

RE-USE OF INDUSTRIAL HERITAGE AS A TOOL OF CONSERVATING URBAN MEMORY: TİRİLYE OLIVE OIL FACTORY^{7*}

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ABSTRACT

Tirilye is a coastal settlement located in the west of Mudanya in Bursa, Turkey. Tirilye has been a hometown for Roman, Ottoman and Turkish people through centuries. Tirilye has a peaceful multicultural and multi-religious history with its churches, monasteries, a mosque, a hammam and traditional houses.

There is an olive oil factory campus which built from 19th century to 1950s, embodies the technical equipment used in the olive oil production process that can be evaluated as an industrial heritage. Beside architectural context, industrial heritage also has a social and cultural way of understanding urban life. It is connected to human life directly, a work place and living place for citizens.

This factory represents the development of olive oil production techniques and is a collective heritage of olive culture of Mediterranean people. Re-use of this factory can contribute to not only conservation of industrial heritage but also conservation of Mediterranean olive culture and urban memory of Tirilye.

In this paper, the history and documentation of factory, definition as an industrial heritage, understanding the value, recommends for promotion and conservation studied in the context of preserving urban memory.

Keywords: Bursa, Tirilye, industrial heritage, urban memory, olive oil factory.

1. INTRODUCTION

Architectural features represent the social, cultural and economic relationships in a city by being a part of daily life. They are documents of local history and have a significant role on creation and sustaining of urban memory. Buildings are categorized by their roles in urban memory as landmarks, buildings of a memory, buildings of witness and building of a time period (Madran 2001).

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*This paper was based on the author's master thesis that prepared in Uludağ University, Department of Architecture in 2015 and supervised by Assoc. Prof. Özlem Köprülü Bağbancı. The images and figures in the text are taken from the thesis.

Lynch (2014) says “*an environmental image may be analyzed into three components: identity, structure, and meaning*”. The architectural type and characteristic high chimneys of industrial buildings become a part of city image. Industrial heritage building create new meanings for workers and citizens. The working conditions and social life define cultural identity.

According to the Venice Charter (1964), “*a monument is inseparable from the history to which it bears witness and from the setting in which it occurs*”. Every building creates its own mean for citizens and provides a new mean for its environment. Also, the environment influence the meaning of the buildings.

Buildings and socio-cultural values are tangible and intangible aspects of historic cities and must be considered in heritage conservation. Collective memory is one of the social and cultural dimensions of sustainability, so can be used as a driver of sustainable conservation in historic cities (Ardakania and Oloonabadi 2011).

Natural environment, artificial environment, socio-economic and socio-cultural characteristics are the components of urban identity (Beyhan and Ünügür 2005). Urban memory is a collective memory that comprised of experiences of citizens in historic and social environment of urban spaces. Industrial buildings and landscapes are the spatial traces of collective life experience, traditions, habits and knowledge of citizens. Preservation and improvement of industrial heritage provide continuance of collective memory for generations (Elhan 2009).

The International Committee for the Conservation of the Industrial Heritage (TICCIH) published *The Nizhny Tagil Charter for the Industrial Heritage* and defined industrial heritage as “*Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value*” (Douet 2012).

Turkey is located in the Mediterranean basin where olive and olive oil production technology continues to develop from antiquity to the present. The factory complex represents the development of olive oil production technologies and reflection of industrilization to architecture. Olive oil factories are social and cultural components of urban life in Turkey. They are connected to human life directly, a work place and living place for citizens (Acar Bilgin 2015).

2. THE INDUSTRILIZATION OF BURSA

Bursa was the first capital city of Ottoman Empire that located in the northeast Anatolia where the space road and silkroad passed in 13th century. Bursa had been a trade center, a warehouse and a gate between Anatolia and Europe in 14th century (İnalçık 2014). The role of Bursa was changed in 19th century, silk factories opened and started to product raw material for Europe (Aktar 1996). After Turkish Republic period in the first half of 20th century, silk industry was the basic production area of the city economy (Acar Bilgin 2015).

