



Contemporary Space Designs at Cibali Tobacco and Cigarette Factory, Renovated with Educational Functions

Eğitim İşleviyle Yenilenen Cibali Tütün ve Sigara Fabrikası'nda Çağdaş Mekân Kurguları

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öz

Mekân mimarlık disiplinin önemli öğelerinden birini oluşturmakta olup bir binayı üç boyutlu bir kütle olmaktan öteye taşıyarak anlamlandırmaktadır. Yapının içerdiği mekanları tasarlamak, içerecekleri eylemleri belirlemek mimarlığı diğer yapı yapma eylemlerinden farklı kılmaktadır. Endüstri yapılarında mekanlar üretimin sağlanacağı büyük ölçekli makinelerin kullanımına uygun şekilde tasarlanmıştır. Kentlerin gelişmesiyle kent merkezlerinde önemli konumlarda kalan bu yapılar değişen üretim koşullarıyla birlikte işlevlerini yitirerek terkedilmektedir. Buldukları konumlar ve güçlü strüktür sistemi, büyük hacimler içermesi gibi nitelikli yapısal özellikler nedeniyle bu yapılara yeni işlevler verilmesi ve yaşamlarını sürdürmelerinin sağlanması alternatif bir yapı üretim tekniği oluşturmaktadır. Endüstri yapılarının sahip oldukları yapısal özellikler işlev seçiminde çeşitli kullanımlara imkân sağlamaktadır. Yeniden kullanılmak üzere yenilenen bu yapılarda ihtiyaç duyulan mekanlar mevcut hacimler içerisinde mekân bileşenleri ve öğelerinin yardımıyla organize edilmektedir. Bu çalışmada üniversite eğitim yapısı olarak işlevlendirilen Cibali Tütün ve Sigara Fabrikası'nın çağdaş eğitim mekanları içerecek şekilde yenilenmesi esnasında yapılan ek tasarımların incelenmesi ve tasarlanan çağdaş mekân kurgularının değerlendirilmesi amaçlanmıştır. Çalışmada nitel araştırma yöntemi kullanılmış olup alan çalışmasını oluşturan Cibali Tütün ve Sigara Fabrikası'nın tarihi, mimari özellikleri ile yenilenen mekân kurguları yazılı kaynaklar, fotoğraf ve çizimler aracılığıyla analiz edilmiştir. Çalışmada, ek mekân bileşenleri ve öğeleri yardımıyla tasarlanan yeni mekanlardaki çağdaş kullanım fikirleri değerlendirilmiştir. Çalışmanın sonucunda yeniden işlevlendirilecek endüstri yapılarında yapılacak ek tasarımlar için önerilerde bulunulmuştur.

Anahtar Kelimeler: Mekân Kurgusu, Mekânın Bileşen ve Öğeleri, Yeniden Kullanım, Çağdaş Mekân, Endüstri Yapıları

ABSTRACT

Space constitutes one of the important elements of the architectural discipline and gives meaning to a building by moving it beyond being a three-dimensional mass. Designing the spaces that the building contains and determining the actions they will contain makes architecture different from other building activities. The spaces in industrial buildings are designed in accordance with the use of large-scale machines where production will be provided. These structures, which remain in important positions in the city centers with the development of the cities, are abandoned by losing their functions with the changing production conditions. Due to their location, strong structural system, and high-quality structural features such as large volumes, giving these structures new functions and ensuring their survival creates an alternative building production technique. The structural features of industrial buildings enable various uses in function selection. The spaces needed in these buildings, which are renovated for reuse, are organized within the existing volumes with the help of space components and elements. In this study, it is aimed to examine the additional designs made during the renovation of the Cibali Tobacco and Cigarette Factory, which is functioning as a university education structure, to include contemporary education spaces, and to evaluate the designed contemporary space setups. Qualitative research method was used in the study, and the history, architectural features, and renewed space design of Cibali Tobacco and Cigarette Factory, which constitutes the field study, were analyzed through written sources, photographs, and drawings. In the study, contemporary usage ideas in new spaces designed with the help of additional space components and elements were evaluated. As a result of the study, suggestions were made for additional designs to be made in industrial buildings to be re-functionalized.

Keywords: Space Design, Components and Elements of Space, Adaptive Reuse, Contemporary Space, Industrial Structures

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INTRODUCTION

The Industrial Revolution, which started in England, provided the conditions in which mechanical production systems carried out using steam power were replaced by the ones in which production was provided using electrical power. Large-scale new structures were built, suitable for the new machines that carried out production. The developments also affected the lifestyles of societies and the development of cities. With the introduction of electronic devices because of technological developments and the automation of production, the need for structures constructed for large machines has also decreased. Industrial structures within the developing urban fabric were abandoned with the change of production systems and spatial needs. Industrial buildings have structural features that include solid structures and large-scale plans. Thanks to its qualified structural features, it has the potential to be reused. The reuse of these structures with a correct function creates an alternative building production technique. Their structural features allow various program options in function selection.

