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Araştırma Makalesi

Interior Conceptual Suggestions for Re-functioned Industrial Heritage Buildings

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Abstract

Cultural architectural heritage is an important urban focus that forms the core of the historical environment and houses the historical buildings of ancient settlements. The developments in technology that the Industrial Revolution brought about in the 18th century increased rapidly until the beginning of the 20th century as it took the whole world under its influence, the production with human power was transferred to machines, and the factories were started to be built.

Industry is a production technique phenomenon. Due to its historical and social nature, industrial buildings, which are among the historical buildings, are an important architectural heritage that includes the historical, technological, social, architectural, and scientific values of the industrial culture of the period. With the expansion of cultural heritage, the concept of "industrial heritage" emerged. Modern conservation approach gains importance today in the protection and re-evaluation of industrial heritage. In conservation studies, it is important not only to conserve the building structure, but also to conserve it with the traces of the production technique that forms its identity. However, today, in our country, which entered the industrialization process long after the West, the necessary importance and attention, is not paid to the industrial structures. With the change in the social and economic conditions of the time, industrial structures with historical value, most of which lost their function, became unusable by abandoning or destroying.

The aim of this study is to determine the social, architectural, and usage characteristics of the industrial buildings established in different periods of history in Anatolia, to perform their typological determinations and structural analyzes and to examine their effects on the city view. Building conservation and evaluation is about raising awareness of new uses and methods, industrial heritage conservation and their re-functioning and covers the process of making new/contemporary interior design. In the context of re-evaluation, original design works that do not harm historical identity and are designed to be recycled to restore urban memory and identity were examined within the scope of the course "Industrial Heritage and Conservation" by selecting five examples in the text with Hasan Kalyoncu University Architecture-Interior Architecture Department's students in the semesters of 2020-2022. One example was completely destroyed and does not exist at present.

In the study it was aimed to research and document the past and current information for the re-functioning of industrial heritage buildings in the field of design or for idle industrial heritage buildings; to strengthen design awareness; to contribute to the emergence of holistic knowledge and processes in a transparent way by developing educational models and project studies through efficient methods thanks to conscious and responsible individuals.

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Keywords: Industrial Heritage, Conservation, Architectural Continuity, Re-Functioning Design Criteria, Contemporary Approaches

Yeniden İşlevlendirilen Endüstri Mirası Yapılar için İç Mekân Kavramsal Önerileri

Özet

Kültürel mimari miras, tarihsel çevrenin çekirdeğini oluşturan ve eski yerleşmelerin tarihi yapılarını barındıran önemli kentsel odaktır. 18. yüzyılda Endüstri Devrimi ile teknolojideki gelişmeler, 20. yüzyılın başlarına kadar tüm dünyayı etkisi altına alması, insan gücüyle olan üretimin makinelere geçmesi, fabrikaların yapılmaya başlanmasıyla hızlı bir biçimde artmıştır.

Endüstri, bir üretim tekniği olgusu tarihsel ve toplumsal olması nedeniyle; tarihî yapılar arasında yer alan endüstri yapıları, dönemin sanayi kültürünün tarihsel, teknolojik, sosyal, mimari ve bilimsel değerlerini içeren önemli mimari miras konumundadır. Kültürel mirasın genişlemesiyle "endüstriyel miras" kavramı ortaya çıkmıştır. Günümüzde endüstri mirasının korunması ve yeniden değerlendirilmesinde modern koruma anlayışı ağırlık kazanmaktadır. Koruma çalışmalarında, sadece, yapı kabuğunun korunması değil, kimliğini oluşturan üretim tekniğinin izleri ile korunması önemlidir. Ancak, günümüzde, batıdan çok sonra endüstrileşme sürecine giren ülkemizde, endüstri yapılarına gereken önem ve özen gösterilmemiştir. Zamanın toplumsal ve ekonomik şartlarının değişmesi ile çoğunluğu işlevini yitiren tarihi değer kazanan endüstri yapıları terk ya da yok edilerek kullanılamaz duruma gelmiştir.

Bu çalışmanın amacı, Anadolu'da bulunan, tarihin farklı dönemlerinde kurulmuş olan endüstri yapılarının sosyal, mimari ve kullanım özelliklerinin saptanması, tipolojik tespitleri, yapısal analizleri ve kent görünümüne etkilerinin incelenmesidir. Yapı koruma ve değerlendirme de yeni kullanım ve yöntem belirleme, endüstri mirası koruma ve yeniden işlevlendirilmesi konularındaki bilinci geliştirmek olup yeni/çağdaş iç mekân tasarımı yapma sürecini kapsamaktadır. Yeniden değerlendirme bağlamında; kentsel bellek ve kimliğin geri kazandırılması amacıyla tarihi kimliğine zarar vermeyen ve geri döndürülebilecek biçimde tasarlanan özgün tasarım çalışmaları; Hasan Kalyoncu Üniversitesi Mimarlık-İç Mimarlık Bölümü Öğrencileri ile 2020-2022 yılı dönemlerinde "Endüstriyel Miras ve Koruma" dersi kapsamında metin içinde beş örnek seçilerek incelenmiş olup bir örnek ise tamamen yıkılmış olup şu an yerinde mevcut değildir.

Yapılan çalışmada; endüstri mirası yapıların, tasarım alanında, yeniden işlevlendirilerek ya da atıl kalmış endüstri mirası yapıları için de geçmiş ve güncel bilgilerin araştırılıp, belgelenmesi ve tasarım farkındalığının güçlendirilmesi ve eğitim modelleri, proje çalışmaları geliştirerek, verimli yöntemlerle bilinçli, sorumlu bireylerle bütüncül bilginin ve süreçlerin şeffaf bir biçimde ortaya çıkmasına katkı sağlamak hedeflenmiştir.

Anahtar Kelimeler: Endüstriyel Miras, Koruma, Mimari Süreklilik, Yeniden İşlevlendirme Tasarım Kriterleri, Çağdaş Yaklaşımlar

Introduction

Historical environments took shape as a result of the physical, social, cultural, economic and technological conditions of the periods when they were built. Therefore, the main purpose of preserving historical environments is to protect, develop and sustain this set of values that make up them. In the process of transferring our historical and cultural assets to the future, sometimes their original functions are changed, and they are adapted to today's life and usage conditions. In this context, historical textures or structures go through a transformation process. It is important to protect and repair historical buildings as they are, with the least intervention, and to make them habitable environments for the people of the age.

Industrial heritage, on the other hand, can be defined as the evaluation of the culture produced by the industrial society as a heritage and its participation in the life of the society by preserving its characteristics and establishing a connection from the past to the future. Although the term industrial heritage gives the impression that it is about what was introduced in the industrial age, due to its emphasis on the concept of industry, it actually covers a wide area including the production-manufacturing, architecture and equipment of the pre-industrial period (Tanyeli, 1998, p. 92).

Integration of the idea of protecting the industrial heritage with new designs is important for the conservation culture and its benefit to urban culture contributes to the examples of different approaches in achieving successful results by preserving the local identity and producing versatile solutions for architecture, urbanism, conservation, and memory, interior space in terms of urban and public aspects.

Industrial buildings, which are among the historical buildings, are an important architectural heritage that includes the historical, technological, social, architectural, and scientific values of the industrial culture of the period. Due to their functions, industrial buildings are high-cost structures with large spaces and are located in or around city centers.

Re-functioning the existing shell without destruction emerges as an alternative building production technique with its aspects such as economy, public memory, energy management and the ability of registered buildings with historical characteristics to finance them (Büyükaslan and Güney, 2013, p. 34).

In this article, the history and condition of the industrial heritage buildings that need to be preserved, the archive documents in the relevant institutions, maps, engravings, photographs, possible restoration projects, etc., were researched with a selected presentation topic in the content of student design studies. As a result of the analysis of these examined sources, some transformation and functionalization suggestions were made on the use of the buildings.