After industrial revolution, industrilization of Anatolia occured in the second half of 19th century (Kaplanoplu 2011). Bursa became one of the cities that industrilization and modernization came into life. Silk and olive were the main agricultural products and many silk and olive oil factories were built in Bursa both in Ottoman and Turkish Republic periods. Bursa is a well olive producer city over centuries. Many olive oil factories put into operation in olive producer towns of Bursa from 19th century to the first quarter of 20th century (Kaplanoğlu & Oğuzoğlu 2010).

3. THE OLIVE OIL FACTORY IN TIRILYE

3.1. History and Economy of Tirilye

Tirilye is a coastal hometown located in the west of Mudanya in Bursa city. Tirilye, named as “Bryllis/Bryllios/Bryllion/Trigleia” (Yalman 2013) through history, had been a port in Roman and Byzantion periods since 7th century BC (Ertürk 2009). Tirilye came under the domination of Ottoman State during the conquest of Mudanya between 1321-1330 and Roman people had lived there mostly again. The conquest of Bursa by Greek army between 1920-1922 ended in 1922. After the Turkish Republic was established, an exchange of population between Turkey and Greece occurred in 1923 (Akkılıç 2002).

Tirilye has been a hometown for Roman, Ottoman and Turkish people through centuries and has a peaceful multicultural and multi-religious history with monumental buildings and traditional houses. There are 4 churches, the two of them have been used as a mosque and a cultural center, 1 hammam, 1 stone school (*Taş Mektep*), 4 fountains and Roman cemetery, 1 olive oil factory and 2 workshops as an industrial heritage (Mudanya Municipality 2002). These are the collective architectural heritage of Turkish and Roman people. Tirilye has been registered as a legally protected urban site by Bursa Council of Natural and Cultural Monuments Conservation in 1981 (Ertürk 2009).

After the industrial revolution, in Anatolia early modern factories started to put into operation in the second half of 19th century. Also, Kaplanoğlu & Oğuzoğlu (2010) told that in 1920s there was an early modern olive oil factory in Tirilye. The olive oil factory in Tirilye is one of the 19th century industrial heritage of Bursa city.

Olive and olive oil of Tirilye was world-renowned, sericulture, fisheries and wine production was important sources of income. Olive production still has importance today. In spite of having the same origin in Marmara Region olive trees, olive of Tirilye has a special taste by the advantage of location, wind and climate (Kemankeş 2013). The economy has based on olive and olive oil, sericulture, fisheries and wine production for centuries.

Tirilye has a peaceful multicultural and multi-religious history and became a daily tourism center for visitors with its olive, olive oil, sea, fish restaurants, fresh air urban fabric, architecture and landscape. Olive production and daily tourism make a source of income for citizens at present (Acar Bilgin 2015).

3.2. The History of Factory

The factory is located in the southeast of Tirilye, at the end of the residential area. The prevailing wind direction is from sea to the land, from north to south. The location provides houses not be affected by the smoke of factory (Fig. 1).



Figure 1. Location of the factory in Tirilye (Tirilye Municipality)

There is an olive oil factory campus in Tirilye which embodies most of its traditional production equipments, has been out of use for 15 years. The olive oil factory campus is in the urban site area. The factory and workshop are legally protected and registered as industrial monumental building. The campus consists of four buildings (Fig. 2-6), olive oil factory (1), a workshop (2) which is being used as carpenter's shop and house now, a small service building included kitchen and toilets (3), a worker dorm (4).