The space, which is at the base of the architecture, expresses a vacant area defined by the boundary elements. Space components that determine the boundaries of the space and space elements that affect the use of the space have an important role in the space design. When it comes to reusing existing spaces designed for a specific function, space is reconstructed with the help of components and space elements. In the reuse of industrial buildings that have lost their function, new additional interventions are made to the buildings and the existing spaces are reconstructed with contemporary elements. The re-use of industrial buildings containing production spaces as science-producing university education structures requires the construction of needed educational spaces. While the unqualified units of the existing building are cleaned, on the other hand, space components and elements are added to define new spaces. The issue that is considered as a problem in the study is the production of contemporary additional ideas that do not overshadow the original structure in the additional designs, do not harm the structure, on the contrary, will help the building to survive by feeding it. The aim of the study is to evaluate the additional interventions made in the process of renewal for reuse by emphasizing the importance of the qualities of industrial structures that are no longer needed because of the inevitable change and development and therefore lost their function and left alone.

In the present study, first, a literature review was conducted on the concepts of space, space components and elements, industrial structures, and the spatial configurations of these structures, which are the concepts that make up the theoretical infrastructure. The spatial changes of industrial buildings, which are subject to reuse with a new function, and the contribution of these structures to cultural unity have been examined. In the study, the history, architectural features, and renewed space designs of the Cibali Tobacco and Cigarette Factory, which is used with an educational function, were analyzed by using the qualitative research method. Based on the field study method, the written sources, photographs, and drawings of this building were examined, and the building was explored and analyzed. In line with the investigations, the original traces they contain because of the renovations of the buildings and the spatial configurations provided by the newly added components and elements were examined. The place of the study in the literature is considered important because of the idea of reuse, conveying the industrial heritage to future generations, and developing suggestions for space setups in the renewal of existing volumes.

1. The Concept of Space and the Formation of Space Design

Space is defined in the Encyclopedic Dictionary of Architecture as “the space that separates people from the environment to a certain extent and is suitable for continuing their action in it; it is explained as the defining environment that emerges by the delimitation of the space and is open to the visual impression and perception of its contents (Hasol, 2020). Zevi (1990) says that architecture is a stage on which we live, and that the most important player is space. This shows that the space is one of the most important elements of the architecture. The meaning of the concept of space for architecture, according to Kuban (1990) “begins with the emergence of a private space lived in architecture, separating man from the natural environment. This special space, which we call “space”, distinguishes architecture from other building actions.” İnceoğlu (2007) states that space is important for a building to become more than a three-dimensional mass. The architectural product is understood in terms of the spatial characteristics it contains. The space, on the other hand, becomes meaningful by constructing the components that define it and the elements suitable for its function.

There are natural or artificial limiting elements that define the space. The space delimited by these elements becomes perceptible and the space is defined. These horizontal and vertical elements that make up the space form the components of the space. In addition to creating the space, they also have a decisive role in communicating between spaces. They help to construct spaces as limiting, unifying, directing, and sustaining elements (Özdemir, 1994). While the components of the space are structural components such as walls, columns, beams, floors, stairs, roofs, doors, windows that make up the building, the elements that are effective in the formation of the space are movable elements such as furniture, equipment, and accessories.

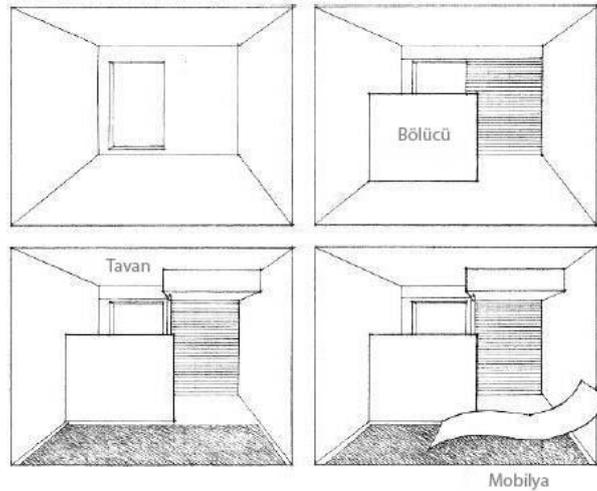


Figure 1. Space and the elements defining the space (Lewis, 2013)

Distinguishing the spaces that are delimited and defined with the help of components and elements is directly proportional to their perceptibility (İnceoğlu, 2007). Although tools such as two-dimensional plans, sections, facade drawings or three-dimensional models constitute a way of describing the space, the space is perceived through direct experience (Zevi, *Mimariyi Görmeyi Öğrenmek*, 1990). For architectural space, perception, which is the act of acquiring information through the senses (Günel & Esin, 2007), is as important as the components and elements that make up the space. The life defined in the perception of the space depends on the movements of the users. Living in it and experiencing the function it possesses provides the perception of the space. In terms of being the determinant of the success of the design of the space, the relationship between the components and elements that ensure the integrity of the space, its suitability for its function and perception is important.

