Concept

The environmental analyses of the region have concluded

The study area was determined as the area where Haydarpaşa student dormitories are located (See Figures 1-5). As a design subject, the "Faculty of Architecture Campus" design was decided by questioning its relationship with the historical environment.

In the second stage of the study, the participants were asked to recall their knowledge and sensitivity about the historical environment with the information supported in the relevant courses.

that the intense traffic vitality of the Dr. Eyüp Aksoy axis should be qualified. The proximity of the land to the main transport axes has also helped to define new axes that can be directed to the surrounding historical texture. Thus, economic and social revitalization was also emphasized.

The location of the design area on the transport axis and the design subject contributed to the cultural increase of the existing mobility.

Within the scope of the workshop, analyses for the identification and solution of problems were included. Pedestrian and vehicle transportation, green space uses, existing texture and density, social texture analysis and natural environment analyses were examined by the studio participants.

Selimiye, which was determined as the study area, is a region where different user profiles such as military zone, immigration from abroad, immigrants with low economic income, dormitory area for students are gathered together.

Discussions were held on how these determinations could provide input to the design in the process of studio education, and evaluations were made on how spatial and social change could take place.

As a result of the analyses; the need for a design that will improve the quality of space in the environment, the need for social spaces and green areas in and around the building, and the potential to create positive commercial and social change with spatial changes were taken into consideration.

Participants were given the opportunity to define additional spaces, public spaces, green spaces, open and semi-open spaces that they thought would contribute to the solution of the problem, and flexible solutions were allowed.

According to the preliminary design results, preliminary and detailed evaluations were made in terms of mass relations, materials, and design language and space quality.

3. Results and Conclusion

For the "Faculty of Architecture Design" in the historical environment, which is the subject of the project, each student proposed a space / spaces according to the concept in addition to the basic spaces. The design area was thought to be at least 8000 m² and the design area did not exceed 10000 m². According to the general design approaches observed; units that fully spread on the land are generally located on the periphery of the land, and the central area is functionalized as public space, green area, social activity area, circulation area, etc. Although the entrance to the site is from various directions (pedestrian, service), the main entrance was considered from Dr Eyüp Aksoy Street (See Figures 5-6).

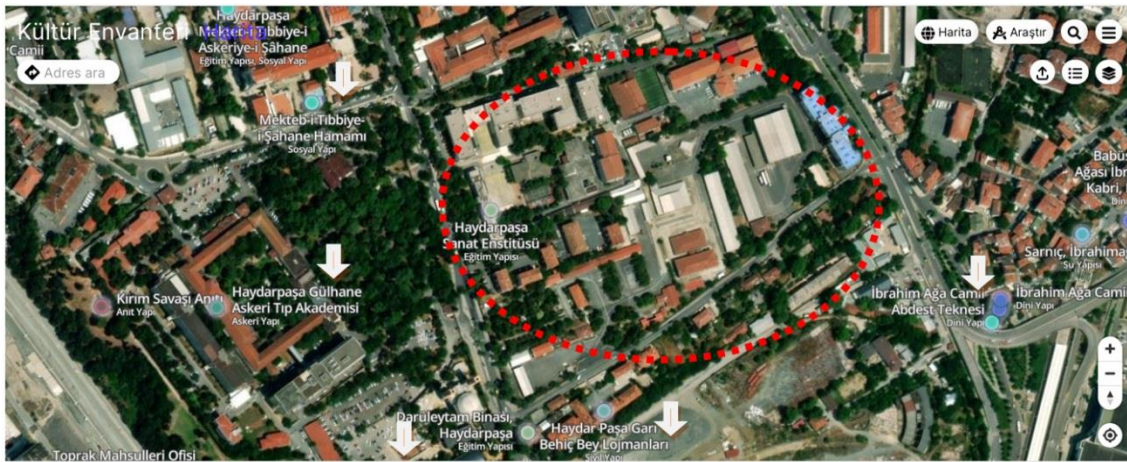


Figure 6. Study area and surrounding historical texture (Google Maps).

In addition to the predominantly educational function, educational areas (theoretical-experimental) that integrate with the public were also included in the design. This approach is among the right design approaches in terms of the acceptance and adoption of the new structure by the existing social structure. Depending on the function ("Faculty of Architecture"), experimental spaces, transformable spaces, and educational spaces that can respond to the variability of the number of participants and users have been prioritized in general design approaches. The education and training spaces are generally designed to be intertwined or directly accessible, while the upper management spaces are either on the main entrance axis as a prestige area or as specialized spaces on the land. The museum, conference hall, courses, café, bazaar, etc., which are included in the design as spaces open to the public / integrated with various age groups, are located in a way that can be perceived and experienced by users from all age groups.