Developing critical thinking in order to protect and re-function industrial heritage was discussed. It was tried to contribute to the preparation of restitution and restoration projects of historical industrial heritage buildings and to the reconceptual design of the building to renew and change its function, with the necessary principles for theoretical and practical purposes, providing information about international decisions, and developable and transferable models in which sustainable methods are carried out.

1. The Concept of Re-Functioning

The concept of "re-functioning" is a method that should be used much more today in terms of evaluating the structural features of places, transferring the lifestyle that shapes places to the future, maintaining the public memory, energy use and ecological benefits (Selçuk, 2006, p. 150).

Re-functioning also makes an important contribution to sustainability by helping to extend the life of buildings, reduce material, transportation and energy consumption and pollution (Bullen and Love, 2011, p. 412).

Regarding the "adaptation to the new function" stated in the fifth article of the application principles in the Traditional Architectural Heritage Burra Regulation, ICOMOS 1999 stated that *"In adapting traditional buildings to new functions and re-using them, their integrity, character, and form must be respected while they are transformed to an acceptable standard of living. If traditional architectural forms are still used, interventions can be made within the framework of ethical rules acceptable to the society"* (ICOMOS, 1999, p. 2).

To preserve history and works of art by giving due importance to them, by keeping them alive and to give them new dimensions within contemporary functions. To be able to take the people of our age or future generations to the past from time to time… To make them experience the mysterious beauties of the past. Thus, while protecting our cultural assets, we need to reflect interesting, instructive, and thought-provoking sections from the past to our people (Altınoluk, 1998, p. 17).

1.1. Factors Requiring Re-Functioning

In re-functioning, preserving artistic and symbolic values of buildings, as well as their physical texture and preserving their cultural positions have an important place in the collective memory or history of humanity or society. Historical buildings, which have traces of cultural heritage, are accepted as important works providing information about the architecture, culture, art, tradition and customs, lifestyle of a society. However, with the urbanization and the increase in population today, it is seen that many historical buildings are damaged and are in danger of being completely destroyed. That's why, re-functioning historical buildings, in other words reviving them, is a necessity in terms of protecting cultural heritage in cultural, economic, and social sense and sustainability (Kurak Açıcı and Konakoğlu, 2019, p. 216). There are some factors that should be considered when determining the new function of a historical building. The reasons that require a re-functioning process can be evaluated as historical-cultural, economic, and environmental reasons.

Historical and cultural factors include adopting the building style in the city. They are about the history of the city and the experience in the relationship with the individual. They are social memory. In this case, the temporal situation in architecture shifts towards memory instead of history and psychological time is formed. Then, the structure is more than a single form and has a place in its relation to its location, social memory, and personal experiences of the individual. In the light of all this, it can be said that re-functional architectural heritage structures are in the memory area instead of places. Cultural heritage is actually defined by social memory and provides the cultural continuity of societies (Eisenman, 2006).

Economic factors are a much-debated issue in re-functioning, and they provide benefits in new use (Ahmeti, 2018, p. 32). The first benefit is to take advantage of existing materials, structures and infrastructure that contribute to lowering the overall cost of the project. The second benefit is that by introducing green maintenance, it saves energy in the long run, including the building's maintenance cost. The third benefit is to contribute to the local community by providing jobs for construction and further maintenance. The fourth benefit is regional, attracting tourism in the region (Bull and Love, 2011, p. 413). In general, most new projects are time-consuming, but re-functioning is a less time-consuming program that saves the cost of the project (Garstka, 2010, p. 87).

Environmental factors, on the other hand, are the careful investigation of the functional relations of the building with the environment and the spatial characteristics of the building, while giving a new function to a building that has lost its function. They determine the alternatives about which function will be converted by considering the factors in the selection of appropriate functions in buildings with their surroundings (Kuban, 2000). The concept of “adaptive reuse” will gain even more importance when it is evaluated together with the new design approach as a method that should also be applied for transformation and functionalization practices on the use of industrial structures.

1.2. Re-Functioning of Industrial Heritage Buildings

Today, there are many industrial structures surrounded by buildings and lost their functions in city centers. It is important to protect and sustain these industrial structures, which are inactive in our cities, to keep the urban memory and identity alive and to carry technical information to the future. With re-functioning, the prerequisite for the semantic integration of the industrial structure with the sustainable city will be determined.

The evaluation process for industrial heritage buildings, which will be transformed in the re-functioning process, is seen as a new design method on an economic, contextual, and architectural basis (Büyükarslan and Güney, 2013, p. 36). Accordingly, the criteria were determined:

a. Architectural Transformation Evaluation Criteria
    - Spatial
    - Functional
    - Operational
    - Structural
b. Contextual Transformation Evaluation Criteria
c. Structure-Place Relationship Evaluation Criteria
d. Economic Evaluation Criteria

Architectural transformation evaluation criteria are the main consideration before the implementation phase of structures worthy of re-functioning and to examine the architectural character of the buildings. All these features contain data that can be entered into the new design. They show in which direction the design can move forward. In order to integrate the new function, possible spatial interventions should be performed after this process (Kuban, 2000).

The spatial transformation evaluation criterion reveals the transformation possibilities of the place. The existing spatial arrangement of the building and the suitability of the new function for this area are among the basic criteria in the evaluation of the re-functioning.

In order for the transformation to be successful, it is an important point in reflecting the character of the place to the present day that the spatial order to be shaped in accordance with the function should be parallel to the existing volumetric and structural order of the building (Selçuk, 2006, p. 30).

The functional transformation evaluation criterion broadly evaluates the social life processor and the use of the architectural structure and how it can meet the needs. With the newly given function, the building is put into service again in daily life. This building must be open to the original intervention of the architects. However, in such a design, the freedom of the architect is limited to the data left over from the old building. The architect must use his creative freedom within these limits (Kuban, 2000).

The operational transformation evaluation criterion should serve to match the new operation with context and spatial possibilities. In the buildings that emerged with the functionalist architectural attitude that emerged in the history of architecture at the beginning of the 20th century, it is aimed to glorify the architectural language that comes from the functional requirements of architectural attitudes that come from historical attitudes. Re-functioning means a kind of re-designing. However, in functional transformations to be made to historical buildings, the building should be able to adopt the function to be given and its original plan scheme and spatial features should not be subjected to major changes. While a registered building with historical value is being re-functioned or an ordinary building is being re-functioned, it is necessary to sustain the existing places and reveal its philosophy (Mesutoğlu, 1995, p. 68).

The structural evaluation criterion is related to the correct reading of the structural schema of the re-functionalized structures. In historical buildings, structural deterioration, decay, and aging of materials occur over time. During the re-functioning process, it may be necessary to repair the damage to the structures and, if necessary, to make additional structural interventions in accordance with the new function. In the case of a division of an integrated space resulting from a new function or the creation of a mezzanine, care must be taken that the interventions do not permanently deform the original state of the building with respect to its identity characteristics. Preparing a detachable project such as stairs, entrance, porch, eaves, partition without damaging the old structure (this may require an independent structure) allows a transformation without damaging the original structure. Such interventions facilitate the possibility of the structure returning to its original state under other future conditions (Kuban, 2000).

In the contextual transformation evaluation criterion, which is one of the other evaluation processes, the transformation decisions about historical buildings must be made in the urban dimension before they are reduced to the single building dimension. Therefore, the contextual situation of each historical building to be transformed is geographically and sociologically unique (Mesutoğlu, 1995, p. 69).

When it comes to the structure-place relationship evaluation criterion, while t the trace of the form of the building in the city is the history of the city, the experience in the relationship with the individual is the social memory (Eisenman, 2006). Thus, the structure is more than a single form and has a place in its relation to its location, social memory, and personal experiences of the individual. In the light of all this, it is possible to claim that re-functional architectural heritage structures are in the memory area instead of places. Cultural heritage is actually defined by social memory and provides the cultural continuity of societies (Büyükarslan and Güney, 2013, p. 46).