Space design is important in terms of providing a better living environment for users. The function is used to determine the components and elements for the construction of the spaces. When the components and elements that make up the space are also used as border elements, they define new sub-spaces within the existing space (Kurak Açı, 2006). The space, which resembles a box consisting of six planes, when reconsidered in a contemporary context, allows for component choices suitable for today's uses. Zevi (1978) says that separating the planes that make up the space, which is in the form of a closed box, is a revolutionary action for modern architecture. Ideas such as separating the planes that define the space, making changes in their forms, opening the spaces for light transmission will make the space more meaningful than a closed box.

The space setup is designed with the organization of space components and space elements that define the space according to the function and users of the space. The quality of the space consists of the limiting surfaces and the whole of the furniture elements that determine the use of the space (Altan, 2012). While the space is designed according to the needs of the users, it also directs the behaviors of the users and affects their psychology (Ertemli, 2018). Contemporary space designs aim to meet the needs of the day in developing living conditions and the changes that will occur over time. For this reason, the space should be flexible to adapt to the changes. A contemporary space should be accessible and functional to accommodate a variety of uses. The relationship of the spaces that a building contains with each other is as important as the space setup and affects the use of the building. Transparency is ensured between the spaces separated by transparent dividing surfaces, and it increases the communication of the spaces with each other. The purpose of designing the space is to create a comfortable and safe environment for the users.

The components and elements used in the construction of the space are discussed in line with the reuse of existing spaces within the scope of the study. In the renovated industrial structures, the existing volumes become ready for their new functions with the help of space components and elements. In the structure discussed within the scope of the study, components such as walls, columns, beams, floors, stairs, roofs, doors, windows, which enable the formation and construction of new spaces, and elements that are effective in the formation of the space such as furniture, equipment and accessories have been examined. In the study, it is aimed to determine the additional space components and elements in the newly constructed spaces and to evaluate the designed space.

2. Reuse of Old Industrial Structures

The industry, which is defined as “the whole of the methods and tools used to process raw materials and create energy resources” (TDK, 1932), ensures that raw materials are processed through technology and workforce and transformed into the demanded forms. Manufacturing is the act of creating products with the combination of human labor and brain power. The processing of materials to produce tools and equipment used by people in many areas of daily life is carried out through industry.

Industrial buildings are production buildings with practical and functional designs. These structures are divided into groups by Kırac (2001) as production structures, warehouses, transportation structures, sales and exhibition spaces, and worker settlements. Industrial structures include all the structures that support the production together with the factory structures where the production takes place. The functions of the buildings and their relations with each other affect the spatial configurations. Volumetric and spatial designs consist of repeating volumes or a single volume in line with their function, and these perceived volumes reflect the identity of the space (Kırac, 2001). Industrial buildings have remarkable architectural features with their size, usefulness, and simple decorations (Moshaver, 2012). As a result of the industrial revolution, these structures, which were built for

production, which is inevitable for the development of countries, and have qualified structural features, have become unable to fulfill their function with the effect of technological developments. When it comes to re-functioning, they offer different opportunities from other structures due to their durability in terms of structure and materials, high ceilings and large volumes, and the absence of ornamental elements. Before the industrial structure is reused, it should be adequately evaluated, and the appropriate function should be selected in line with its structural and spatial characteristics.

The lifetimes of the physical properties of the buildings are longer than their functions. Even if they continue to function, the developments in these structures necessitate renovation works. Reusing an existing building requires less energy than the demolition and rebuilding process and is an environmentally sustainable choice (Bayraktarođlu, 2019). In this sense, the positive aspects such as economy, the combination of the old and the modern, having a different atmosphere, the effectiveness of the cultural heritage and contributing to the urban culture (Ercivan, 2004) support the idea of reuse of these structures.

According to the statute of TICCIH (The International Committee for the Conservation of Industrial Heritage), industrial buildings are defined as industrial heritage due to the historical, architectural, scientific, technological, social, and cultural values they carry. The location of industrial buildings in coastal areas and city centers, their high quality and durable materials, their historical and cultural values, and their characterization provide high rent and transformation value. Approaching these structures only for the purpose of generating income and renovating them in this way causes damage to the structure and the loss of the historical and cultural values of the building (Ađrılı, 2015). Altınoluk (1998) states that instead of approaching industrial heritage structures as a commodity that will generate income, it would be more accurate to look at these structures as cultural assets that should be used, kept alive and transferred to future generations.

Each time period in life is a connector between the past and the future. In the same way, the buildings meet the contemporary needs of the day and carry them to the future by making use of the past cultural accumulations. Atakan (2018) states that the task of space designers is to design spaces in today's language, including cultural awareness, social memory, and thoughts about the past. The culture examined by the designer should be presented in the space designed by associating with the modern and conveyed to the society.

In a master thesis, in which examples of reuse of industrial buildings with different functions are examined, the additions needed to fulfill their new functions and the spaces created by these additions were examined by Balçık (2020). The new function they have installed affects the space design and the additions to be made. The fact that the volumetric features of the existing building are references for the new function ensures that the original structure is less subject to intervention during the renovation process. In line with the additional design ideas, flexible, accessible, transparent, functional, and socially interactive spaces are created. In this study, Cibali Tobacco and Cigarette Factory, which is being reused with its educational function, is discussed in line with the work focused on the renovation of industrial buildings to include contemporary educational spaces and the new space setups they contain.

