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Reuse of Historical Train Station Buildings: Examples from the World and Turkey

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Abstract

The alterations occurring in social building due to developing technology and globalism also affect architecture by resulting in the conservation, rehabilitation and reuse of the architectonic buildings. Among the buildings that will be conserved, the industrial heritage is one of the most significant conservational topics which previously had no interest but testified a great period of time. Today, the contribution of industrialization to the social life together with architecture can also be observed by the help of these buildings. Meanwhile, the railway buildings are the first industrial heritage buildings built widespread in all countries by the invention of the locomotive. The ones that are still alive today have been re-built or restored in parallel to the developing technology and continued their original functions by the help of new additions adopted on these buildings. This situation is also same for Turkey. The objective of this paper is to give information about the reuse process of the historical railway buildings by giving examples from Turkey and all over the world. In this context, the protection methods and the precautions that should be taken during the protection will be explained on these examples.

Keywords: Railway Buildings, Railway Station, Industrial Heritage, Reuse, Conservation

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Introduction

In the determination of buildings that need to be preserved, the expression of 'cultural property' which was developed by UNESCO in 1976 has become a benchmark. In 1983, this expression was also included in the Law on Conservation of Cultural and Natural Property in Turkey. Building or building groups to be protected are determined according to the aspects of their historical, architectural, archeological, aesthetic and other important characteristic features (Ahunbay 1999). In the light of these criteria, some preserved buildings either "lose their original functions" or "lose their functionality" in time. It also becomes difficult to preserve such heritages. Therefore, how should these heritages be preserved in order to resist against natural conditions for a long time? First of all, the reasons of why these buildings wear off are required to be identified. While carrying out such identification in line with below given three major issues, the worn out buildings, buildings lost their function and buildings out of use, should be preserved by reinstating them as functional with minimal modifications (Altınoluk 1998).

- Historical and cultural reasons
- Economic reasons
- Environmental reasons

Terms such as adaptive reuse, new function, reutilization are used for historic buildings that have lost its original function with changing lifestyle over the time and used for adapting to a different function instead of its original function. Buildings such as Caravanserai and *hamam* (bath) can maintain the original functions in only special cases. For this reason, these buildings can survive with a new function generally. Although buildings such as house and hotel are preserving originally function, they functionally wear out because of not providing modern comfort conditions. If they don't adapt for re-use, they will devastate by not using. In this context, adaptive reuse is a tool to save from destruction of old buildings. In article 5 of Venice Charter:

> *'The conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such use is therefore desirable but it must not change the layout or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted.'*(ICOMOS 1965)

saying expressed basic approach with reuse the buildings. In practice, this principle is generally applicable to buildings that have more historic and artistic value (Ahunbay 1999).

Preserving a cultural property by using it at the same time, will not only prolong its life cycle but will also provide financial input for any required

repair and maintenance. In line with this information, reuse of train station buildings has often been an issue on stage; while some of them have been preserved with totally new functions, some others have been partially put in new functions. Many station buildings became unserviceable either due to changed railway tracks or due to increased use of airlines and highways, or since these could not meet the requirements of emerging railroad industry, or some buildings which were constructed too large in order to meet the requirements of operation system in use when they were built, tried to be preserved with using them partially with new functions.

In this paper, we provide an assessment on how could more functional and healthier ways be provided for reuse and preservation of historical train station buildings, which was a frequently debated issue in Turkey in recent years, by giving examples from abroad and our country. In the current situation, such debates involve various views. According to some, these buildings should be immediately included in the economic and cultural spheres; whereas according to others, such industrial heritage should be preserved in their original state without any modification. Sometimes, the discussion diverges from its real meaning and significance since politics are often involved in the process.

Examples of Reused Train Station Buildings in the World

Orsay Railway Station (Orsay Museum)

The Orsay Railway Station (Gare D'Orsay) was built in Paris city center by a private railroad company, Orleans Co.. Its construction began in the late-19th Century, and it was inaugurated in July 14, 1900 along with the hotel it had been built together by the shore of The Seine within the scope of Paris Exhibition (Hasol 1989).