Within the framework of the design decisions taken depending on the perception of the historical environment;

Although the participants were informed about the mass relations between the historical buildings and the new build-

ings, it was observed that the majority of the participants moved away from the historical buildings and established a remote connection with the historical building. As a sensitive approach to the historical environment, it is noteworthy that car parking solutions are located on the land or due to the potential of archaeological sites under the ground, either underground car parks are not designed or the parking area is limited. Again, in line with the approaches that take the historical environment as a reference, the construction that rises up to a maximum of 10m in floor heights, and a variety of neutral, contemporary, traditional and transparent materials are observed in the facade materials used. There is a completely transparent facade approach in full-empty definitions, as well as constructions created as reflective or repetition of a module. Selimiye Barracks, which is very close to the design area in terms of mass movements-mass ratios-mass relations, has generally been a reference in terms of mass organization, plan fiction and height values.

In line with the general approach, when all project solutions are analyzed, no architecturally ambitious, dominant and prominent building designs are perceived in the historical environment. It has been observed that the students (studio

design participants) are a little more hesitant, sensitive and hesitant in forming design criteria in the historical environment or around the buildings that need to be protected. Although it is a design approach in the education process and there is no implementation situation, it has been observed that various alternatives are tried, the student does not tend towards solutions where he/she can question his/her own knowledge and capability, and restricts himself/herself in project decisions.

These reasons constitute other topics and seminar subjects to be investigated.

Roughly, these topics consist of problems such as deficits in education - inadequacies - inability to reach the student - grade-based and controlling thinking approach of the student - focus on passing the course etc.

Student Design Approaches

The student group for the fall semester 2023-24 consists of 10 students. In this study, 5 student projects were included (Figures from 7 to 26).



Figure 7. Concept approach.



Figure 8. Ground floor plan.



Figure 9. 3D. Courtyard view.



Figure 10. 3D. Entry view.

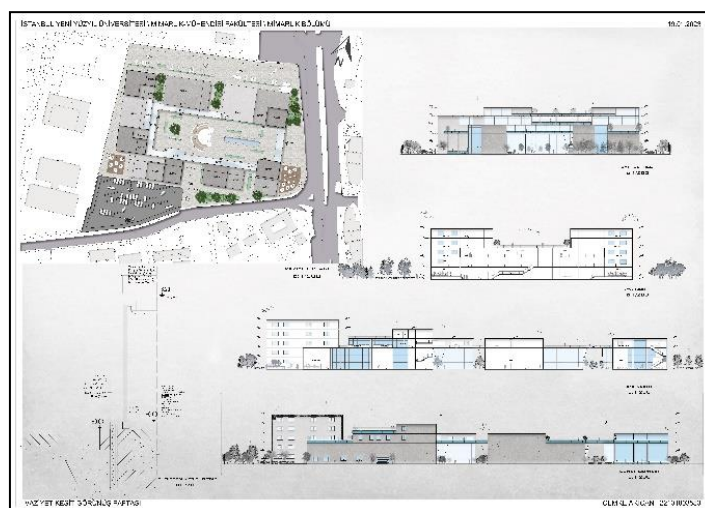


Figure 11. Design, Sections and facades.

CEMRE ARICAN /architecture student

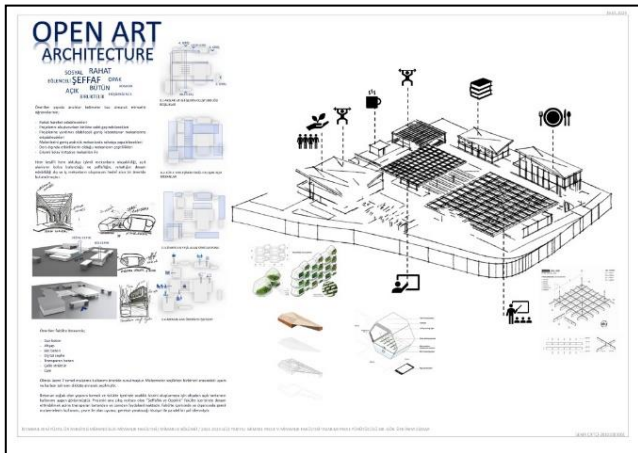


Figure 12. Design decisions.



Figure 13. General layout.



Figure 14. 3D Details.



Figure 15. 3D. Visuals.