3. Space Designs in Cibali Tobacco and Cigarette Factory which is Used with Educational Function

In the re-functioning studies, it is aimed to improve the relationship of the building with its environment and to have a long-lasting use with sustainable and flexible qualities. In this study, in which the industrial structure in Turkey, used with the education function is discussed, the renovation interventions applied to the building were evaluated. In the study, Cibali Tobacco and Cigarette Factory, which was used as Istanbul Kadir Has University Campus, was examined. The spaces needed to use the factory building as an educational structure, the interventions made to create these spaces, and the space designs created were evaluated.

Cibali Tobacco and Cigarette Factory structure, located in the west of the Golden Horn in Istanbul's Fatih district, was designed by Alexandre Vallauray and Hovsep Aznavur and started its production activities in 1884. After the industrial structure lost its function in 1995, it was registered as a cultural property to be protected in 1997 (Köksal, 2005). The renovation of the industrial structure, which has been used as an educational structure since 2002, was carried out by Mehmet Alper.

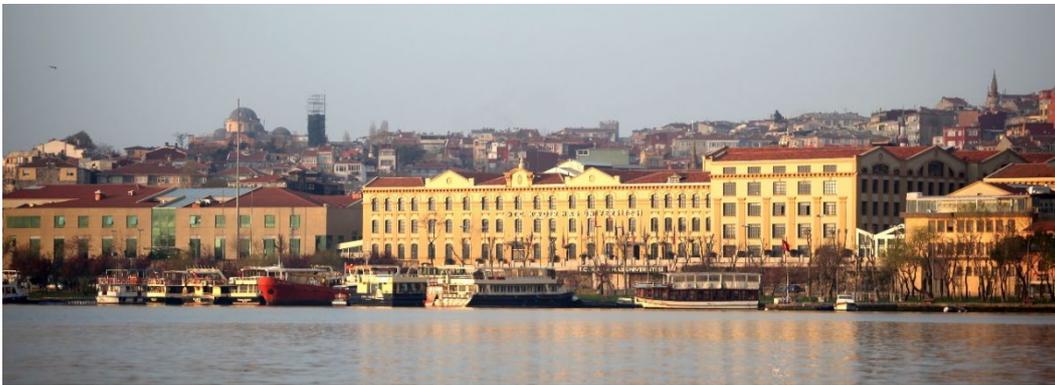


Figure 2. Cibali Tobacco and Cigarette Factory / Kadir Has University (URL-1)

It is known that the industrial structure was built gradually, and thanks to the photographs taken by Guillaume Berggren (1990) and P. Evrard (1908), information about the interior and exterior features of its original state is obtained (Kıraç, 2001). During the renovation process, the fourth floor, which was not present when the building was first built, was demolished and a gable roof was added in line with the information obtained from the visuals. It carries the style, materials, and construction techniques of the building period. Industrial buildings, beyond being a product of architecture and engineering, are also important because they reflect the technologies, social-economic-political structures, and production processes of societies (Suna, 2013). The industrial structure was renovated to be used with the function of university education, preserving its architectural features, aesthetics, and character. During the renovation process, the details reflecting the original material and technical features of the building were preserved as much as possible.

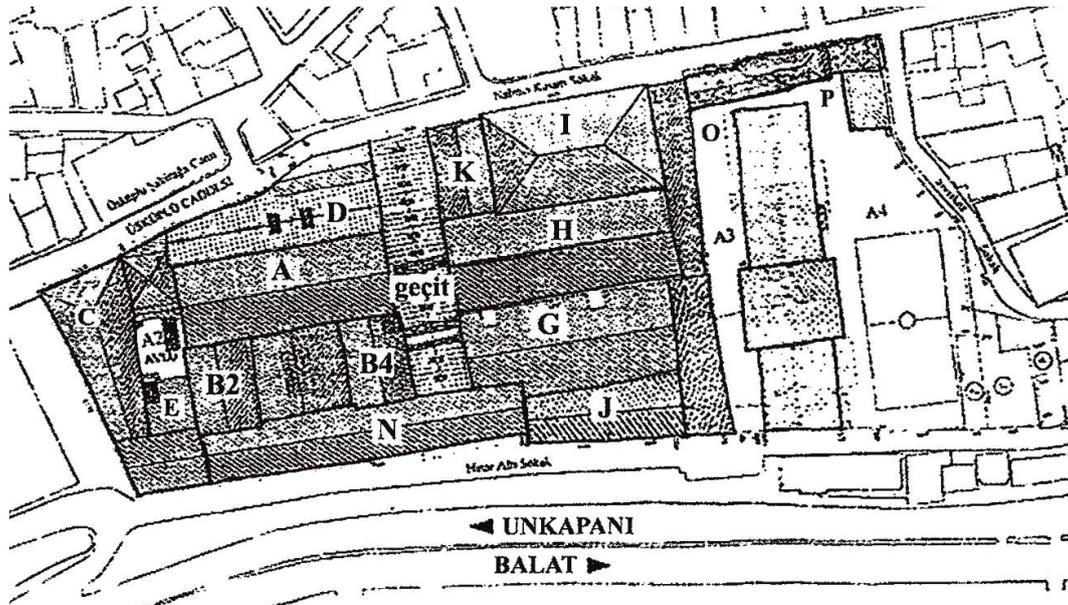


Figure 3. Cibali Tobacco and Cigarette Factory site plan (Erdinç, 2002)