Following a prize competition; Victor Laloux's project, which included a balanced and mature façade with marks of the 19th Century French architecture, ranked first and implemented afterwards. This is a building which reflects the glory of that age, having a rectangular plan and steel vault, with notable eclectic masonry on the façade, and embellishments and ornamental works are used both on the façade and in the interior, and also various statues exist in the building (Picture 1).

Picture 1. *A view of Orsay Museum from Sein River (europeantrips.org)*

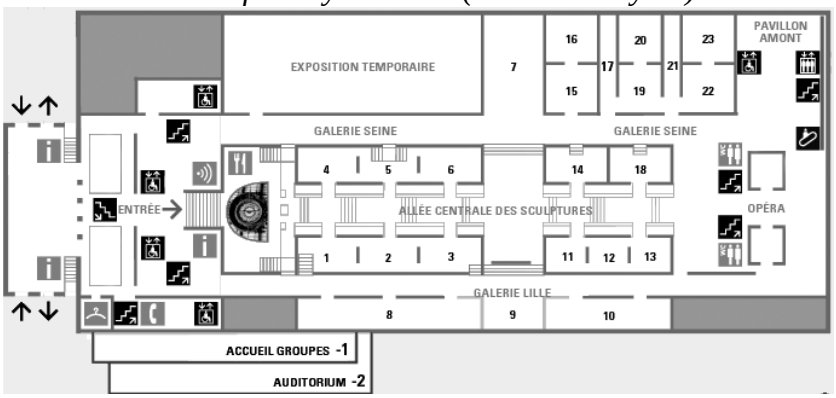
The terminal building had continued to function until 1939, but after then it started to fall short in meeting the demand. Then, it began to be used for local train services. This was followed by long years of idleness, which caused dilapidation (Hasol 1989). The building was used a mailing centre for sending packages to prisoners of war during the Second World War, then as a set for several films, in 1973 as a haven for the Renault-Barrault Theatre Company, and as an auction hall during the rebuilt of Hotel Drouot (www.musee-orsay.dr).

Although, Gare D'Orsay was decided to be sold first since it had lost its function and been left idle; citizens of Paris who became conscious and gained experienced after the issue concerning Les Halles in Paris, blocked the destruction and the building was took under preservation in 1978. Following a ten years of public discussion, it was decided to re-designate the building as a museum which would contribute to the cultural development of Paris (Hasol 1989) (Picture 2).

Picture 2. *A View of the Inner Space of Museum (Flickr.Com/Mendel)*

In the museum designed by Italian architect Gae Aulenti; new spaces were added to the main space by partitions, the roof was partially made transparent, and lateral naves were turned into an exhibition halls with double-sized height. Rooms of the hotel were added to the museum, whereas the hotel's restaurant was kept to serve for the same function. Aulenti achieved her self-set target, as she managed to create a highly-ordered, comfortable and perfectly-lit exhibition space which would guide the visitors without tiring them out and would guarantee the highest level of perception (Hasol 1989; musee-orsay.fr). This act of preservation, or in other words reuse, could not be performed flawlessly even in a country like France where preservation is a well-known operation and despite the low-interfering nature of the museum function (Hasol 1989) (Figure 1).

Figure 1. *Ground Floor of Orsay Museum (Musee-Orsay.Fr)*



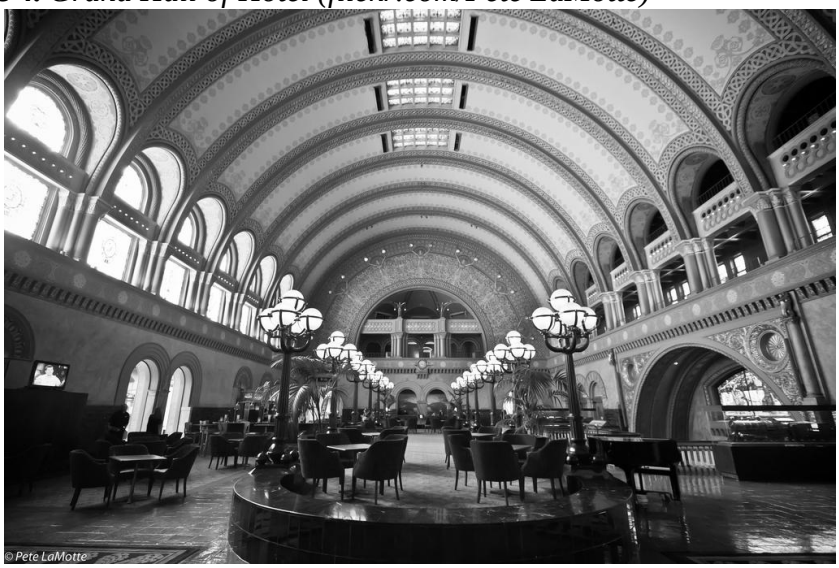
St. Louis Union Station (Hotel + Shopping Mall + Restaurants)