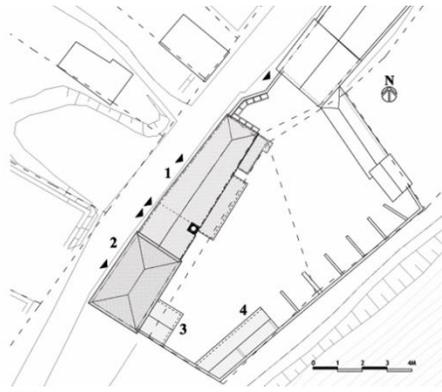


Figure 2. Site plan of the factory complex.



Figure 3-4. Northwest facade of olive oil factory and carpenter's workshop



Figure 5-6. Northeast facade of carpenter's workshop and olive oil factory.

The history of factory complex based on the records of Mudanya Land Registry Office and construction details of the buildings. The first part of the factory has built in 19th century as an olive oil workshop that human and animal power used for production. The second part of the building and the brick chimney have built late 19th century to place the steam engine. In 1923, the exchange of population between Greece and Turkey has occurred. The factory complex was given to Lofçaloğlu family in 1937. After 1940s, the two-leveled building constructed on the uncompleted masonry walls. In 1972, Tirilye Agricultural Advance Cooperative bought only these two buildings from this family and added two small building near the northeast facade of the olive oil factory (Fig. 7). The additional buildings in the backyard and the garden belong to Lofçaloğlu family today.



Figure 7. Periodical development of the factory complex.

3.3. The Architectural Characteristics of the Olive Oil Factory

The olive oil factory has a rectangular plan schema, 5.10 m high single-floor, masonry building. The olives come to garden, be cleared and washed in depot (1), olive crashed and in the mill stone (2), olive paste is pressed by hydraulic presses (3) and deoiled in the olive oil workshop. The olive oil is separated in *polimas* (4), clean oil come to upside, taken by workers and waste water goes to waste water pools buried into floor (5) and garden (Figs. 8-9-10). The clean oil is the filtered in filter room (6) and preserved in metal tanks. The two additional

buildings near the southeast facade consist of toilets, separation pools (*polima*), depot and oil cake (*pirina*) storage at upper level.

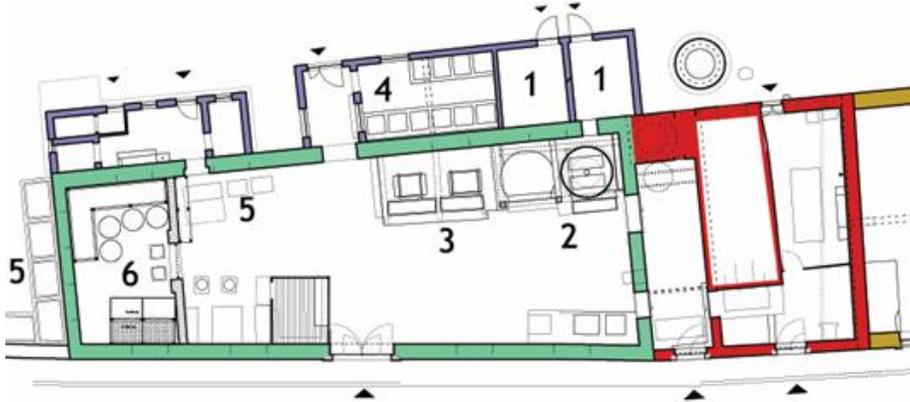


Figure 8. Ground floor plan of olive oil factory.



Figure 9-10. The olive oil workshop - mill stone, hydraulic presses, office.

3.4. The Architectural Characteristics of the Carpenter's Workshop

The second building of the complex is used as a carpenter's workshop at present, has been built as a workshop in early 20th century. It thought to be a soap workshop but the building doesn't have the architectural characteristics of a regional soap factory such as soap boiler, its own chimney, diagonal wooden floor etc. In 1940s, the outer walls were protected, basement floor was rebuilt with reinforced concrete and the first floor was rebuilt with wooden. Basement floor is used as a depot and there are brine tanks for olive. Ground floor is used as a carpenter's workshop and the first floor is used as house at present (Figs. 11-12).



