

Chapter 01 | Session A2

Refunctioning Abandoned Industrial Plants For Public Purpose: A Reuse Proposal For Paşabahçe Glass Factory

Ahmet Gün | Istanbul Technical University, Istanbul, Turkey
ahmetgun@itu.edu.tr

Nuran Zeren Gülersoy | Istanbul Technical University, Istanbul, Turkey
gulersoy@itu.edu.tr

Keywords: coastal areas; industrial plant; industrial heritage; Paşabahçe Glass Factory

Abstract

The majority of industrial plants that were once located in urban centers and coastal areas were demolished and used for the purposes of new city regulations. This situation has attracted great attention from society; therefore, industrial heritage and industrial archeology became important concepts since 1970s. In developed countries such as the UK, Germany and the USA, many significant projects which aimed to protect industrial areas and reuse them, have been carried out for a long period of time. In Turkey, the concepts of industrial heritage and industrial archeology gained in 1990s; thus, some industrial areas were already rehabilitated and reused over the course of the years.

Paşabahçe Glass Factory is one of these industrial areas that were left inert. The factory is among the industrial areas that were established by the state during the Republican period. The factory increased its production capacity until 1980s. After 1980s, the production facilities of the factory were relocated to different locations, and thus, the closure period began for the factory. The factory terminated its production activities in 2002, and its site has been left idle until today. At the moment, Paşabahçe Glass Factory is used as a warehouse, and there are numerous physical problems in the factory buildings. In addition to the physical problems observed in the factory buildings, people who live in the vicinity of the factory also faced social problems. There is an urgent need for a holistic protection approach for the factory.

This study proposes a project to make use of the Paşabahçe Glass Factory. so as to protect and improve its natural and cultural value. First of all, the natural and physical value of Paşabahçe Glass Factory are analyzed by means of a field study and a comprehensive

literature review. The current social image of Paşabahçe Glass Factory is analyzed through questionnaires with the residents of Paşabahçe neighborhood and through interviews with the workers who once were employed at Paşabahçe Glass Factory. Following the identification of the physical and social values and problems, some recommendations for the reuse of the Paşabahçe Glass Factory are proposed. The industrial identity of the area, the demands of the residents, social and economical structure of the area were considered when the functions for reuse were specified.

1. Introduction

There were many changes realized in cities and manufacturing systems with the industrial revolution since the 19th Century. Machines started to be essential factors of production and moreover, in developed countries, there were many migration movements realized from rural areas to the cities. Many industrial cities like Manchester came into existence in such countries (Thorns, 2004). In this period, Istanbul was also preferred one of the attraction points for industrial plants because of relevant factors such as location, transportation opportunities, human resources, etc.

By the middle of the 20th century, a service-based economy has been observed and education, culture and knowledge-based developments begun to emerge. Industrial plants that located in urban centers and coastal areas moved to different fields because of the format changes in the production type and the effects of the cheap labor during this period (Perevozchikova, 2001). In this context, industrial facilities that are located in urban centers and particularly coastal areas became dysfunctional and the fact of re-use these areas began to grow (Atagök, 2000).

Studies about the conserving industrial zones

have been carried out in countries, which have completed their industrial developments such as West European countries, for a long time. The coverage area of industrial is defined from the TICCIH (The International Committee for the Conservation of the Industrial Heritage) as:

“Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as areas used for social activities related to industry such as housing, religious worship or education”. (Nizhny Tagil Charter, 2003)

Industrial archeology concept emerged for the first time in the 1950s. This concept was revealed in “Amateur Historian” essay, which is written by Michael Rix, in England (Rix, 1955). Rix (1967) defined this concept in 1967 as “choose Revolution”. Green (1975) describes the research interests of industrial archeology as “the industrial archeologist is concerned with recording and studying early industrial remains, especially those of the eighteenth and nineteenth centuries that have not hitherto been the subject of field study”. The meanings of industrial heritage and industrial archeology concepts are sometimes confusable. Industrial heritage concept contains the all of the tangible and intangible values of industry, whereas industrial archeology concept is related to recording and studying of these structures.

Some institutions such as TICCIH, ERIH (European Route of Industrial Heritage) and DOCOMOMO (Documentation and Conservation of Buildings, Sites, and Neighbourhoods of the Modern Movement) have carried out studies to conserve industrial area since the 1970s. TICCIH aims to promote international cooperation in preserving, conserving, investigating, documenting, researching, interpreting and advancing the education of industrial heritage. This field focuses on the remains of industry-industrial sites, structures, and infrastructure, machinery and equipment, housing, settlements, landscapes, product, processes, embedded knowledge and skills documents and records, as well as the use and treatment of this heritage in the present. TICCIH collaborates with other organizations to conserve industrial heritage (Url-1).