In the economic evaluation criterion, it is possible to state that a building re-functionalized by the evaluation of the existing building stock, rather than the construction of a new building, brings sensitivity to cultural and historical textures, as well as an economic recovery. In a building constructed in this way, by avoiding the cost and waste of resources to be spent in the demolition and construction process, not only energy and labor are saved, but also natural resources are used more effectively. Designing existing structures in line with the current needs became an economic and ecological necessity. The increase in land prices and the need for interventions that require large expenditures for new constructions also support this necessity (Büyükarslan and Güney, 2013, p. 39).

Therefore, there is a need to maintain a planning process within the scope of programming, design, application and use phases while creating a function chart for existing old buildings as well as for new buildings. As a result of the function given to the old building, the new interior furnishings of the building should be timely, except for special buildings. The fact of making all the study of the region by developing a model, creating a schema, and making the building a part of daily life by keeping it alive in this way will bring along the result of a cultural continuity. From this point of departure, the accumulation of documentation on this subject, the experiences to be gained in the design and implementation stages will be able to turn our country, full of original examples, into an “education-teaching town” on a universal scale (Altınoluk, 1998, p. 137).

2. Design Proposals for Re-Functioned Industrial Buildings within the Scope of Sustainability

2.1. Bomonti Beer Factory, Şişli, Istanbul

Bomonti Beer Factory was established in the district of Şişli, Istanbul within the scope of the industrialization process of the Ottoman Empire in the 19th century, with the private enterprise of the Swiss Bomonti family, in the early 1890s and is located in Cumhuriyet Mahallesi **(Figure 1, 2)** (Tanyeli and İkiz, 2009, p. 109). Bomonti Beer Factory, which gave its name to the district in which it is located, was formed by adding different building blocks to each other. The buildings in the complex spread out over the whole island and draw the outer borders, and the facades on the street give the appearance of adjoining structures **(Figure 3, 4)** (Tanyeli and İkiz, 2009, p. 112).

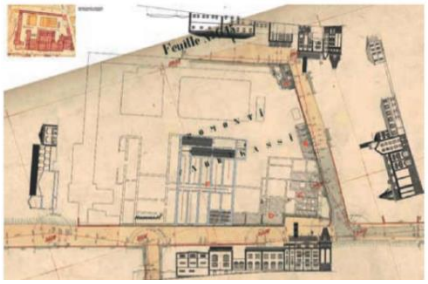

Figure 1. Bomonti Beer Factory, Restitution, Layout Plan (URL-1)

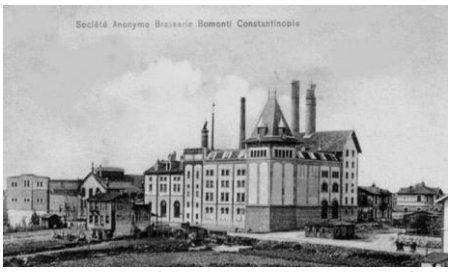

Figure 2. Bomonti Beer Factory, 1890 (URL-2)

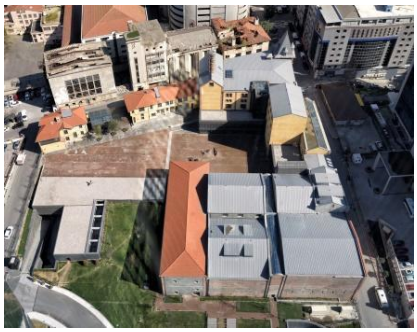

Figure 3. Bomonti Beer Factory Aerial Photograph (Şişli Municipality Archives)

Figure 4. Bomonti Beer Factory Before Restoration (Şişli Municipality Archives)

It is seen that the group consisting of A-B-C-D and F blocks today, constituted the main core of the structures and production activity of the factory complex between 1893-1924 and these sections served until the 1940s, the next major extension period.

The last period of the historical development of the Bomonti Beer Factory was between 1965 and 1994, the closing date of the factory. During this period, many unqualified buildings with reinforced concrete structures were added to the building block (Figure 5) and almost the entire area was filled (Tanyeli, İkiz, 2009, p. 113-115).

According to the results of a visitor survey conducted at the Bomonti Beer Factory, it was concluded that the social dimension of the re-functioning transformation remained weak. The participatory structure in which direct communication with the public comes to the fore, one of today's social sustainability criteria, was not observed in Bomonti campus during and after the transformation. Although most of the elements that make up the identity of the factory survive today, they are not adequately promoted. The concept of public space, which we encountered in the past with Bomonti Beer Gardens, is now manifesting itself as Bomonti campus **(Figure 5)** (Durna, 2019, p. 108).

Figure 5. Bomonti Beer Factory Before and After Restoration (URL-2)

In the process of re-functioning of Bomonti, together with the critical view made with the concepts of conservation; the building should be considered not only in its own right, but also together with the urban texture it is in (Durna, 2019, p. 108). In particular, the fact that the building was included in this transformation and change without being demolished or destroyed gives a positive result, while the fact that the social memory of the people living there has changed so much and the place has turned into an area where people experience a very different lifestyles today can be evaluated negatively (Sevim, 2021). When the user profile is examined, the settlement, which can be basically classified as a social area serving the public, functions as a socialization space for the upper income class who settled in the region after the urban transformation. This situation reveals the importance of making the public have a voice in the transformation of such historical structures, which we can call memory places. The lack of an experience workshop in the building, which is Turkey's first beer factory, where processes related to beer production are conveyed; the fact that the past is exhibited only as an architectural structure and is functionally completely separated from this past creates a great contradiction (Durna, 2019, p. 108).

In this context, with its conceptual suggestion, a design approach was developed that emulates Bomonti Beer Gardens in the past, where people came together with the social sustainability criteria of usage transformations and landscape design proposal **(Figure 6).**

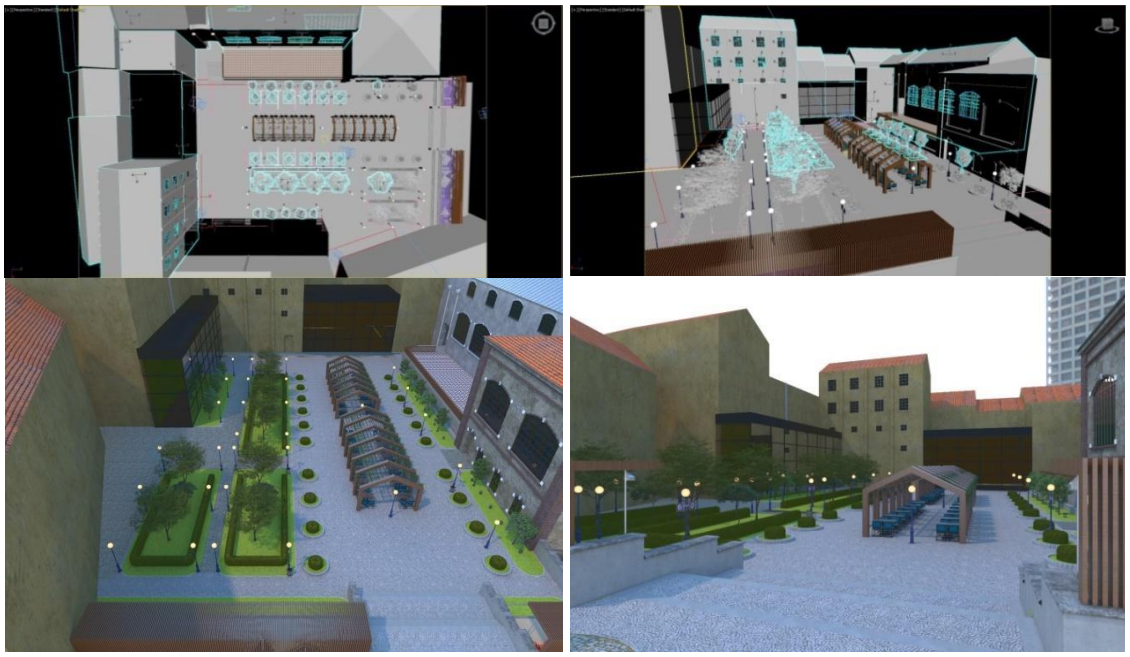

Figure 6. Bomonti Beer Factory, Bomonti Beer Gardens Design Proposal
(Aliye TURNALAR HKU Department of Interior Architecture Graduate Student)