The Terminal Railroad Association, founded in 1889, built the biggest and most beautiful station of America, St. Louis Union Station, in 1894. This building was designed by architect Theodore C. Link, a former railroad worker, with three main sections, and a big hall with Romanesque vaults and golden leaves. This biggest train station of America, which had an eclectic Romanesque style, was accepted as a National Historic Landmark in 1976 (Picture 3). It continued to serve until 1978, but it was sold to Oppenheimer Properties in 1979. In 1985, it was put into service as the USA's most expensive reuse project (stlouisunionstation.com).

Adaptation in its new function became easier, since a part of the building was originally designed as a hotel. In 1985, the station building was renovated by a firm called Hellmuth, Obata and Kassabaum (HOK), and started to serve as a complex composed of a 550-room hotel, a shopping mall and restaurants. The biggest challenge in the entire project was tying the hotel/train shed space to the grand old headhouse, and then tying retail space into this (Picture 4).

Picture 3. *St.Louis Union Station (Hilton Hotel) (wordpress.com)*

Picture 4. *Grand Hall of Hotel (flickr.com/Pete LaMotte)*



Budapest Nyugati Railway Terminal (Mc Donald's Fast Food)

Budapest has two beautiful train stations. The most famous one of them is Nyugati (West) station. The first Hungarian train that went to Vac in 1846 passed through the current location of Nyugati Station where iron and glass were perfectly used. Nyugati was built by Gustave Eiffel, who also built the Eiffel Tower, in 1874-1877. It is both an architectural and engineering success with its huge entrance hole (146x25 m) (aviewoncities.com). The roof of the three-storey part located on the right and left of the entrance ends with two towers. On top of the entrance hole, there is a saddle roof made up of steel beams and glass, which provides a transparent and relieving space (Picture 5). Today there is Mc Donald's in the place of the historical restaurant inside the Nyugati terminal of Budapest, Hungary. This restaurant is in harmony with a well-lit, green, colorful and crowded environment. These terminals are lucky

buildings as they continue to function without facing demolition (Tümer 1991) (Picture 6).

Picture 5. *Rear Façade of Edirne Station (Yıldız, 2008)*

Picture 6. *Old Mudanya Station (Hotel Montania) (mudanya.gen.tr)*

Examples of Reused Train Station Buildings in Turkey

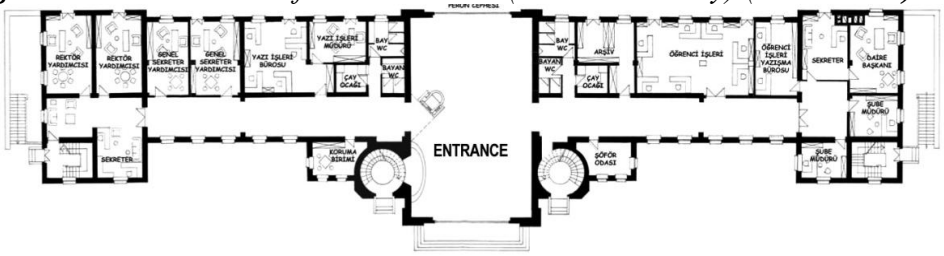
Edirne Railway Terminal (Presidency of Trakya University)

This station was built by Mimar Kemaleddin Bey, who had previously worked as an assistant to Jachmund, the architect of Sirkeci Station and influences of Sirkeci Station are visible on the building. Edirne Station which was one of artworks of national architecture period was inaugurated in 1910. It is now being used as the Presidency Building (Büyükdemir 1999) (Picture 7). The building, which has various oriels, is similar to Sirkeci Station in general. Steel beams are used in its floorings and it has a load-bearing wall system composed of bricks and ashlars. The entrance that is reminiscent of a portal is one of the most prominent parts of the building, where influences of traditional Turkish architecture are highly observed. A simple and modest masonry is visible. On the front façade of the building, there are two cylindrical towers highlighted with an onion dome. While the windows of lower floors are wider

and taller, those of upper floors are narrower and shorter. These windows are covered with straight pointy coves (Yıldız 2008) (Figure 2).