DOCOMOMO focuses on saving of important modern movement buildings. It aims to exchange ideas relating to conservation technology history and education. Although the first aim of DOCOMOMO is not conserving industrial areas, its studies contain the industrial heritage of 20th century (Url-2). Many industrial areas have been saved and reused for a public purpose by the help of these organizations and policy of local & central governments. The studies about saving and reusing of industrial areas started in Turkey in the 1990s, and many abandoned industrial zones have been functioned for a public purpose. There are successful functioning implementations have realized in Turkey such as the transformations of Sumerbank Cotton Mill to Abdullah Gül University; Seka Paper Mill to Sekapark; Silahtaraga Power Plant to Santral Istanbul.

Paşabahçe Glass Factory is one of the symbols of the Turkish Republic period. This area has some important features regarding Turkish glass sector and collective memory of the community. After ceased the production of the factory, any study about conserving and reusing this area haven't been realized until now. In this study, it is proposed a reusing project for Paşabahçe Glass Factory to protect and sustain its natural and cultural values.

2. Refunctioning Examples of Abandoned Industrial Plants

Many abandoned industrial plants have been conserved and reused in Europe and Turkey until now. In this context, transformation processes of Van Nelle Factory and Seka Paper Mill, which have similar characteristics with Paşabahçe Glass Factory, are analyzed.

Van Nelle Fabriek – Van Nelle Design Factory

Van Nelle Fabriek was designed and built in the 1920s on the banks of the Canal in Spaanse Polder Industrial Zone, which is located in the North-west of Rotterdam, to produce tobacco, tea, and coffee (Url-4). Some manufacturing units were added in 1951 and exhibition center was added to this factory complex. This plant was listed as the national monument after it had been taken over by American Standard Brand (Url-6). It was sold to the American Standard Brand to generate economic infrastructure so that transformation process could be realized. In this

regard, some studies were done for reusing factory. The first stage of these studies was to transform tobacco, coffee, and tea manufacturing buildings and then other buildings were converted into office and production units (Figure 1). The transformation process was aimed to comply with the service-based era. In this context, factory buildings were used with new functions that are related to graphic design, new media, communication, design and architecture (de Jonge, 2002).

Fig 1. Offices of the Van Nelle Design Factory (De Jonge, 2002).



Van Nelle Factory was proposed to World Heritage List by Ministry of Education, Culture and Science in 2011. The importance of this factory was defined in Nomination List as “icon of Holland modern movement and the first daylight factory of Europe” (Url-4). Factory buildings transformed with minimum intervention and they were reused with new functions that enable factory buildings to keep up with a new era, so transformation process of Van Nelle Factory is evaluated as a model for other industrial areas (Gün, 2014).

Seka Paper Mill – Sekapark

Seka Paper Mill is located on Kocaeli, and it was established to supply paper demands of Turkey in 1936 (Figure 3). By the middle of the 1980s, the production was begun to decrease because private sector started to be a key actor in the national paper industry. Thus, the facilities of factory reduced day by day and it was closed in 2004. The area of the factory was abalienated to Kocaeli Metropolitan Municipality. After that, municipality started the process of Sekapark Industrial Transformation Project (Oguz et al., 2010).

Sekapark Project has planned to realize in three stage

because of the ownership situation. The first phase of the project located on 520 decares, 300 decades were organized as the green area, and 220 decades of it were classified as social activities. 12 different game areas such as the artificial climbing wall, skateboard park, soccer field, basketball court and tennis court were constructed in this area (Figure 2). Moreover, ten km-long bicycle roads and 2 km long pedestrian streets were organized to experience natural and architectural object that are situated in the park area. Coastal recreation, water and entertaining games area and concert area were constructed in this stage.

The second stage of the project was planned to realize on 90 decares. Coastal area was generated by forming sea embankment (Kocaeli Büyükşehir Belediyesi, 2010). Old industrial buildings were functioned as Seka Paper Museum, visual arts center, industrial design galleries, art studios, education center, restaurants, concert hall, fitness center, bookstalls, gift shop, etc. (Oguz et al., 2010).