Figure 11-12. Ground floor and the first floor of carpenter's workshop

4. CONSERVATION AND RESTORATION

4.1. Evaluation of the Factory as an Industrial Heritage

The factory embodies the spatial characteristics that changed by power source of the machines. It was only a workshop where human and animal power used for production in 19th century. Steam power was used after industrial revolution reached Anatolia and a part added to workshop for steam engine and the chimney was built. Electric engines were used for turning the mill stones after 1950s.

The steam engine of the factory is lost now but many of its machines used for olive oil production stayed and many of the original architectural characteristics are preserved. This complex is unique sample for Bursa and Marmara Region via the place in the traditional urban fabric of historic town Tirilye. The object is to protect the factory with machines and additional buildings in the backyard even if their different owners.

4.1. Recommendations for Adaptive Re-Use of the Factory Complex

Adaptive re-use is a sustainable method for conservation of industrial heritage like all historic buildings. Tirilye Olive Oil Factory embodies most of the machinery and the building is an example of 19th century olive oil factory architecture in West Anatolia with its symbolic 10-meter-high chimney.

Olive production, silk trade and sericulture are some part of historical identity of Bursa but the city doesn't have a museum about its olive culture. So, "olive and olive oil museum" should be the appropriate new function for this complex.

The garden can be used as a playground for children, an open-air cinema and an open-air wedding area in summer time. Entrances of the museum, shop and cafe are reorganised for disabled people and there is a toilet for them. Near the factory complex, there is parking lot belong to Mudanya Municipality that can serve the museum too. Service building has a new function too; depot (1), a resting/preparing room for guests (2) and baby change room (3). The worker dormitory can be used as a café and its kitchen (Fig. 13-14).

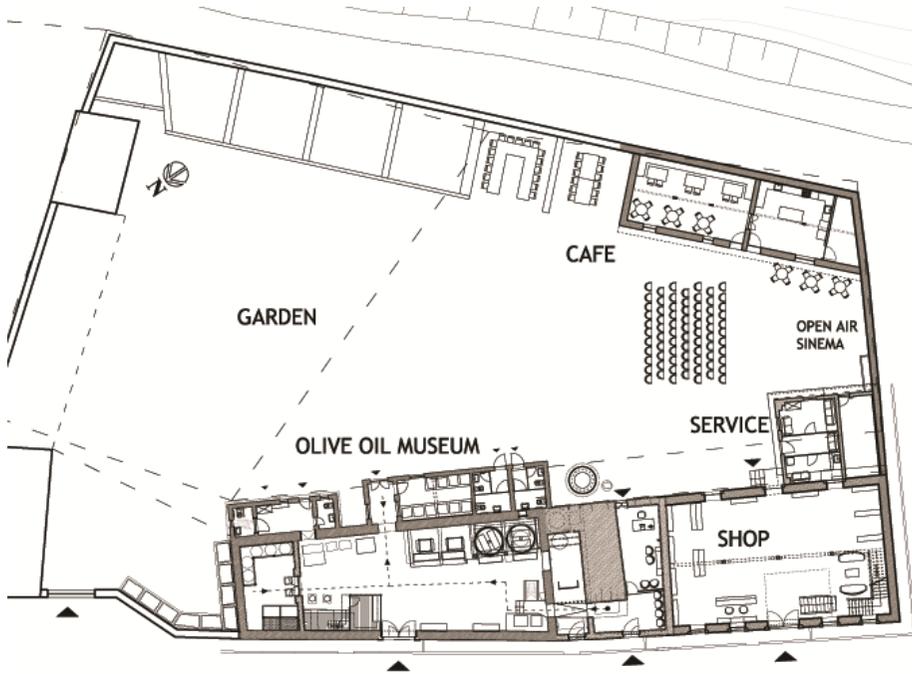


Figure 13. Site plan of factory complex – museum, shop, office, café, garden.