Picture 7. *Ankara Gazi Station*

Figure 2. *Ground Floor of Edirne Station (T.U. Precidency) (Yıldız 2008).*



The station building had been used until it was passed on to Edirne Academy of Engineering and Architecture in 1977. Then, Trakya University opened it to public use in 1992 as a practice hotel. In 1998, it was re-designated for presidential and additional services of the university (Büyükdemir, 1999) and put into service. Due to these changes in the function of the building, it has undergone numerous repairs. It is used today as the Presidential Building of Trakya University, and this function is suitable for monumental characteristics of the building and also a correct preference since it is a public space. It is also a positive example since this new function has been possible without necessity to make any external additions to the building.

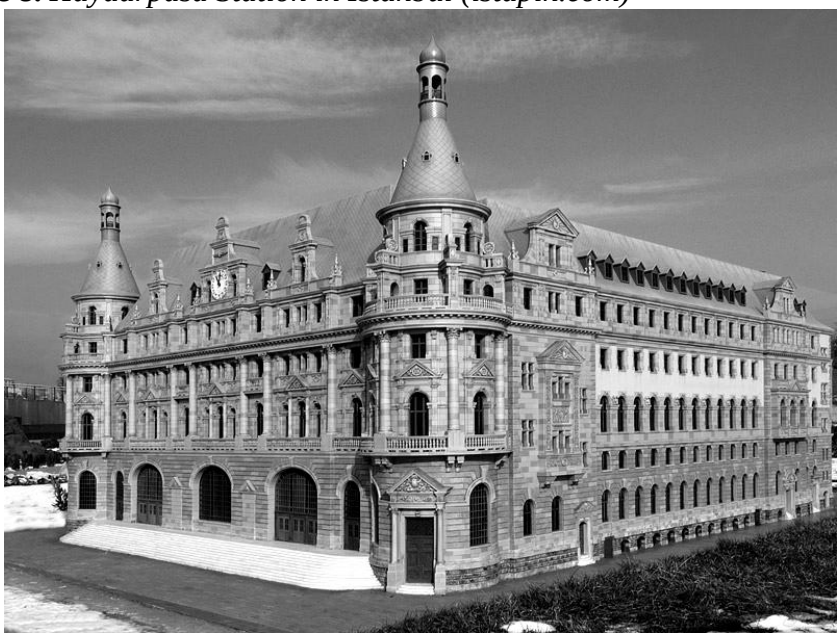
Mudanya Train Station (Hotel Montania)

Mudanya Station is more palatial than the other examples. It was originally built as the Customs Building by the French in 1849, and it became a customs building and train station in 1881 after Mudanya-Bursa Railway and station buildings were completed (Durak 2003)]. It has a rectangular and symmetrical design if we exclude the two floors structure on the right with reference to the sea. The part where the entrance exists also has got two floors. Single-floor rectangular structures and adjacent square structures are located on two sides of this section. Four rooms are located in the four corners of the entrance hall

which divides the mezzanine into two independent sections, each of which looks at different gallery spaces. The building on the left were used as the depot of the customs with its addition, whereas the center part of the building at the upper floor and the left side of the mezzanine were used by administrative units of the customs. Other sections served the station. The structure on the right served as the waiting room, the structure adjacent to the above was used as luggage place and storeroom, the right part of the mezzanine and the rooms to the right of the ground floor were used as administrative offices, ticket booth and room of the station master. The two-floor structure on the right is the administrative building of the Mudanya-Bursa line (Araz 1995).