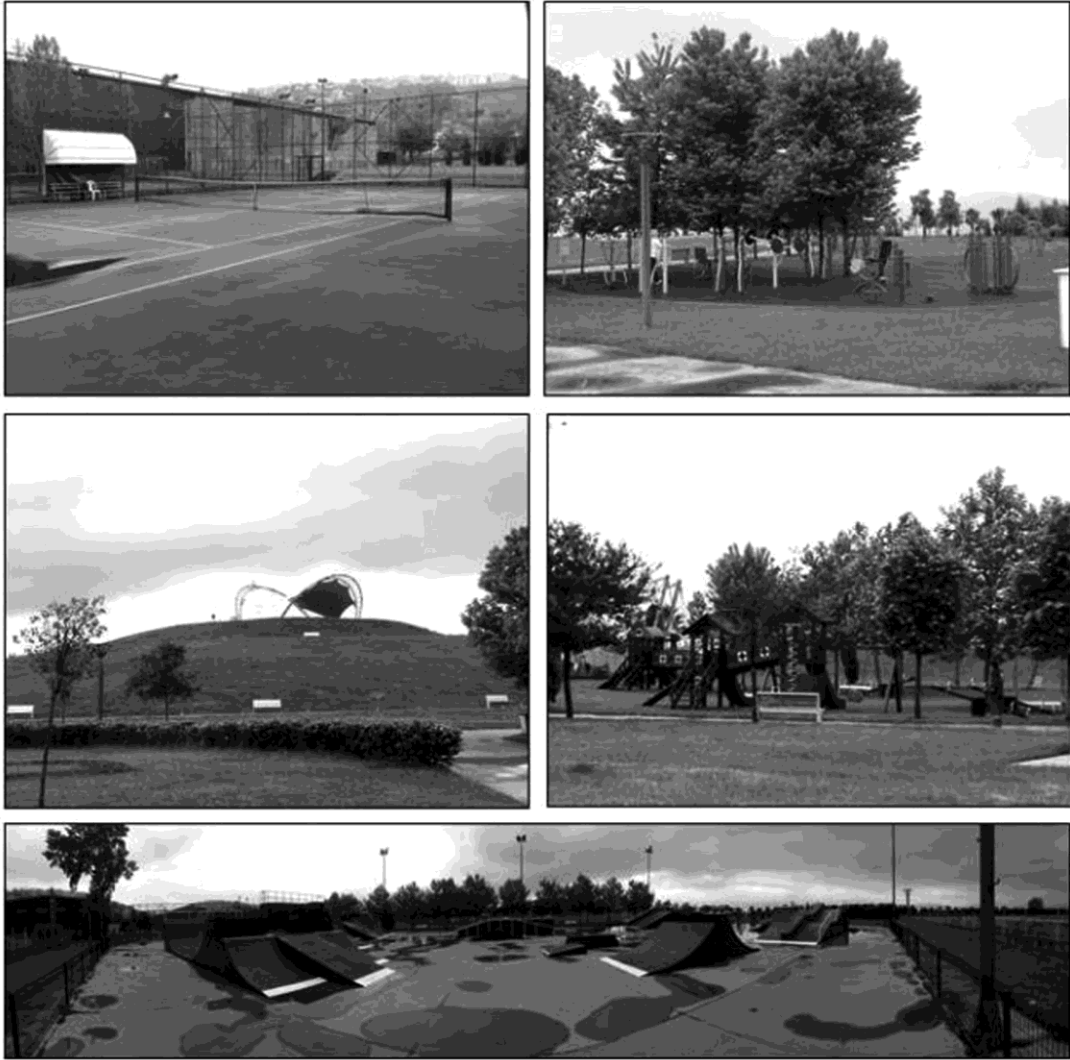
Sekapark Project should be assessed separately because it has realized in different stages. In the first phase of the project, the motorway was added to the current network to generate the alternative route for accessing this area, so transportation problem was solved. When the factory was used, rail line caused a mainland-sea connection problem. This problem was solved by constructing two pedestrian bridge over the current rail lines. On the other hand, the second stage of Project provides many activities for the public purpose, and the old industrial buildings functioned with minimum intervention. Moreover, Project area contains some units that attribute to the original function of factory such as Paper Museum and Industrial design center.

3. Paşabahçe Glass Factory

Spatial and Functional Context

Paşabahçe Glass Factory established in the direction of the First Five Years Industrial Plan in 1934 (Çakmakçı, 1989). This factory is located on Beykoz, Istanbul. The raw material for producing glass extracted from Yalıköy, which is a neighborhood of Beykoz, so this factor played a significant role in site selection of factory (Figure 3). Production activities started to realize in 1935 and tea glass, water bottles, small medicine bottles, and gallons were produced firstly

Fig 2. Playgrounds of Sekapark (Ahmet Gün Archive, 2014).