2.2. Kasımpaşa Salt Warehouse, Beyoğlu, Istanbul

Kasımpaşa Salt Warehouse is located in the south of Kalyoncular Barracks in Istanbul, east of Kasımpaşa Pier, on the same building block as the flour and grain warehouse that has existed since the 18th century and is located in the area between Havuzbaşı Değirmeni Sokak and Anbar Arkası Sokak **(Figure 7)** (Büyükaslan and Güney, 2013, p. 54). It was built in Kasımpaşa district and was arranged to fulfill the function of a warehouse with its spatial setup and positioning. The Salt Warehouse is not a single structure, but one of the warehouse, hangar, sales units, and warehouse structures built to serve Kasımpaşa Flour Mill built in the 19th century **(Figure 8)**. Although the first architect of the building is unknown, it was built on the same date as Kasımpaşa Flour Mill. While the Salt Warehouse, which is registered as a 2nd Class Historical Monument and within the scope of Industrial Heritage, was previously owned by Monopoly, a transformation project was prepared by Erginoğlu & Çalışlar Mimarlık in 2008, after a period of dysfunction (Büyükaslan and Güney, 2013, p. 48).

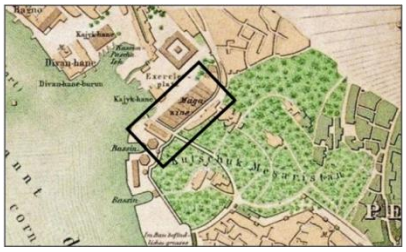

Figure 7. Location of the Salt Warehouse on the Stolpe Map (1855-1863) (Istanbul Archeology Museum Library Archive)

Figure 8. Location of the Salt Warehouse on the Pervititch Insurance Map (1925-26) (Pervititch, 2000)

Considering the current state of the building and its connection with the Golden Horn on the date of its construction, it is observed that it is at a point close to sea

transportation. Considering the current density of the district of Kasımpaşa and the changing environment of the Golden Horn due to its social needs over time, it is seen that the transformation of the building has the power to affect the environment as well **(Figure 9)** (Büyükaslan and Güney, 2013, p. 55).

Figure 9. Kasımpaşa Salt Warehouse Aerial Photograph (URL-3)

In the architectural examination of the building, it was observed that it was designed functionally in the direction that it can fulfill the warehouse function, which is the purpose of its construction, and has a simple architecture **(Figure 10).** In its spatial arrangement, there are four separate galleries. Eight separate warehouse sections are connected by three corridors. The four warehouses in the middle of the building are separated from the warehouses on the sides by a corridor. The courtyard at the back is the only breathing space in the building **(Figure 11)** (Büyükaslan and Güney, 2013, p. 49-50).

Figure 10. Kasımpaşa Salt Warehouse before Restoration (URL-4)

Figure 11. Kasımpaşa Salt Warehouse Ground Floor Plan and Section (URL-5)

In the post-transformation plans, it is observed that there is no change in the spatial, volumetric, and structural setup. By preserving the original layout of the building, the places were designed to preserve the original texture with constructive additions made with steel and glass materials. In line with the requirement of the new function, space was gained with mezzanines **(Figure 12)** (Büyükaslan and Güney, 2013, p. 50).

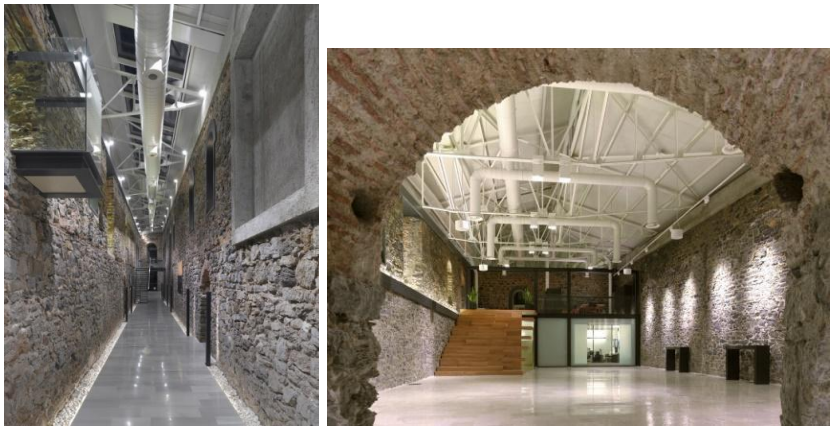

Figure 12. Kasımpaşa Salt Warehouse Interior Entrance Hall and Mezzanine after Restoration (URL-5)

Thus, the structure is updated over time in line with functional needs and its sustainability is ensured. With this new structural formation, which was established independently of the building, excessive load on the historical building was prevented and a new self-supporting inner shell was formed in the interior.

In this context, with its new conceptual proposal, an additional proposal was developed that emulates the “greening past, long lasting history” design approach. By providing guidance and information on the ground, explanations were provided about the visuals. The interior of the arches is illuminated with the idea of “let the future shine a light on the past”. Since glass was the most used material during the renovation period, Salt was exhibited in the glass area in order not to disturb the integrity and to ensure continuity. The motto of the greening past comes from here. Since it was desired to make an additional proposal in the exhibition area to bring the old and the new together, on opposite walls, while on the right wall, the future, that is, its re-functionalized state, was exhibited, on the left wall, the past, that is, its unfunctionalized state was exhibited. The past and the future were blended by exhibiting the salts produced at that time in the glass areas. On the left wall, the stone, which was used in its unfunctional state in the past, was used. The reason for using the vault arch on the exhibition areas is to bring the past and the future together in the same figure **(Figure 13).**

Figure 13. Kasımpaşa Salt Warehouse, Design Conceptual Proposal “the meeting of the old and the new”
(Şeyma BAYAR HKÜ Department of Interior Architecture Graduate Student)

2.3. Abamor Ice Factory (Ice Inn), City Center, Şanlıurfa

Although the exact date of construction of Abamor Ice Factory in Şanlıurfa is not known, it is estimated to be about 150 years old and served as an ice factory for 50 years. Abamor Ice Factory, one of the most unique structures of Şanlıurfa, is recorded as the first ice factory established in Balıklıgöl Akar başı 1249. Sokak, no:19 Eyyübiye. The business continued eveThe business continued even after the owner of the factory, Emin Abamor, passed away **(Figure 14, 15)** (URL-6).

Figure 14. Abamor Ice Factory Location (URL-7)

Figure 15. Abamor Ice Factory after Restoration (Betül BEYAZ HKU Department of Interior Architecture Graduate Student)

It is said that in Şanlıurfa, where heavy snowfall was experienced before the ice was made, the snow was pressed and stored in molds in the cisterns in the mountains where the people stockpiled snow, and then it was cut into molds and sold little by little in the city. When the need for ice was realized, an ice factory was established by the

wealthy, and especially technicians and engineers were brought from outside. One side of this historical building, where wine was produced by Armenians in the past, was also used as a flour mill **(Figure 16)** (URL-6).

Figure 16. Abamor Ice Factory Ice Production and Flour Mill (Betül BEYAZ HKU Department of Interior Architecture Graduate Student)

With the data obtained as a result of the building analysis studies we conducted, it was determined that there is no survey, documentation studies and any work to be recorded. The archive information of the building could not be reached.