Ground floor windows of the entrance section have obtuse vaults, whereas the mezzanine has square and upper floor windows have rectangular shapes. Windows were framed and keystones were located in the middle (Drawing 6). Similarly, the structures on two sides of the entrance and the windows of additions thereto have framed windows with obtuse vaults. Corners of the entrance building are decoratively covered with stones. The ground floor and the upper floor are divided with a wide plaster (Picture 8).

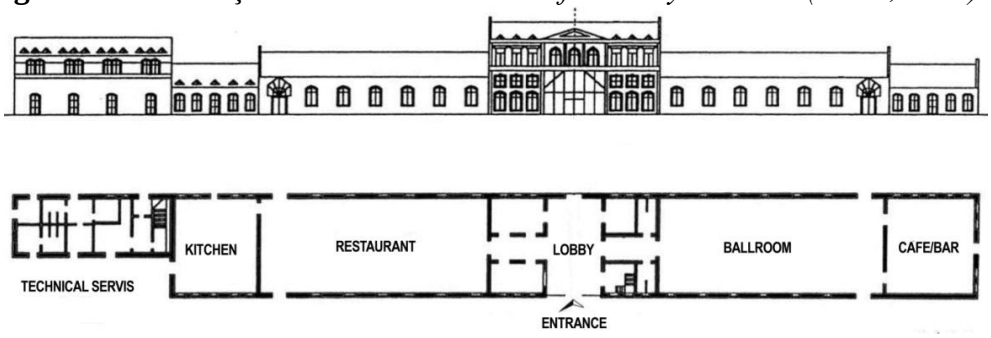
Picture 8. *Haydarpasa Station in Istanbul (istapin.com)*



The building functioned this way until train services were abolished in 1953, since they were not economic and continued to serve as the customs building for a while, and then it became the property of the local municipality. Until 1990, it had been used as a training school for the municipality. Station buildings were restored in 1990 to be used for touristic purposes (mudanya.gen.tr), and these buildings started to serve as hotels. In the renovation works, while the exterior façade was preserved, comprehensive alternations were made in its interior spaces and building system. The semi-open passage in the middle was covered with glassware during the restoration

works, and the ground floor of the building was designated for hotel lobby and administrative units, whereas upper floors were designed as hotel rooms. Buildings that were used as storehouses became ballroom and restaurant, while their additional buildings adjacent to them were designed as cafes, bars and kitchens. The two-floor lodging located at the far end of these buildings was rearranged as technical service units and bedrooms (Yıldız, 2008) (Figure 3).

Figure 3. *Front Façade and Ground Floor of Mudanya Station (Yıldız, 2008)*

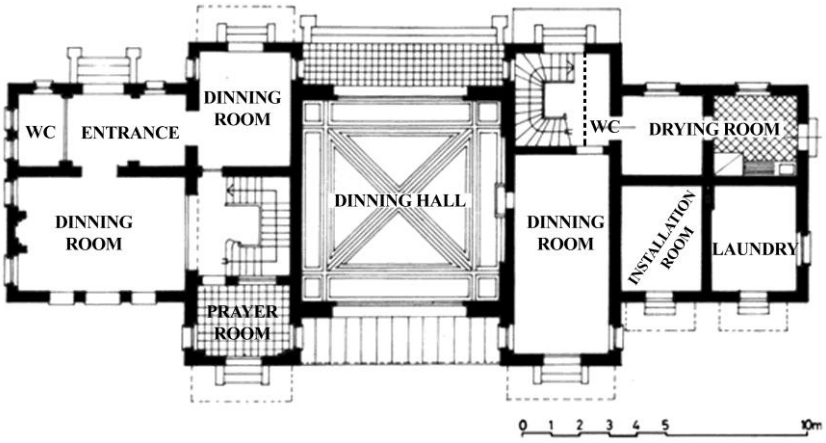


Ankara Gazi Station Building (Restaurant)

Gazi Station, which is located within the Atatürk Forest Farm in Ankara, was designed in 1926 by the Architect Ahmet Burhanettin. It is one of the first monumental station buildings of the 1st National Architecture Period (Sobutay, 1996). The building was planned symmetrically and with a rectangular design, the longer side is parallel to the rail line. The entrance hall, located in the middle of the main building, has a square design with a single floor. On both sides of the hall, two-storey narrow buildings that were used as lodging are located. Alongside these buildings, there are single-floor buildings built as waiting rooms and other spaces serving for other functions. The upper parts of wide door openings at both facades of the entrance hall, are covered with pointy vaults, and small windows at such gaps provide adequate amount of light for the hall. Hipped roofs with wide eaves cover the buildings that constitute the building, and eaves supported by buttresses are put on entrance parts (Picture 9).