(Küçükerman, 1998). The factory had an important position in Turkey economy from the establishment to the final period. The company made production for supplying domestic demand until the 1960s then it began to export some productions. New factories that have the same brand were established in different areas because plant improved production day by day (Küçükerman, 1998).

Factory ramped up its production until the 1980s but after this time it entered into the process of closing

by the effect of Bogaziçi Law and the other factors. According to Bogaziçi Law, coastal areas are allowed to use only for the public purpose and establishment of industrial zones and Docklands is banned (Resmî Gazete, 1983). Thus, manufacturing of factory was transferred to different areas gradually in the 1990s and production was ceased in 2002 (Şişecam Faaliyet Raporu, 2002). Factory has been abandoned for this time, and some buildings are used as store nowadays. Many buildings have begun to decay, roofs have collapsed, glasses have broken (Figure 4).

Fig 3.The Location of Paşabahçe Glass Factory(Url-7)



Social Context of Factory

Paşabahçe Glass Factory is one of the important symbols of Turkey industrialization, and it has an important place in collective memory of the community. In this context, questionnaires were conducted with 103 people who reside in Paşabahçe and Incirköy neighborhoods and interviews were done with 13 workers who had worked in the factory before the final period. The results of questionnaires and interviews are taken into consideration in the formation of the proposal.

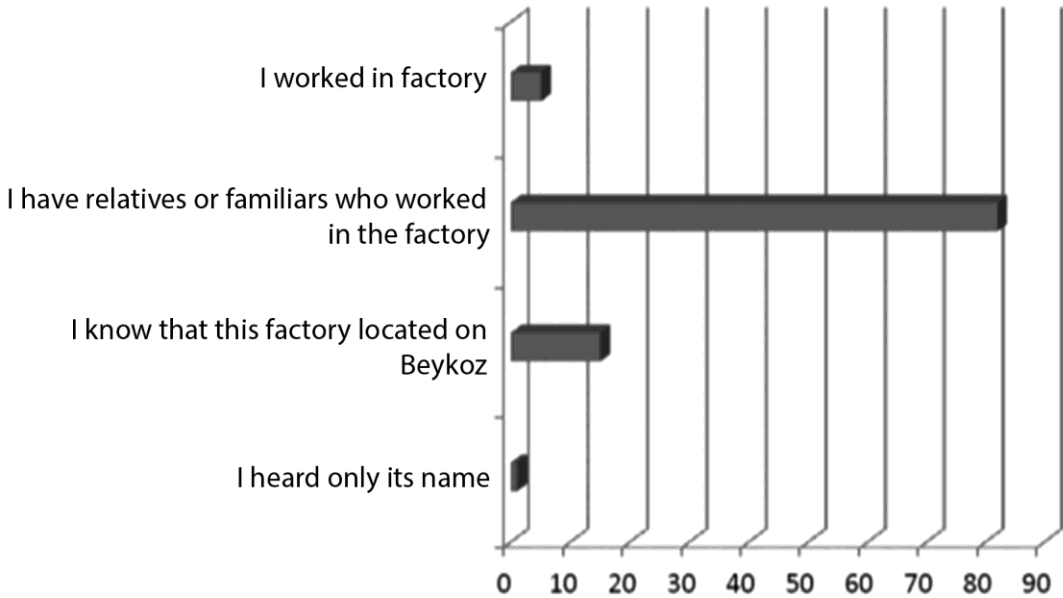
Fig 4. Physical conditions of the factory (Gün,A., 2014)



Relation to factory: Using of abandoned industrial areas in new city regulations got a reaction from the community because people have direct or indirect ties with these areas. Paşabahçe Glass Factory is also at the back of locals' mind because of some reasons. According to questionnaire results, 5% of

respondents stated that they worked in the factory, 80% of respondents indicated that they have relatives or familiars who worked in the plant (Figure 5). These figures clearly show that this plant has an important place in the locals' collective memory.

Fig 5. Relation to factory



The image of the Paşabahçe: Living spaces are represented with some images and values in the eyes of the public. People define these areas according to their experiences and social&physical parameters of areas. 37% of respondents describe Paşabahçe as “retired-person neighborhood” because many people cannot get a suitable job for them and this neighborhood does not have enough potential for young people regarding social and economic opportunities. 27% of respondents define Paşabahçe as “coastal neighborhood” by referring to relations with Bosphorus. 16% of respondents describe Paşabahçe as “historical district” because of historical recreation areas and old industrial plants which are located in Paşabahçe. 20% of them select the “other” option (Figure 6).