The industrial structure discussed within the scope of the study consists of three building groups consisting of more than one block. These building groups are connected to each other by passages provided by the top cover. It was designed as three blocks by taking advantage of this separation during the renovation process. Within the building, presidency and administration offices, and laboratories are located in one block, a seminar hall, laboratories, institutes and multi-purpose hall are located in the other block, and fine arts workshops and classrooms are in the third block. Next to these blocks, the fourth block, which is in addition to the historical building, has been used as an Education and Culture Center. At the same time, the building is located on water cisterns from the Byzantine period. When used as an industrial structure, the cisterns (Suna, 2013), which were used as a warehouse for the storage of tobacco, were renovated as a museum space.

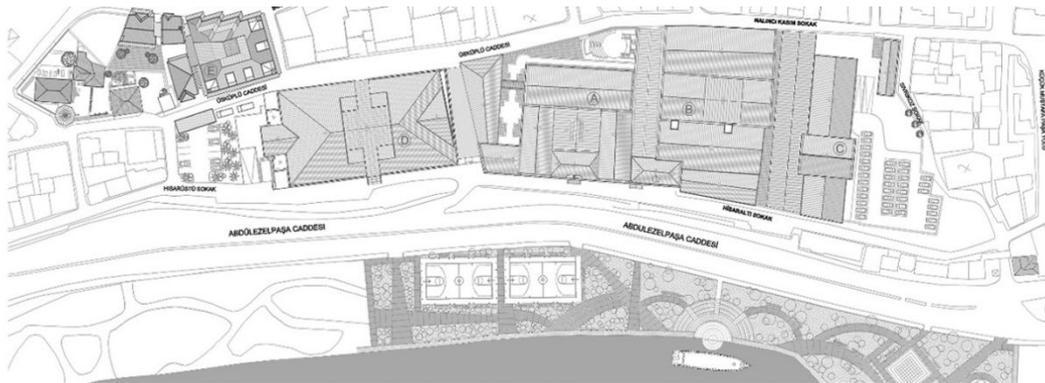


Figure 4. Kadir Has University site plan (M. Alper archive)

In this study, which deals with the interventions made for the space designs during the renovation processes of the industrial structure, the spaces of the A, B, C, D blocks, the passages designed between the blocks and the applications made in the exterior of the building are evaluated. There are administrative units, meeting hall, seminar hall and library spaces in Block A. New Garden and courtyard spaces were created between the buildings by cleaning the unqualified E and F buildings in the A block formed by the building groups (Figure 5). The structures on the inner garden created are

connected to each other with bridge connectors. The library space in the A block is designed with the additions of circulation, flooring, and space elements (Figure 6). In addition, a connection addition was designed to provide the passage from the library space to building C located in block A.



Figure 5. A block inner garden and courtyard spaces

The space between the A and B blocks and connecting the east and west entrances of the industrial structure in its original function constitute the entrance area of the renovated building with its university function (Figure 6). This passage space, which has a steel suspended roof, has been renewed with glass as the top cover material. The façade facing the inner garden, which was formed as a result of the removal of the D building, was also renewed with glass material, allowing the place to be illuminated with daylight. At the same time, a new entrance to the building was defined through this opening. The cafeteria at this entrance also enabled the space to be used as a social space.

Block B is organized to include education units and classrooms. In addition to these, there is a foyer, information desk, seminar hall, computer laboratory, multi-purpose hall and cafeteria on the ground floor. Machines belonging to the factory are exhibited in the foyer and with the glass floor, transparency and communication are attained with the place where the cisterns are located under the building (Figure 7). The area with the top cover, located between the H and G buildings in the B block, has been turned into a covered courtyard by solving the lighting and ventilation problems. The foyer also communicates with this courtyard. The circulation elements in the courtyard provided access to the classrooms.