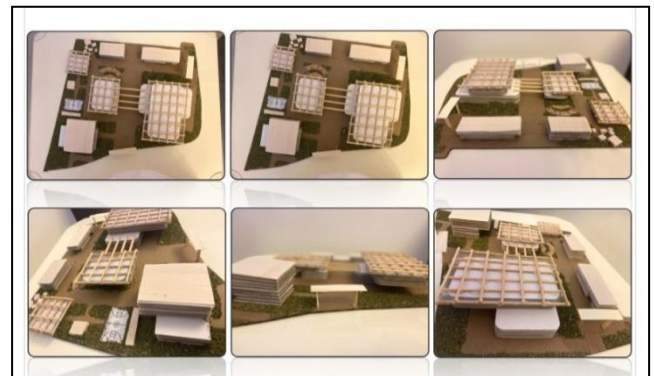


Figure 16. Settlement model.

SEMA ÇİFTÇİ /architecture student



Figure 17. Site plan.



Figure 18. Ground floor layout decisions.



Figure 19. Model.

MUHAMMET FATİH DEMİRCİ /architecture student



Figure 21. Site plan and neighborhood.

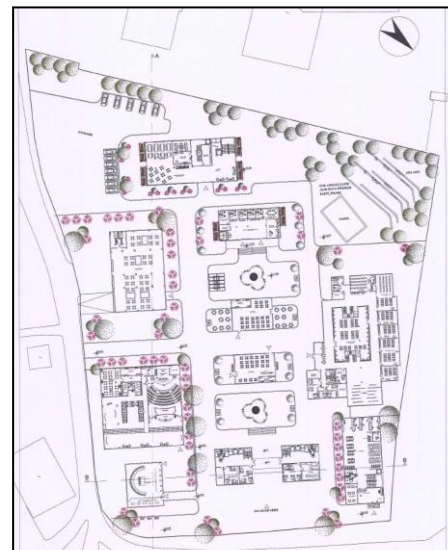


Figure 22. Plan solutions.

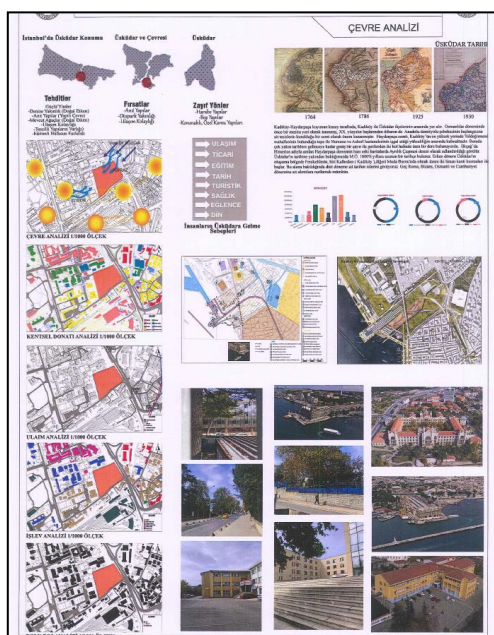


Figure 20. Planning decisions.



Figure 23. General layout visual expression.

HÜLYA ÖZ /architecture student

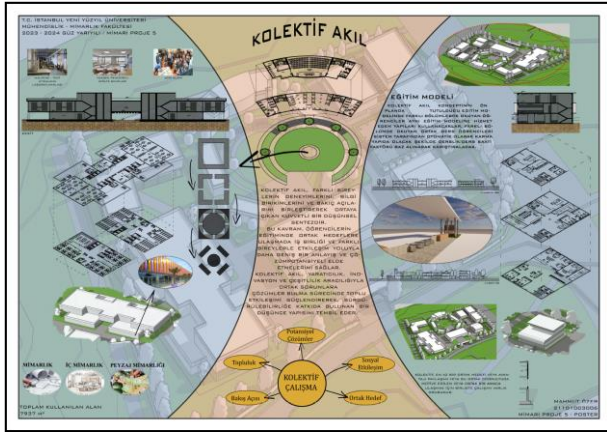


Figure 24. Architectural decisions.



Figure 25. Site plan, sections and visual expression.

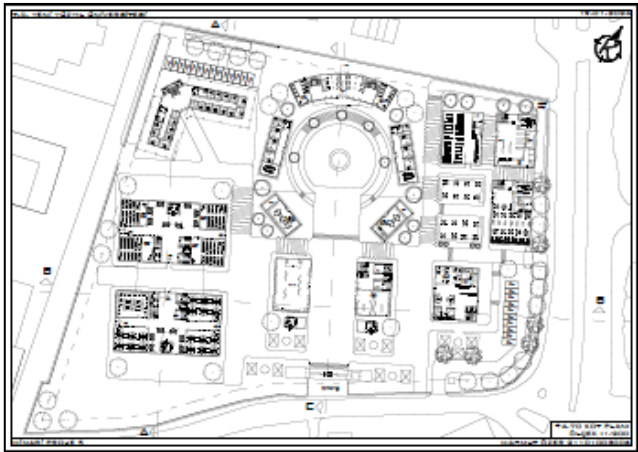


Figure 26. Land and mass solutions.