Paşabahçe Public Hospital, Sultaniye Recreation Area, Paşabahçe Square, Paşabahçe Pier are some focal points that are located around of the factory. Although

these areas are used by people nowadays, 71% of respondents stated that the first image of Paşabahçe neighborhood is Paşabahçe Glass Factory (Figure 7).

Paşabahçe Glass Factory is important for old workers regarding social and economic values. One of the workers said that handmade glass production that realized in this factory is invaluable but the production of handmade glasses in danger of ending nowadays (Sait Karacaoglu, personal interview). Other worker emphasized the social importance of the company and said that circumcision feasts and sheep festivals were organized in the neighborhood where workers and locals could attend and famous artists performed in these activities. Şükri Bircan, who had worked in handmade production departments for 20 years, stated that nearly 50.000 people earned their keep from this factory and decoration workplaces that were located around the facility.

Fig 6.The representation of Paşabahçe

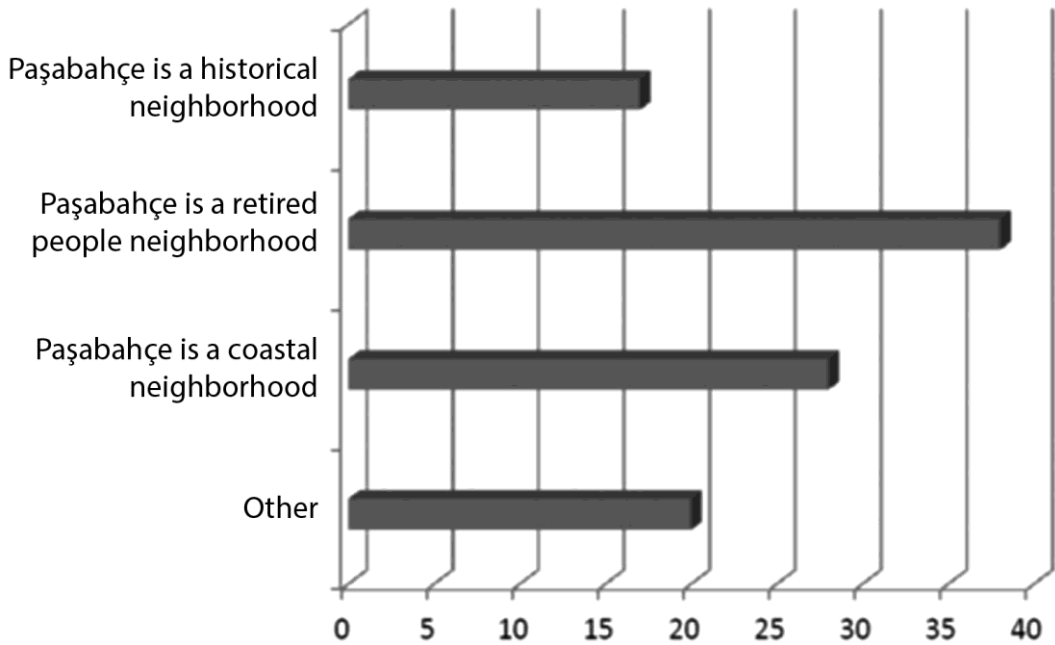
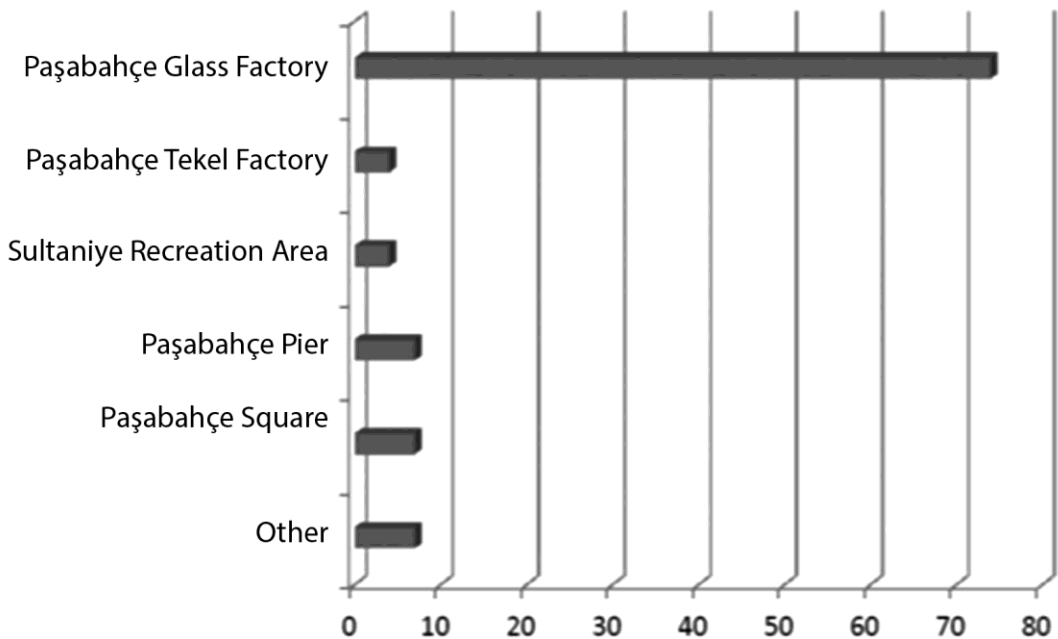