To talk about the current state of the building, the building suffered great damage after the fire in 2018 and became idle. The building was not suitable for its original function and was re-functionalized by an entrepreneur **(Figure 17).** For the purpose of promoting Şanlıurfa's culinary culture and dishes, the building was converted into a restaurant where the sira night culture, which has existed for centuries. In the Ice Inn business, there are stones called nahit stones on the walls that was not interfered with the mass structure much. However, there were interventions in the interior, ceiling, column, wall, and floor that were not in line with the restoration theory **(Figure 18).** Its ceiling was closed, and wooden cladding was added to the columns, thus losing its originality. There are also oriental rooms in the building.

Figure 17. Abamor Ice Factory Pre-Restoration Gate and Ice Inn Post Restoration Gate (Betül BEYAZ HKU Department of Interior Architecture Graduate Student)

Figure 18. Abamor Ice Factory Pre-Restoration Ceiling and Ice Inn Post Restoration Ceiling (Betül BEYAZ HKU Department of Interior Architecture Graduate Student)

Natural lighting could have been used more in the building. The effect of color on interior design was examined and it was seen that there was no harmony and integrity. In the interior, confusion has arisen by using different forms, transitions, materials with too many objects. Many old materials such as lighting elements, old radios, televisions, books, bicycles, clocks, sewing machines and musical instruments were used as décor. Although Historical Ice Inn is suitable for today's conditions, it has not been re-functioned in accordance with the theory of interior preservation.

Therefore, the re-functioning of Historical Ice Factory prevented the transfer of data on the industrial spatiality, building technology and mass aesthetics of the period to future generations as a whole.

Historical Ice Factory's immediate surrounding and context is as important as the factory itself, which was inherited by us. The identity integrity of the surroundings of the historical building should also be preserved. The inn is in a central location, in a busy area of Urfa, and is easily accessible. By determining the density of the vehicle and pedestrian axis, it should be aimed to direct the visitors to the inn through the most suitable way. The landscaping of the historical building should be restored, and the shops that were built later, which disrupt the historical integrity in its immediate vicinity, should be removed.

In this context, although the Ice Inn lost its functionality, it was transformed into a restaurant and museum in accordance with its originality, in the name of social sustainability **(Figure 19).** It was re-functionalized by turning it into a technical museum where the guests can spend time with pleasure, some for the purpose of a restaurant where culinary culture is presented, and some for the purpose of visiting the open-air museum, where they can learn the historical process of the places of the old ice factory and where technical tools and machinery equipment will be exhibited.

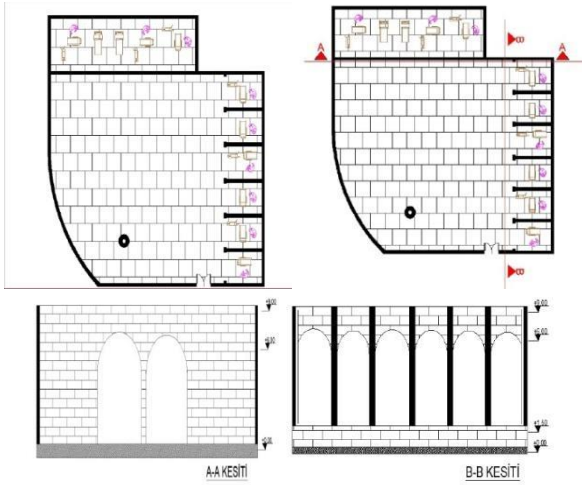

Figure 19. Ice Inn Plans and Sections (Measured Drawing: Beyaz, 2021)
(Betül BEYAZ HKU Department of Interior Architecture Graduate Student)

In this context, with its conceptual proposal, based on the concept of ice, the change of ice is reflected in an expressive figure, and by using the water element around the restaurant sections, the spaciousness of the exhibition areas and the emergence of design decisions are provided. In the transformation of the factory into a restaurant and a museum, it is aimed to provide service by analyzing semi-closed and semi-open

spaces. For adverse weather conditions indoors, the ceiling material was decided as glass, and natural lighting is benefited. At the same time, wet areas were proposed by analyzing the mezzanine floor. There are also sculptures of ice factory workers made of wax **(Figure 20).**

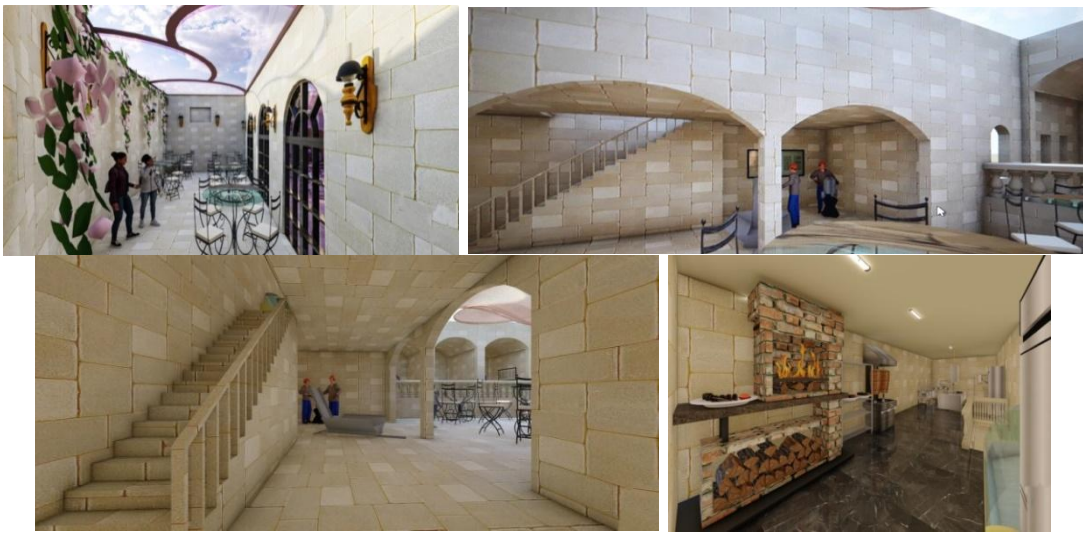

Figure 20. Abamor Ice Factory, Design Proposal for Conversion into a Restaurant and Museum
(Betül BEYAZ HKU Department of Interior Architecture Graduate Student)

In this study, in which the transformation of water from ice against the negative effects of the sun in the open area is conceptualized, by using organic forms from water in the design, it was tried to establish a connection between the column in the courtyard area and the exhibition sections. There are collapsible umbrellas in which water patterns are created with the concepts of change of ice **(Figure 21).** In the exhibition areas, a glossy floor was used in epoxy to increase the sense of spaciousness that comes from the concept. A relationship was established based on the differences in the dimensions of the places and the differences between the dimensions of the exhibition areas. It was aimed to create a natural and calm environment with the materials used, plants and colors by keeping the number of table and chair accessories to a minimum in the courtyard, creating a boutique atmosphere.

Figure 21. Ice Factory, Courtyard Design Proposal for Conversion into a Restaurant and Museum
(Betül BEYAZ HKU Department of Interior Architecture Graduate Student)

2.4. Cumhuriyet Flour and Gin Factory, Seyhan, Adana

Cumhuriyet Flour Factory was established in Adana in 1920-1922 in Seyhan district. Adana's second flour factory is located on the Karataş road. In the first years of the Republic, it played an important role in meeting the flour needs of the region. The construction of Cumhuriyet Flour Factory was started by the Germans in 1920 and was

completed in 1922. Later, in 1937-1938, the gin part was added as needed **(Figure 22)** (Tülücü, 2007, p.185).