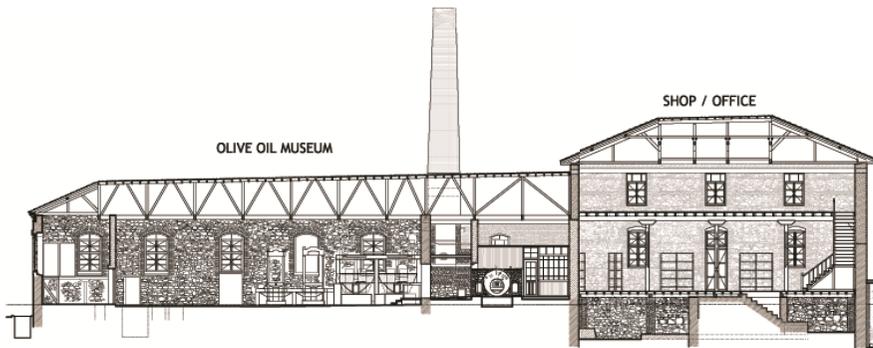


Figure 14. Section of olive oil factory – olive oil museum, shop and office

The carpenter's workshop can be used as a shop and office. The ground floor can be used as a thematic gift shop where olive, olive oil, olive soap to be sold (Fig. 15). The first floor of the carpenter's workshop is suitable for seminars, exhibitions when needed, on the other hand, this space can be used as an office of Tirilye Agricultural Advance Cooperative (Fig. 16).

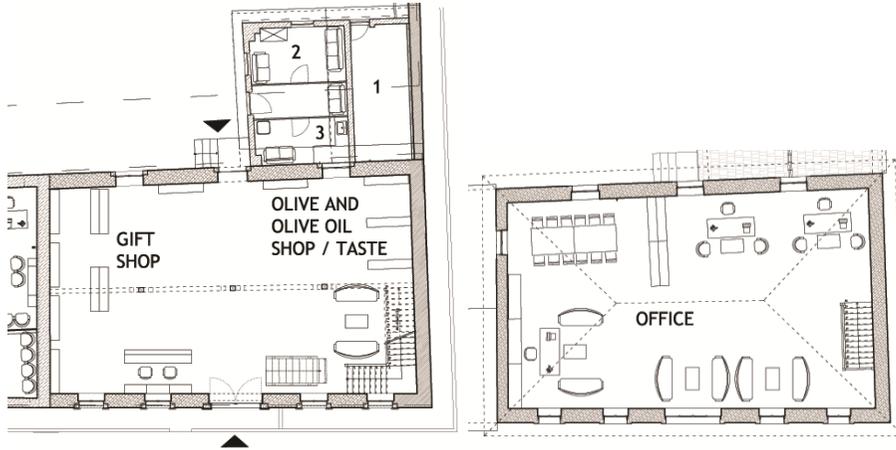


Figure 15. Ground floor plan of shop and service building

Figure 16. First floor plan of shop – office

The museum can be a cultural tourism destination point for city and Tirilye. Museum, office, shop and cafe can be an employment area for local people who are the real users and real conservators of heritage. Also, public use of buildings provides economical advance for citizens. Target group of the museum complex is both local people and tourists.

4. CONCLUSION

Adaptive re-use of the factory as a museum can contribute to interpretation of Tirilye and industrial heritage about olive industry in Bursa. Tirilye has the opportunity to welcome cultural and scientific events with hotels, pansiones, easy transportation from city center and from İstanbul by sea buses.

This factory can be an anchor point of a route of industrial heritage of Marmara region. Also, it can be a part of an olive culture route among the Eagen region or Medirterranean Basin. The olive oil factory in Tirilye is an evidence of industrilization and a sample of multi-national heritage of Tirilye. Re-use of this factory can contribute to not only conservation of industrial heritage but also conservation of Mediterranean olive culture.