Fig 7.The image of Paşabahçe

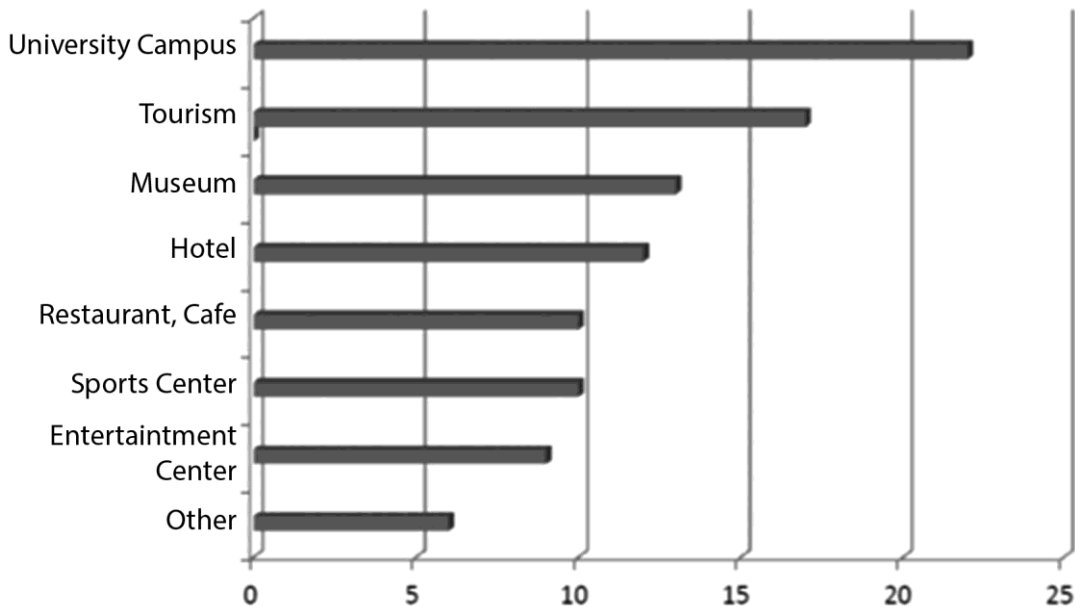


Suggestions and opinions about functioning of factory:

Respondents mainly selected economy based functions for reusing proposal by referring to adverse economic conditions of the neighborhood. Respondents were enabled to select multiple choices for the functioning of the factory, so 103 respondents select 327 options. 22% of these choices is that this area should be used as a university campus. Respondents stated

that if this area is reused as a university campus, this neighborhood, which is in the poor condition regarding educational level, will be developed, and there won't be any intervention to locals' current living conditions. 17% of respondents selected "tourism", 12% of respondents selected "hotel", 10% of respondents selected "restaurant-cafe", 10% of respondents selected "sports center" and 7% of respondents selected "other" option (Figure 8).

Fig 8. Suggested functions for reusing proposal



Respondents selected "tourism" option so that potentials of this area can be introduced and Beykoz Glassworks can be sustained. Thus, economic sustainability can be provided, and locals do not migrate elsewhere to get a job. They selected "museum" option because of the same reasons. Respondents who chose "hotel" option explained that if this area functioned as a hotel, many young people, who reside in this neighborhood, might find a job in certain work areas.

One of the respondents who worked in the factory said that small-scale production is required to be realized in this area for conserving Paşabahçe brand so tourists might come to this area to buy handmade glasses. Therefore, locals can get a job and neighborhood

might develop economically. Another retired worker stated that coastal area of the factory was used as some functions by people such as beach, club, but this area is not used for public purpose nowadays so integration with the coastal zone should be considered as the critical factor for reusing of this area (Sezgin Sayın, personal interview).