Figure 22. Cumhuriyet Flour and Gin Factory (URL-8)

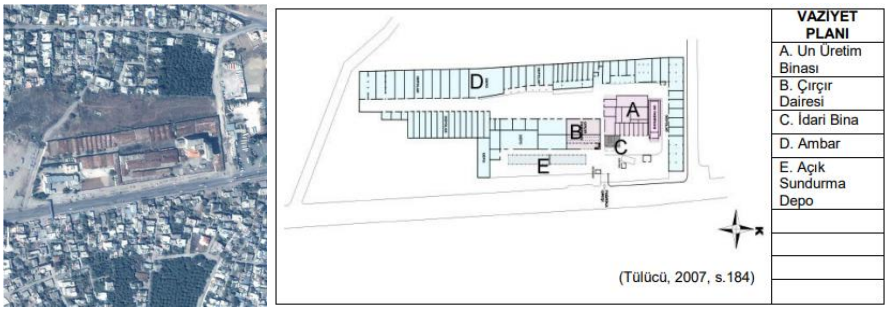

Figure 23. Cumhuriyet Flour and Ginning Factory Layout Plan (Tülücü, 2007, p. 184-85).

The silo of the factory, which started its operations in 1923, was added in 1951. The facility, which has a rectangular residential area extending on a north-south axis, includes a flour preparation and ginning unit, administration building and warehouses **(Figure 23, 24).** The factory facility is not active today and it is abandoned (Tülücü, 2007, p.185).

Today, the factory structures lost their functions. Since the buildings were intervened, the spatial organizations and traces of the production process changed, but the main elements in their architecture remain constant. The ground floors were generally converted into warehouses, auto repair shops and shops selling various construction materials. In Cumhuriyet Flour and Ginning Factory, which was registered by Adana Cultural and Natural Heritage Preservation Board in 2009 (AKTVKKA), 2009, the silo and warehouse structure, which were added later to the main production structure, excluding the administrative building and additional warehouses, were also taken under protection.

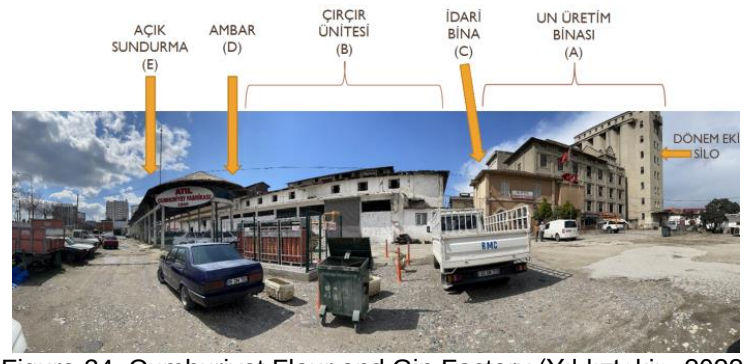

Figure 24. Cumhuriyet Flour and Gin Factory (Yıldıztekin, 2022)
(Gamze YILDIZTEKİN HKU Department of Interior Architecture Graduate Student)

In this context, Cumhuriyet Flour and Gin Factory is an industrial heritage that should be protected because it contains production, socialization, education and recreation spaces together, reflects the basic criteria of Republican modernization, and a statist, rational and functional approach, and is one of the leading structures of today's industrial heritage in functional and spatial context. The campus was designed to be used in social sustainability and socio-cultural activities, not as a cultural and artistic structure, but as a culture and art region/area. With its conceptual proposal, in the existing buildings, which will be put into use by re-functioning, cotton, which was once called “white gold”, the most important source of income of Adana, and wheat, one of the important food sources, are the main elements, and a design approach was developed over using this concept.

Since the structures in the area, the structural system consists of wide openings and generally high volumes, and can be easily intervened, spatially, the flour production building and silo were proposed as a museum. It is observed that the original machines still exist from the date of registration. Materials containing the conceptual narrative about an ear of flour coming from the field as flour and to the stalls as food were preferred; a flexible and recyclable architectural design concept was realized by using industrial materials with minimal intervention, without compromising the originality of the interior spaces, without changing the paint and lighting. Some of the gin building structures were converted into cafes, and sitting areas were created that integrate with the protected open porches in front of it. In the volumes that continue at the back of the gin building, thematic museum spaces that open new horizons, describing the adventure of cotton from the field until it reaches the users, are characterized. In the remaining warehouse volumes, there will be flour, cotton, fabric themed workshop areas and sales areas. It is also aimed to present local productions to users and to revitalize the region **(Figure 25).**

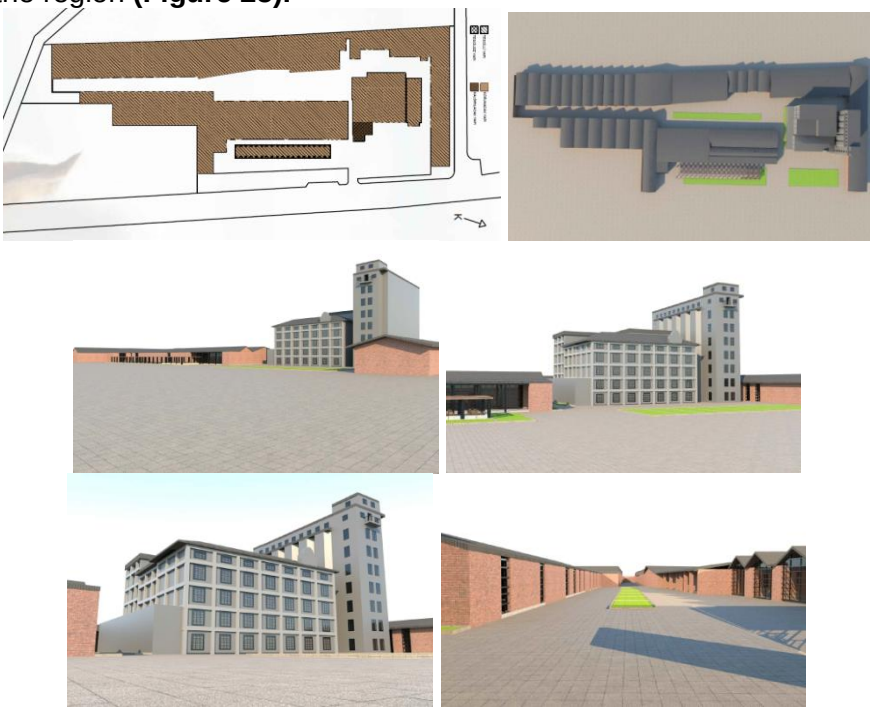

Figure 25. Adana Cumhuriyet Flour and Gin Factory, Design Conceptual Proposal for Re-functioned Areas
(Gamze YILDIZTEKİN HKU Department of Interior Architecture Graduate Student)

2.5. Old Fair Building, Şahinbey, Gaziantep

The four industrial heritage buildings presented in the text above are re-functioned buildings. It is understood that the example of Gaziantep Old Fair Building was completely destroyed and does not exist in its place at the moment. Therefore, the building also presents differences with other examples in terms of working method and style.

In the historical process, in the context of changing economic development, development trends and technologies, fairs have also developed and gained diversity. The most striking example of this is EXPOs. EXPOs reflect the developments in the world, the social and economic situation of the period, social orientations, trends, and fashions; directs the world's agenda by giving ideological messages with themes in different fields; and differ from all other fairs with some characteristic features. EXPOs are important social and commercial cultural spaces where the nations of the world come together to exhibit their cultures, arts, new technologies and products and to reveal their identities (Erdin and Kokum, 2006, p. 59).

When industrial revolution and fairs in Turkey are examined, it is seen that, among these fair centers opened after 1963, Samsun, Bursa, Erzurum, Kayseri, Gaziantep, Mersin, Trabzon, Balıkesir, and Konya draw attention as developed and expanded centers within the scope of metropolitan cities today (Acartürk, 2012, p. 58).