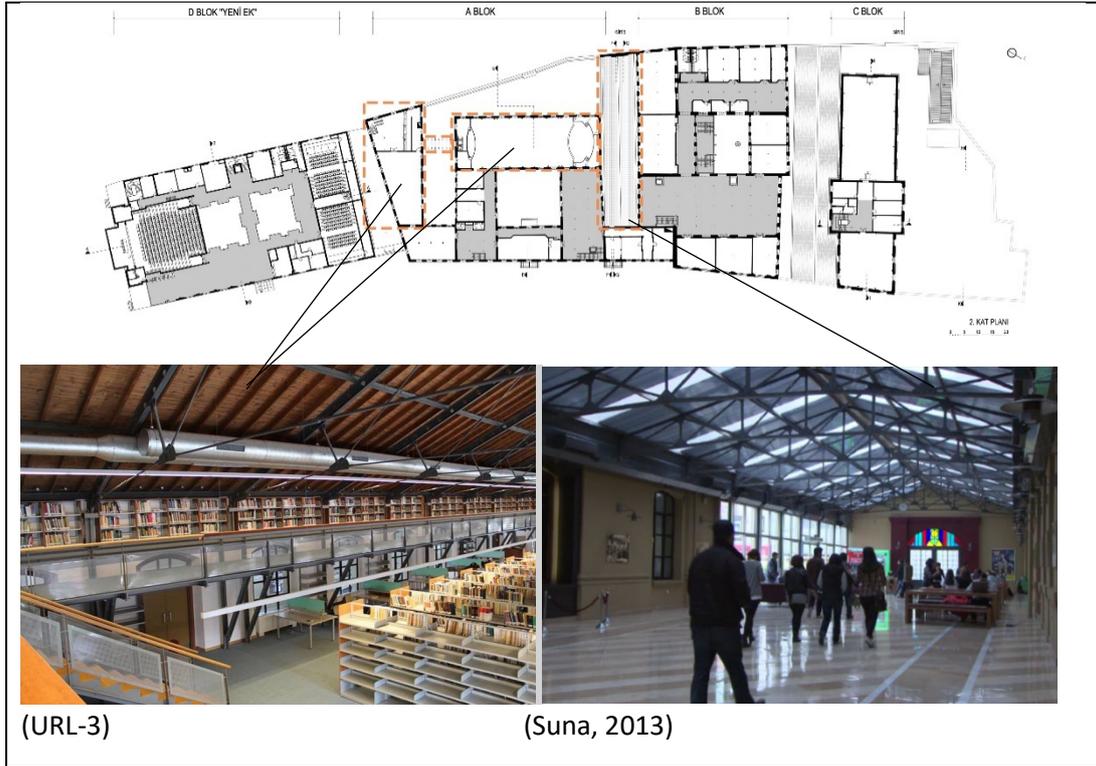


Figure 6. The crossing spaces between the library of Block A and AB



Figure 7. B Block courtyard and foyer spaces

The courtyard space between Block B and Block C is covered and used both as an entrance space for C block and as an exhibition and conference hall for the museum (Figure 8). The space is covered with a structure a combination of steel and glass. By placing the necessary space elements, the functions of the museum and conference hall are defined.

The ground floor and first floor were formed by the renovation of the warehouse building of the C Block factory, which is being used as the Faculty of Fine Arts. The space formed by the Byzantine period cisterns under the building was renovated to function as a museum (Engin, 2009). It is aimed to communicate with the Rezan Has Museum with the idea of glass flooring on the ground floor of block C (Figure 8). The foyer area of block C also functions as an exhibition space with necessary space elements.



Figure 8. The passage between BC, C Block foyer and Rezan Has Museum venues

The D Block structure, which was used as an Education and Culture center, was added to the factory structures as the most recent addition. The building, which was used as the Tekel Packaging Factory, became dysfunctional in 1968. This building was rebuilt instead of repairing the old one, and meanwhile, it took reference from the existing structures (Kılıç, 2019). The courtyard, which includes bridge connection elements and circulation elements within the building, provides the spaces to connect with each other. An inner garden was created on the ground floor of the courtyard (Figure 9). The gallery spaces on the floors communicate with this garden. Under the D block structure, the needed shelter and parking spaces have been solved.

The covered space between the D block and the A block was used as a working space in the original structure of the factory. The cafeteria function has been defined in this space, which is between the old texture of the A block and the new facade of the D block and is used as a social space (Figure 9). The space also provides the transition between the blocks.

The agora and amphitheater garden spaces designed outside the industrial structure form open areas for students (Figure 10). The agora space was designed in the area that emerged with the removal of the unqualified D structure next to the A block. The amphitheater placed in the area is a space element that allows students to spend time in the open air. A circulation element is placed around the amphitheater to provide entrance to the building from the passage space between Block A and B. Another open space, the amphitheater, was formed by the renewal of the parking lot next to the C

block as a result of an idea competition. The tables and seating items placed in the area allow the open space to be used with more than one function.