Tirilye is a small-scale neighbourhood landscape with its multiethnic history. Economical and historical value of olive and olive oil is a part of cultural identity of Tirilye in all Roman, Byzantion, Ottoman and Turkish Republic periods. So, the factory has become a symbol of Tirilye, serving as material 'evidence' of the social memory of the past multiethnic history.

Olive oil factories are artificial environment, olive trees are natural environment and local people, production techniques and lifestyle are the social environment. These are all components of agri-industrial heritage and cultural landscape of Tirilye. Renovation of the factory means regeneration of urban identity and refresh the collective memory of Tirilye.

REFERENCES

-Acar Bilgin, E. 2015. 19. Yüzyıl Endüstri Yapılarının Kültürel Miras Olarak Değerlendirilmesi: Tirilye’de Zeytinyağı Fabrikası Restorasyon Projesi. Yüksek Lisans Tezi, Uludağ Üniversitesi, Fen Bilimleri Enstitüsü, Mimarlık Anabilim Dalı, Bursa.

- Akkılıç, Y. 2002. Bursa Ansiklopedisi. Burdef Yayınları No: 3, Cilt: 4, İstanbul, 1763-1765.
- Aktar, A. 1996. Bursa'da Devlet ve Ekonomi: Bir Masaldı Bursa, Editör: Engin Yenal, Yapı Kredi Yayınları, İstanbul, s. 119-143.
- Ardakani, M.K., Oloonabadi S.S.A. 2011. Collective Memory as an Efficient Agent in Sustainable Urban Conservation. 2011 International Conference on Green Buildings and Sustainable Cities. Procedia Engineering 21 (2011), pp.985 – 988, Elsevier Science.
- Beyhan, G.Ş., Ünügür, S.M. 2005. Çağdaş Gereksinimler Bağlamında Sürdürülebilir Turizm ve Kimlik Modeli. İTÜ Dergisi/a Mimarlık, Planlama, Tasarım, Cilt:4, Sayı:2, pp.79-87.
- Douet, J. 2012. “The Nizhny Tagil Charter for the Industrial Heritage”, The TICCIH Guide to Industrial Heritage Conservation, Los Angeles.
- Elhan, S. 2009. Kentsel Bellek Bağlamında Sanayi Mirasının Değerlendirilmesi: İstanbul Haliç Örneği. Yüksek Lisans Tezi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Kentsel Tasarım Programı. İstanbul.
- Ertürk, S.A. 2009. Zeytinbağı'nda (Tirilye) Turizm İmkanları. İstanbul Üniversitesi Edebiyat Fakültesi Coğrafya Dergisi, 19: 1-27.
- İnalçık, H. 2014. Osmanlı İmparatorluğu Klasik Çağ (1300-1600). Yapı Kredi Yayınları, İstanbul.
- Kaplanoğlu, R. 2011. 1844 Yılı Temettuat Defterlerine Göre Değişim Sürecinde Bursa'nın Ekonomik ve Sosyal Yapısı. Nilüfer Akkılıç Kütüphanesi Yayınları, Bursa, s. 38-231.
- Kaplanoğlu, R., Oğuzoğlu, Y. 2010. Bursa'da Teknoloji Tarihi. Bursa Ticaret ve Sanayi Odası Yayınları, Ankara, s. 49-54.
- Kemankeş, D.G. 2013. Mudanya'nın Hazinesi Tirilye Zeytini. Bursa'da Yaşam Dergisi, Haziran 2013, pp.240-246, Bursa.
- Lynch, K. 2014. Kent İmgesi (Çeviri: İrem Başaran), Türkiye İş Bankası Kültür Yayınları, İstanbul s.8-9.
- Madran, E. 2001. Kent Belleğinin Oluşumunda Mimarlık Yapıtları. Mimarlık 298 (2001), pp.47-49. Mimarlar Odası Genel Merkez Yayını.
- Venice Charter, 1964.(https://www.icomos.org/charters/venice_e.pdf).