The reason why Gaziantep was chosen for the fair is that Gaziantep, which is the gateway to the GAP geographically, is the 6th largest province of Turkey and 1st largest province of Southeastern Anatolia region and it is one of the most important provinces of Turkey with its population, economic structure, social texture, and metropolitan status. The fact that Gaziantep was founded on the 2000-year-old Silk Road, starting from China and extending to Europe and where trade was made between these places; where knowledge, ideas, cultures and religious beliefs affected each other has given it productivity and commercial capability, which are its characteristic features (GTO, 2012). The commercial infrastructure of the province, which dates back thousands of years and is one of the first settlement areas of Anatolia, has survived to the present day by developing (Sandal and Şen, 2013, p. 45). In 1963, Architect Ferruh Örel prepared the Gaziantep fair project (URL-9).

The Old Fair Building is located on İstasyon Street in Gaziantep. The fair building, which was opened in 1972, accompanying the beginning of the city's growth and introducing it to the whole country, was terminated due to its inability to serve this glorious period **(Figure 26).** The fair building, which is a public space offered to the use of the public in the collective memory, which has the quality of cultural heritage, was left out of function for many years. The fair in the background continues as a wedding and wedding hall.

Figure 26. Gaziantep Fair, 1972 (Antep Landscape from Halit Ziya Biçer's Lens and Archive) (URL-10)

If we focus on the current situation of Gaziantep İstasyon Street construction - old fairground and its surroundings, in the region, because unforeseen applications, as in the whole world, consumption-indexed structures started to rise in the next period, first a hotel in 2010 and a shopping center in 2013 were put into service in and around the fair building, which lost its function and was demolished **(Figure 27, 28).** Therefore, they lost their perceptibility and public interest day by day, and social memory and local culture became unsustainable. The public spaces that are offered to the public should not be handled with high exchange values arising from the concern of rent but should be transformed into various functions depending on their use values, considering the participation of the people of the city in the process of public interest.

Figure 27. Hotel, 2010 (URL-11)

Figure 28. Shopping Mall, 2013 (URL-12)

In this context, it is necessary to correctly evaluate the contextual, spatial, location-dependent, economic value of the building starting from its place in the urban identity. The fact that the connection between tannery dining areas around Alleben Stream, forming the cultural axis of the city, and Kalealtı starts with the İstasyon Street makes the old fairground and its surroundings important and a design approach was developed to identify its lost original urban texture with the city and ensure its sustainability. With the contextual evaluation criteria, the operational potentials of the spatial and functional situation of the building were evaluated in parallel. These places should be transformed into livable environments for the people of the age, open to

development, without losing their qualitative characteristics of social memory that constitutes the urban identity with new functions.

Although the archaeological museum, the train station building and the station, the tram final stop, the new panorama museum, and the democracy square are on this road, the connection reference to İpekyolu overpass and Zeugma museum was taken on the walking axis of the road. As part of the urban design project, all these structures were reconsidered on a single axis/ground, considering the continuity of pedestrian and place. They were reinterpreted with the socio-cultural values of the period in which they were constructed, their traces in memory and today's values, without losing their originality **(Figure 29).**

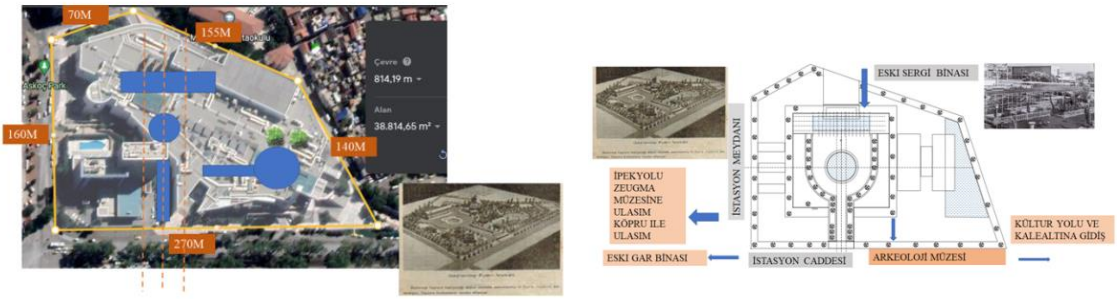

Figure 29. Gaziantep Old Fairground and Surroundings Restitution Study
(Measurement was made via Google Earth) (Çoşkun, 2022)
(Derya ÇOŞKUN HKU Department of Interior Architecture Graduate Student)

It was suggested that the old bookstore, Sümerbank press, button shop, casino, open-air cinemas, shops, urban places, which are in the memory of the city could be re-adapted into these places, and this should be made in accordance with the function change in the memory (URL-13).

With the effect of changing urban dynamics, the terms “transit places” and “non-lieux” are discussed in today's public space literature. According to Auge (1997), “place” is defined as a relational and historically definable area with an identity, while “non-lieux” does not create a specific identity and relationship environment and creates loneliness and similarity. The concept of place, which gives a sense of belonging to a place, is formed by mental processes that are processed “in place” on the ground of certain objects, cases, structures, spaces (Koçyiğit, 2018, p. 540). Investments, enlargements and needs are improving the city in the process, but also destroying its history and memory.

The aim of proposing the reconstruction work of Gaziantep old fair building is to present a perspective that will keep the strategies focused on the recovery of the natural environment, human accessibility, and living public functions “in place” by taking the traces and texture that pervaded the city memory in the historical process as reference. By transforming the city into flexible, open to change and development spatial setups with new spatial functions with wide urban openings during festival times, many events will take place at the same time. This formation will also allow biennial and artistic events to be held in the city.

It was regarded appropriate to reconstruct the demolished fair structure, which bears the characteristics of the Architecture of the Republic, together with the production places giving the place its spirit **(Figure 30, 31).** In addition to this, newly built eclectic

buildings led to the emergence of an unqualified architectural language that does not take into account the architectural understanding of the existing texture. Thus, an irreversible loss of cultural heritage will be prevented by reconstructing the fair units, which are examples of modern architectural heritage of the period. It will also be ensured that the continuity of the social memory that constitutes the urban identity can be transferred to the younger generations.

Figure 30. Gaziantep Fairground, 1965 (URL-14)
(Gaziantep Culture Magazine, 10 November 1965)

Figure 31. Gaziantep Fairground, Fair Building, 1982 (URL-15)

With this approach, with its conceptual proposal, it was deemed appropriate to name the fair building, which will enable itself to continue its life by blending the footprints of the past with the new ones, after the Alleben Stream, which witnessed many events in the city.

Where is childhood? Ülkü Tamer quotes from Jorge Amado: *"Man's homeland is his childhood.."* While describing his journeys and memories in Antep, he says *"It is one of the most important elements that make me up. Maybe most of them are gone. But I buried those riches like treasure somewhere inside of me. It provides the opportunity to take them out and discover them again*." Alleben Stream, Antep and childhood…(Tamer, 2020).

The Fair Building was not used in its original form and the Nizip Street, which remained in the dark, and circulation areas were emptied for the flow of light and energy. On the second floor of the cultural center structure, where artistic activities will be held, the storey height was augmented for the cinema activity **(Figure 32).**