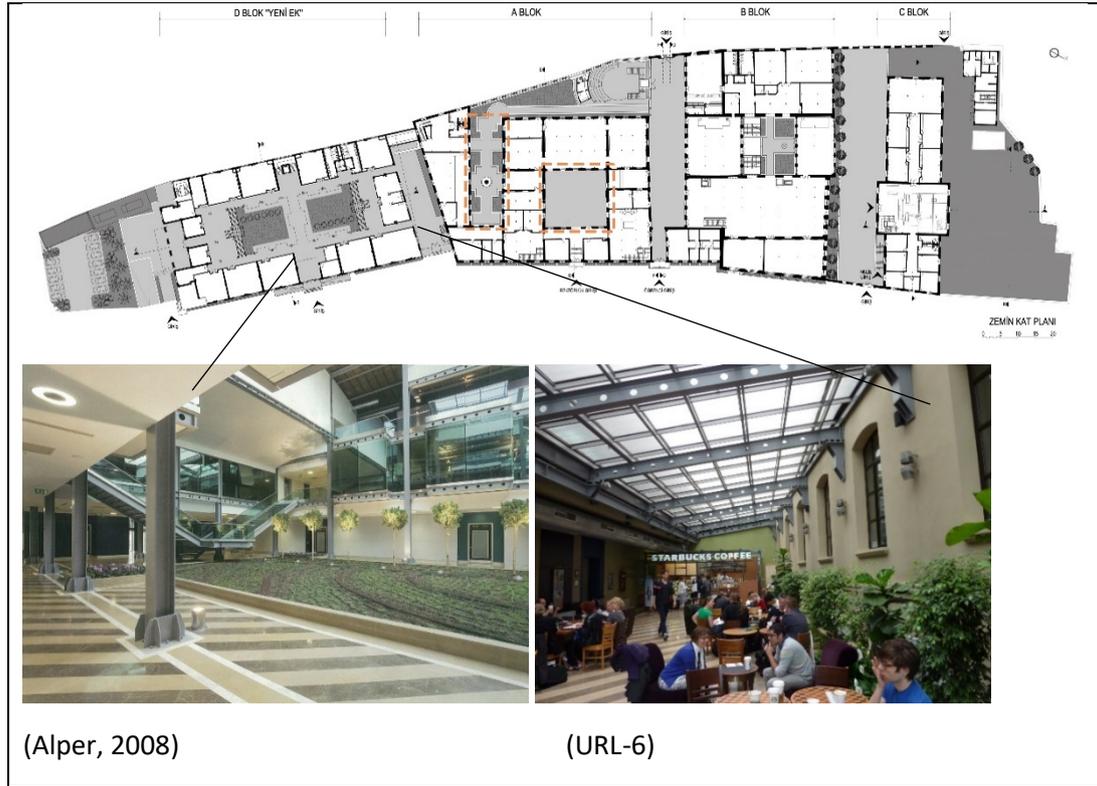


Figure 9. Passage areas between D Block Courtyard and AD



Figure 10. Agora and amphitheater garden spaces

The renovation work of the Cibali Tobacco and Cigarette Factory building, whose renovated spaces were explored and analyzed, to be used with the campus function, was successful in preserving the

original traces of the buildings and reflecting the values of the period in which it was built. The industrial structure with large volumes continues to function with new space components and elements besides its existing values. Additional designs in the construction of the spaces determined in this section are evaluated in the next section. In addition, Cibali Tobacco and Cigarette Factory forms a border with the civil urban settlement. The museum space, which was designed next to the building after the renovation, also provided a semi-public use of the building. The building maintains its public character with its new function and creates a value for the region where it is located.

4. Findings and Discussion

It is important to intervene in such a way that the original values are not lost to convey the industrial structures, which are among cultural asset, to future generations. Architect Mehmet Alper (2008), who carried out the renovation works of the building, states in an interview that it is the right choice to use the Cibali Tobacco and Cigarette Factory with its educational function, and an understanding that does not deform the building and dominates the function is observed in the renovation works (URL-8). Changing living conditions and structures in developing urban spaces have difficulty in maintaining their function and need renewal. M. Wiener explains the importance of Cibali Tobacco and Cigarette Factory for the city skyline in its location on the shores of the Golden Horn, "This three- and four-storey building, consisting of several sections and rising on an embankment formed by the old coastal wall, is a prominent element in the landscape of the Golden Horn region today with its 120-meter-long façade." (Cited from M. Wiener 1992, Kırac, 2001, p. 161). The renovation process must be carefully designed to integrate both the building and its location into daily living conditions. In this sense, the reuse of the Cibali Tobacco and Cigarette Factory with its university function is a correct approach in terms of both maintaining the longevity of the building and transmitting it to future generations and having a public benefit function.

In the industrial structure that is intended to be reused, there are more than one additional space component and element in the renovation process. The additions were examined in terms of the parameters of being removable, containing contemporary materials, and having the qualities that do not harm the old structure and do not overshadow it. The spatial components and elements determined in the building are brought together in Table 1. The table shows how much space elements and components are used in the formation of new spaces and which additions are needed in existing spaces.

Table 1. New additions to contemporary space setups in Cibali Tobacco and Cigarette Factory (Balçık, 2020)

Space	Addition	Connection	Covering	Façade	Building	Space	Bearer	Wall	Flooring	Circulation	Space Elements
A Block	Yard 1		+								+
	Passage and Interior Garden	+									
	Library	+					+		+	+	+
B Block	Space between A and B Blocks		+	+							+
	Yard 2		+				+			+	
	Foyer								+		+
C Block	Space between B and C Blocks		+			+					+
	Foyer								+	+	+
	Rezan Has Museum						+			+	+

D Block	Yard 3	+	+	+						+	
	Space between A and D Blocks		+							+	+
	Agora									+	+
	Amphi Garden										+

- The courtyard spaces in the A and B blocks of the building were covered with top cover attachments and closed spaces were obtained. Likewise, new social spaces have been created by covering the passage spaces between A – B, B – C and A - D blocks with a top cover. Covering additions provided a space for the new function and facilitated the transition between buildings. The transparency of these coverings highlights the original state of the mass and provides natural lighting.