4. A Reuse Proposal for Paşabahçe Glass Factory

Paşabahçe Glass Factory has important values regarding being one of the most important factories of Turkey and brand value. This facility is evaluated as the most representative image of the neighborhood

in questionnaires and interviews. Factory buildings have abandoned, so this situation reflects the locals negatively regarding physical and economic conditions. Abandoned industrial buildings have been reused according to the requirement of public in Europe and Turkey for many years. In this context, this area should be used as glass themed and cultural functions by taking into consideration high brand value. Thus, historical and industrial identity can be conserved and sustained. Reuse proposal is determined by the questionnaires&interviews and reuse examples of industrial areas.

University Campus: There is four universities locate in Beykoz, and this number is predicted to increase so this county has recently seen as “university town”. Many students have education in Beykoz, so the image of this area has begun to change. On the other hand, some abandoned industrial zones have been reused as education based functions for many years, and there are some successful examples in Turkey. Thus, some buildings of this area should be used as a university campus. If this field is used as a university campus, the student can access here from the other areas by ferry.

Glass Museum: The history of Anatolian Glassworks dates back to 3.500 years. Besides, Beykoz has 200 years glasswork tradition, and this tradition ended with the closing of the factory (Küçükerman, 2002). Even if there are some museum about glass art in Turkey, these institutions focus on specific production and the stages of the Anatolian Glassworks are not be exhibited inclusively at these museums. Thus, some buildings of Paşabahçe Glass Factory should be used as the museum where the all of the Anatolian Glassworks, which were produced at different times, are exhibited. Glass studios and glass training units: Handmade glasses had been produced before the factory were closed. Beykoz District Governorship has recently planned to train 100 people about glasswork. Moreover, Beykoz Municipality has trained locals and organized a lot of some activities for sustaining this tradition (Anon., Beykoz Kültür Sanat Dergisi, 2013). On the other hand, many glasswork masters accommodate around the factory area. In this regard, glass studios and glass training units should be established in the area so masters can produce handmade glasses and transfer their knowledge about this art to the young generation.

Accommodation Units: There are six dwelling-house that locate in the factory area, and these buildings have not been used nowadays. If there will be some touristic functions like a museum, some people want to stay the night around the factory area. In this context, vacant dwelling houses should be used as accommodation units.

Restaurant-Cafe-Shopping Units: There are small trade units in the neighborhood. If this area is functioned as glass museum, glass studios, glass training units, university campus, there will be in need of commercial developments. In this regard, some buildings should be used as the restaurant, cafe, and shopping units. Therefore, people eat and drink traditional foods that are prepared by locals. On the other hand, tourists want to buy souvenirs that are related to the neighborhood. Murano Island is one of the most favorite places regarding glassworks. Thousands of tourist visit this island and buy glass-themed souvenir every year. Paşabahçe Glass Factory and its surrounding area have the same potential with the Murano Island. In this context, handmade products should be produced in glass studios by local masters, and they should be sold to the tourists. Thus, Beykoz Glasswork tradition might be sustained, and locals might get economic income.

5. Conclusion

Industrial plants have been affected by the changes of manufacturing type for many years. While some of these plants turned production group to keep up with new developments, other plants' manufacturing were moved to other region and the others were closed. Inactive industrial facilities were demolished or used for the new city regulations; this condition got a reaction from the community so “industrial heritage” and “industrial archeology” concepts were formed to conserve these areas. Particularly in developed countries, abandoned industrial areas have been reused by the community with the help of local governments and some institutions which are related to industrial heritage since the 1970s. Besides, many industrial plants have been reused as the museum, cultural center, university in Turkey since the 1990s.

Paşabahçe Glass Factory was one of the most industrial plants of Turkey, and it is used as store nowadays. Any study about conserving and reusing of this area have

not been done up to now. Paşabahçe Glass Factory is in danger of some adverse factors such as new city regulations, profit press, and physical deformation. Therefore, this area should be considered as industrial heritage, and it should be reused for this purpose. In this context, the importance of Turkish glass sector, collective memory, and economic factors should be taken into consideration in this process. In this study, some functioning proposals towards the reusing of this industrial area are suggested. It is recommended that this field should be reused as glass themed and cultural functions.

In this context; it is suggested to have functions such as the glasswork museum that tell the glassier story of the Anatolia including Turkish Republic, Glass Workshops to continue 200-year long handmade glass tradition in Beykoz, Glass Training Units are proposed so that this tradition can be transferred to the next generations. Moreover, an Education Complex due to recently increasing education complexes and potential young population, accommodation units to visitors to stay, shopping units where visitors can buy glassware products that are produced in Paşabahçe and also restaurants, cafes, which locals and visitors can use are suggested in this area. It is determined in this study that physical and social values of Paşabahçe Glass Factory can be conserved and sustained.