MAHMUT ÖZER /architecture student

Working Group

Safa Rıdha Abdulateef

Enes Akalın
Günsu Alpay
Cemre Arıcan
Sema Çiftçi
Muhammet Fatih Demirci
Emirhan Güdücü
Hülya Öz
Mahmut Özer
Arda Yazıcı

Author Contributions

Safiye Irem Dizdar is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

There is no conflict of interest in this study. This study has not been previously published.

References

- [1] Arabacıoğlu F. P.; Aydemir, I., "The Concept Of Revalorization In Historical Environments// Tarihi Çevrelerde Yeniden Değerlendirme Kavramı", Megaron, 2007.
- [2] Büyükmihçi, G, Akşehrioğlu, A., "Tarihi Çevrede Yeni Yapı Tasarımında Birleşim Biçimleri Bağlamında Modern Yaklaşımlar"[Modern Approaches in the Context of Combination Forms in New Building Design in Historical Environments], https://www.researchgate.net/publication/340226312_TARİHLI_CEVREDE_YENI_YAPI_TASARIMINDA_BIRLESIM_BICIMLERI_BAGLAMINDA_MODERN_YAKLASIMLAR
- [3] Büyükmihçi G.; Kılıç A., 'Tarihi Dokuda Yeni Yapı Uygulamaları; Yasal ve Eylemsel Sınırlar [Design Practice of New Building in Historical Environments; Legal and Operational Boundaries]', 9. Uluslararası Sinan Sempozyumu 21-22 Nisan 2015 Edirne, Conference Paper April 2013, <https://www.researchgate.net/publication/321377361>
- [4] Eneş, G.; Karabağ, N. E., "Tarihi Yapıda Çağdaş Müdahale; Yeniden İşlevlendirmede Tasarım Stratejisi Olarak "Ekleme"[Contemporary Intervention in Historical Building; "Addition as a Design Strategy in Re-Functioning], Tasarım Kuram 2023; 19(39): 351-370 [https://doi.org/10.59215/tasarimkuram.392/ARAŞTIRMA\(TEZ\)](https://doi.org/10.59215/tasarimkuram.392/ARAŞTIRMA(TEZ))
- [5] Erder, C.; Tarihi Çevre Bilinci [Historical Environmental Awareness], Orta Doğu Teknik Üniversitesi Mimarlık Fakültesi Yayını no.24, Ankara 1975.
- [6] Karakul, Ö."Kuram ve Uygulamada Tarihi Çevre Korumaya Bütüncül Bir Yaklaşım" [A Holistic Approach to Historic Environmental Protection in Theory and Practice], Social Sciences Research Journal, Volume 8, Issue 1, 61-78(March 2019), ISSN: 2147-5237.

- [7] Korumaz, M.; Özkaynak, M. “Tarihi Çevre/Yapı Duyarlı Stüdyo Eğitimi”[Historical Environment/Structure Sensitive Studio Education], 21. Yüzyılda Eğitim ve Toplum / Education And Society In The 21st Century, Cilt / Volume 8, Sayı / Issue 23, Summer / Yaz 2019, Sayfa/Page: 201-225.
- [8] Okumuş, G; Okumuş, G., “Tarihi Çevrede “modern bir han” [A modern inn in the historical environment]: Bursa hal ve çarşı binaları” BETONART 2021 ISSN: 1304-494X, s. 78-90.
- [9] Tan, B.; Arabacıoğlu, FP., -“©.” Megaron, 2020.
- [10] Venedik Tüzüğü [Venice Charter]. ICOMOS Türkiye. <http://www.icomos.org.tr>
- [11] Yavaşcan E. E, “Tarihi Çevrede Tasarım: Yeni yapı ve yeniden işlevlendirme üzerine atölye eğitimi”[Architectural Design in Historical Environment: Istanbul Renewal Areas], - Modular Journal, 2021 - dergipark.org.tr
- [12] Zeren, M. T.; Tarihi Çevrede Yeni Ek ve Yeni Yapı Olgusu, Yalın Yayıncılık, İstanbul 2010, ISBN: 978-9944-313-73-3.