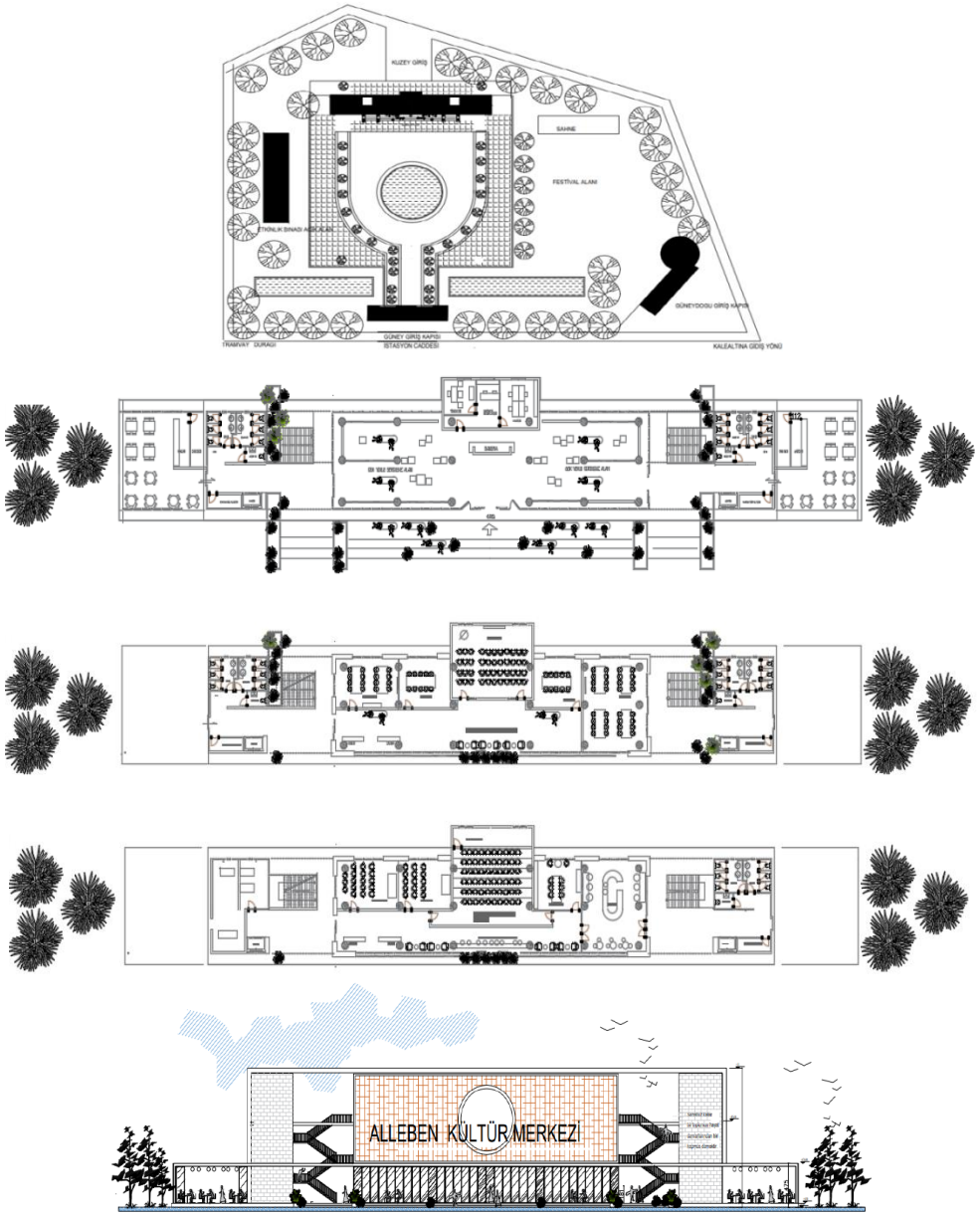

Figure 32. Gaziantep Old Fair Building, Design Proposal for Alleben Cultural Center (Derya ÇOŞKUN HKU Department of Interior Architecture Graduate Student)

Evaluation and Conclusion

Industrial heritage buildings and areas are certificatory with their values. They reflect the production technology, social, economic, cultural and political structure, historical building materials, construction techniques and design of the period when they were constructed. If the necessary repair and maintenance is not performed to ensure their continuity by conservation, they lose their function and value and are under the influence of destruction. Therefore, they lose their perceptibility and public interest day by day, and the collective memory and local culture become unsustainable.

Thus, their integration into the modern world should be ensured in order to reveal and protect all the document value, information value and potential of industrial structures. In the process of bringing the building to life with a new function that can meet the current spatial needs, scientific studies should be carried out in order to preserve the technological and social qualities of the building.

At this point, in industrial heritage structures, the concept of re-functioning for a successful transformation is not just a function change. All necessary analyzes must be performed. It should not only be on the basis of the building, but also include the determination of some design criteria, the design by determining the most appropriate function, and interventions that will not spoil the character of the building.

First of all, the architectural and spatial setup of an industrial building that will be re-functionalized should be reinterpreted with the socio-cultural values of the period when it was built, traces in memory and today's values. Starting from the building's place in the urban identity, its contextual, spatial and location-dependent economic value should be evaluated correctly.

With the contextual evaluation criteria, the potentials of the spatial situation and functional situation of the building should be evaluated in parallel. Depending on the continuity of the user relationship of re-functioning measured by this value, since social effects are more important today in terms of keeping the values of the city alive and preserving them, together with the fictions that the new function will bring, they directly affect the intervention.

Industrial buildings are of great importance in terms of conveying the technology and economic order of the period in which they were built, and reflecting a certain period experienced by the society. For this purpose, in five selected industry buildings and industrial areas in Turkey, which lost their functions over time and became dilapidated and neglected and that were emptied in the 20th century and became inactive or re-functionalized were studied by Hasan Kalyoncu University Department of Architecture-Interior Architecture students within the scope of the "Industrial Heritage and Conservation" course between the years 2020-2022. In the interior design approach proposals for the re-functionalized industrial buildings studied with this approach, the criteria established within the scope of the evaluation process were determined:

- Different approaches are seen in re-functioning practices, which cover the reuse and transformation of existing industrial heritage structures and allow them to be used in accordance with the conditions of the day. In line with the conceptual design, studies that will be given a new function should be analyzed and evaluated according to current protection practices.

- Preserving and industrial heritage means raising awareness about its re-functioning and it also includes the process of designing a new/contemporary interior space. To be able to recognize the production technology, social, economic, cultural, and political structure, historical building materials, construction techniques and design of the period,

- Preserving and repairing the equipment of the building as it is in the process of bringing the industrial structure to life with a new function, determining the material problems of the interior of the building, which is a product of its age, producing a solution with a new design designed with modern technology, making it livable for the people of the age,

- To develop students' skills of identifying problems, perceiving, questioning, analyzing, synthesizing, and creating that students will encounter in interior design, and to gain the ability to think and express three-dimensionally,

- The students are expected to create their own scenarios, determine a concept suitable for their starting ideas, and design their designs in line with these, giving them a special and unique identity for the area they will organize. While designing, students should create and construct plan schemes by themselves in accordance with their themes and scenarios,

- Lighting suggestions and applications in relation to color, material, furniture and product selections and application details of industrial heritage volumes are also critical points of conceptual studies.

- It is also aimed to develop the ability to solve design problems, indoor-outdoor relationship, and unique details, in which the immediate surroundings of the industrial heritage are handled like the interior. Open and semi-open spaces should be designed by associating these with the functions they propose.

- In the re-use of industrial buildings, cultural and artistic uses open to the public should be preferred instead of individual use, on the one hand, they are reintroduced to social life, on the other hand, they are made into structures that contribute to the urban culture,

Industrial structures surviving from the past years to today and lost their purpose of construction should be analyzed in detail to serve future generations again, their potential should be evaluated, and they should be transformed in accordance with the functional change that adapts to the use of society's benefit and does not lose its value.

During the transformation of use, industrial heritage buildings should not lose their qualitative characteristics of the social memory that constitutes the urban identity with new functions. The equipment belonging to the building should be preserved and repaired as it is, and these structures should be transformed into flexible, open to change and development, livable environments for the people of the age. The structural system of the interior spaces, which are the products of their era, revealed in the examples, should be planned to determine the material problems, to produce solutions with the effect of new spatial programming designed with contemporary technology, and to create a flexible space.

It is an expected phenomenon in terms of protectionism that the additions to be made reflect the character of the building's period with readable qualities from the outside, and contemporary, lightweight-detachable materials are used. They should not damage the identity of the building by creating a contrast with the historical building. As part of its cultural, social, economic history, they should include references to the continuity of social memory that can be passed on to younger generations.

As a result, it was aimed to transform the structures that have been waiting in an empty and dilapidated state for years within the scope of industrial heritage or that have not been intervened in accordance with the conservation theory, into structures that integrate with the environment and the public and that are starting to experience social sustainability again.

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