References

- Anon., “Cam ve Beykoz Camı”, Beykoz Kültür Sanat 4 (2013): 67-69.
- Atagök, T., “Sanayi Mekanlarından Sanat Mekanlarına”, Mimarlık 292 (2000):7-8.
- Çakmakçı, A. (1989). “Ülkemizin Sanayi Yapısı ve Sanayileşme Stratejileri”, İstanbul: İTÜ İşletme Fakültesi, 1989.
- De Jonge, W., “Üründen Sürece: Rotterdam’daki Van Nelle Fabrikaları’nın Yeniden Canlandırılması”, Mimarlık 308(2002): 44-48, İstanbul.
- Green, E. R. R. The Industrial Archaeology of County Down, Her Majesty’s Stationery Office, Belfast.
- Gün, A. (2014). “Kıyılarda yer alan eski endüstri alanlarının değerlendirilmesi: Paşabahçe Cam Fabrikası İçin Yeniden Kullanım Önerisi”, MSc Thesis, I.T.Ü Graduate School of Science, Engineering and Technology, İstanbul.
- Kocaeli Büyükşehir Belediyesi Fen İşleri Daire Başkanlığı, “Sekapark I. Etap Sunumu”, accessed: 25.02.2010, Kocaeli.
- Küçükerman, Ö. (1998). stanbul’da 500 Yıllık Sanayi Yarışı Türk Cam Sanayi ve Şişecam, Türkiye Şişe ve Cam Fabrikaları A. Ş., İstanbul.
- Oguz, D., Saygı, H., Akpınar N. (2010). Kentiçi Endüstri Alanlarının Dönüşümüne Bir Model: İzmit/Sekapark, Coğrafi Bilimler Dergisi, Cilt:8, Sayı:2, Sf. 157-167. accessed: 29.03.2014, Url: http://dergiler.ankara.edu.tr/detail.php?id=33&sayi_id=1524
- Perevozchikova, N. N. (2001). Postindustrial Society: From Labor to Creative Work, Modern Techniques and Technology,. Proceedings of the 7th International Scientific and Practical Conference of Students, Post-graduates and Young Scientists, pg.194-195. accessed: 05.03.2014, Url: <http://0-ieeeexplore.ieee.org/divit.library.itu.edu.tr/>
- Raistrick, A, “Industrial Archaeology”. London: The Chaucer Press: 1955.
- Resmi Gazete (1983). Bogaziçi Kanunu, accessed: 08.03.2014, Url: <http://www.mevzuat.gov.tr/MevzuatMetin/1.5.2960.pdf>
- Rix, M. . Industrial Archaeology. The Amateur Historian 2(8)(1955): 225-229.
- Saygı, H. (2008). Kent İçi Endüstri Alanlarının Dönüşümüne Bir Model: İzmit Sekapark, MSc Thesis, A. Ü. Institute of Science, Ankara.
- The Nizhny Tagil Charter For The Industrial Heritage (2003). accessed: 23.03.2014, Url: <http://ticcih.org/about/charter/>
- Thorns, D.C. “Kentlerin Dönüşümü”, (İstanbul: Soyak Yayınları, 2004).
- Türkiye Şişe ve Cam Fabrikaları A. Ş., Yıllık Faaliyet Raporları, Date: 13.04.2014, Url: <http://www.sisecam.com.tr/tr/yatirimci-iliskileri/yillik-faaliyet-raporlari/onceki-yillara-ait-faaliyet-raporlari/>
- Url-1 < <http://ticcih.org> >, accessed: 24.03.2014.
- Url-2 < <http://www.docomomo.com/> >, accessed: 25.03.2014.
- Url-3 < <http://www.erih.net/> >, accessed: 24.03.2014.
- Url-4 < <http://whc.unesco.org/en/tentativelists/5635/> >, accessed: 03.04.2014.
- Url-5 < www.skyscrapercity.com >, accessed: 03.04.2014.
- Url-6 < <http://www.architectuurinrotterdam.nl/home.php> >, accessed: 03.04.2014.
- Url-7 < <http://sehirrehberi.ibb.gov.tr/map.aspx> >, accessed: 28.03.2014.
- Yıldız, N. (2002). Paşabahçe Artık Yok, İşçi Mücadelesi, Sayı 4, accessed: 13.04.2014, Url: <http://www.iscimucadelesi.net/arsiv/dergi/dort/pbah.htm>