Since small booths became able to provide the required service as the station is located on a suburban line, functions of the station building were rearranged in the 2000s. Then, the building began to function as a restaurant, which is not a suitable function for its historical and monumental character. On the ground floor, spaces were arranged for dining halls, prayer rooms, laundry and toilets; whereas its first floor, which was used to be the lodging part, was designated for accounting and administrative units. Kitchen and preparation units were designed in the courtyard of the building with a building built in harmony with the environment. Thus, the building was given a new function without making significant alterations in its interior spaces. Additionally, the restaurant-cafe section built in the courtyard by using old railcars minimized the circulation intensity of the building and a unity was achieved with its original function (Yıldız 2008) (Figure 4).

Figure 4. *Gazi Station Gorund floor (Yıldız 2008)*



Conclusion

Preservation and maintenance of cultural values and architectural heritage is of importance for bringing up generations who are aware of their cultural and historical values. It is an obligation for us to preserve and carry these buildings which are living sources of our past, to the future. In this respect, station buildings are worthy of preservation in terms of raising historical consciousness since they are living witnesses of the past, they hold historical document features, and thus they serve as resources for future generations. Besides, they also deserve to be documented and preserved with respect to their landmark locations in their environment, they carry symbolic values, they have created urban spaces around themselves, and they have created their own architectural styles.

Such buildings have accumulated symbolic values during long periods they have existed and they carry the marks of such periods. These buildings, which remained in the background until recently, started to receive the appreciation they deserve as a part of the efforts spent to preserve industrial buildings. They constitute the most accurate and reliable source of information thanks to the political, social, cultural and architectural characteristics of the 19th Century that they carry.

Industrial buildings have long been excluded from architectural history and preservation as they have been regarded as shelters aiming to protect the machines they contain from external conditions. However, since their functions required wide openings, these buildings are the first experimental engineering works executed since Industrial Revolution with the newest technology of the time. In parallel with advanced technological conditions since the 19th Century, most of them have lost their functions and deserted. For these reasons, it is a cultural duty to preserve industrial buildings, which are products of important breakthroughs in construction technologies and styles, and to carry them into the future.

It is necessary for our historical station buildings to keep up with changing times and to adapt to rapidly changing and growing cities and urban life. A more comprehensive study should be carried out on historical station buildings, and by forming a model, these buildings should be reused in ways that will not contradict with their building purposes as well as their architectural and design features. Examples given in this paper and other examples should be investigated in detail. In addition, it should be offered more suitable models for historical station buildings that considered reuse.

In recent years, intensive discussions have carried out especially about Haydarpasa station in Turkey. The thought of political authority is to convert station to the hotel was opposed by the Chamber of Architects and professional associations. We can say that the chambers are in the correct stance in this discussion when we look at the examples examined. As can be seen in the examples in this paper, either the station completed its mission or needed a new function because of not providing requirements. However, Haydarpaşa station is perfectly continuing its existence functionally, monumentally and aesthetically. it can be said that only a partial restoration is needed, not functional transformation (Picture 8).

For all these reasons, our almost-extinct railway heritage should be carefully preserved and carried to future generations. Railway heritage should not be only limited with station buildings or locomotives; but lodgings, workshop buildings, and engineering works such as bridges, signalization towers and water tanks should also be addressed in this framework. First of all detailed measurement and survey studies should be carried out for these buildings in order to define these buildings and detailed researches should be conducted on the history of terminals and buildings; and in light of these data, intervention proposals for preservation/restoration purposes should be prepared. It is clear that such interventions will not be enough to preserve these buildings. Since a continuous maintenance will make it possible for the continuance of their healthy existence, especially abandoned buildings should be put into reuse with appropriate functions. In the reuse proposal, functions that can be performed with minimum intervention should be preferred and these interventions should allow for future undoing.

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