- Glass flooring was added in the foyer spaces in blocks B and C, thus establishing communication with the cisterns on the ground floor. The transparent flooring addition made has contributed to the space by revealing the traces of the original state of the building.

- By adding circulation elements in the library space in Block A, an intermediate level was created, and the elements of the library space were organized. The flooring and circulation additions, which are used to organize large volumes, have light materials and are removable. In addition, the library space communicates with the building C located in the A block with an annex. Light material is used in this addition that connects the areas.

- A museum was designed here because of the cisterns located under Block C. In the formation of the museum space, load-bearing elements, circulation elements that allow navigation around the cisterns and space elements necessary for the museum function were added. The circulation elements and the exhibition items required for the museum can be removed and are in a feature that will not damage the cisterns.

- The D Block structure was formed by rebuilding an existing building. The anchor elements that existed in their original form have been relocated. Office units located on the first floor of the building refer to the houses with bay windows with their facades extending to the inner courtyard. The facades forming the bay windows are designed from light and contemporary glass and steel materials.

- A social space for students was designed with the amphitheater placed on the western façade of the A block for the first time in the renovation works carried out in the exterior of the industrial building. The parking area next to the C block was arranged as a garden in the amphitheater as a result of an idea competition. The placement of the table and seating elements provided the definition of function and the use of the space. The space elements placed outdoors can be arranged without harming the original identity of the building.

Existing block buildings have been renovated to include educational spaces. While there is no need for an additional building in the renovation process, the volumes between the blocks have been turned into closed spaces with top cover additions. The covering additions designed between the building blocks have made the building a holistic one by providing spaces in line with its new function. The newly designed spaces were defined by the space elements placed. Because industrial structures have large volumes, additional floors were designed in the space setup. To use these new floors, circulation elements were needed. While structural elements such as façades, bearers and walls are not needed much, connection additions that ensures the relationship of block buildings with each other are used. It is seen that contemporary glass and steel materials are dominant in the additional designs used in the setup of the space, that the additions do not create a load on the existing carriers, and they were removable.

CONCLUSION

Industrial buildings were constructed for production purposes and contributed to the social and economic life of the regions in which they were located. These buildings, which were in city centers and were abandoned with the development of production systems and technology, have qualified spatial features. For this reason, in this study, the importance of re-functioning industrial structures is emphasized. Industrial buildings with large spaces produced for machines allow different function selections. Existing spaces are reorganized in line with the determined functions, and additional space components and elements are needed in the organization of these spaces. However, the renovation works should consist of simple and reversible applications. The interior and exterior spaces of the Cibali Tobacco and Cigarette Factory, which is considered within the scope of the study, have been reorganized in accordance with the new function of the building and its new users. The additional designs made will not overshadow the original quality of the building and will not dominate the building.

Contemporary materials are used in the annexes, and the components and elements of the space that will define the new function in the spaces establish a relationship with the old texture. Contemporary usage ideas designed have the qualities to meet the needs of both today and the future.

In addition to ensuring the preservation of the existing building stock, the re-functioning of industrial buildings with important architectural qualities is also important in terms of conveying the industrial heritage to the future. The spaces required for the new function should be designed by taking advantage of the existing structural features. It is important that the additions provide new uses by not overshadowing the character of the existing space and by not creating a load. In the new additional designs to be applied in the renovated buildings, it is found positive that

- The top cover attachments should be made of transparent, movable, and light materials that allow natural lighting,
- The connection additions are light, can be dismantled when necessary, and meet the circulation in the building and various activities,
- Providing the needed space additions with contemporary and light materials,
- Separation of bearers' additions from existing ones with color and material differences,
- Horizontal and vertical circulation elements that do not create a load on the structure and can be dismantled when necessary,
- Transparent and movable dividing wall elements that will provide the necessary units.
- Besides these findings, it is recommended that,
- Building additions support the existing structure and highlight the existing one,
- Designing the floor inserts in such a way that certain openings are provided without destroying the volumetric properties of the existing structure,
- The additions made to the existing façade do not create a load on the building and do not shade the existing façade,
- The space elements to be added define flexible uses in the space, and they should be changeable and mobile.

In the study, the qualities that should be considered in the design of additional components and items for the structures that are intended to be reused were determined. These qualities will help in making new additional design decisions in buildings that will be re-functionalized. The study guides the examination of additional space components and elements needed in the spatial setups of renovated industrial buildings. The study contributes to the literature by emphasizing the importance of the reuse of buildings, examining the additional space components and elements needed in the space setups of the renovated industrial buildings, and guiding the additional designs to be made in the reuse studies. In addition to all these space setups, it should be ensured that the new functions of the renewed industrial buildings are brought to the location of the building and to the people of the city. The contribution of these structures, which carry the traces of the past and the present together in important city locations should be considered.

Compliance with the Ethical Standard

Conflict of Interest: The authors declare that there is no conflict of interest.

Ethics Committee Permission: Ethics committee approval is not required for this study.

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