

# Sustainability Route of Reusing of the Industrial Buildings in the Field of Cultural Heritage: Discussion of Golden Horn Region in Istanbul



Mehmet Çerkezoğlu, Ayşe Sirel  
Institute of Science Master of Architecture  
Istanbul Aydın University, Florya /Istanbul /Turkey  
mehmetcerkezoglu@gmail.com, aysesirel@yahoo.com

**Abstract:** Numerous industrial structures, having emerged with the Industrial Revolution, have begun to be inadequate due to the developments and changes of production technologies as well as changes in production systems. This case has led to demolition or functional loss of the existing industrial structures. These threats, emerging against industrial structures in the second half of the 20th century, have brought the necessity of protecting the cited structures into the agenda and the concept of "industrial heritage" has emerged. Institutions and organizations have been founded with an eye to create a travel route between the structures which are considered as industrial heritage and reintroduce them to the public. One of such organizations is ERIH (European Route of Industrial Heritage). Although the industrial revolution was not as effective in the Ottoman Empire as it was in European countries, it has shown its impact in the last periods of the Ottoman Empire and since the foundation years of the Republic of Turkey and industrial structures have been built during the said periods. The current status of the industrial heritage structures which have come to our day within the Haliç (Golden Horn) Region of Istanbul have been examined and "Haliç Industrial Heritage Route", similar to the route created within the purview of ERIH in Europe, has been proposed in this article.

**Keywords:** Industrial heritage, cultural heritage, Haliç, ERIH

## Kültürel Miras Kapsamındaki Endüstri Yapılarının Yeniden Kullanımında Sürdürülebilirlik Rotası: İstanbul Haliç Bölgesi Üzerine İrdeleme

**Özet:** Endüstri Devrimi ile ortaya çıkan endüstri yapılarının birçoğu, üretim teknolojilerinin gelişerek değişmesi ve üretim sistemlerinde yapılan değişikliklerle nedeniyle yetersiz olmaya başlamıştır. Bu durum mevcut endüstri yapılarının yıkılmasına ya da işlevlerini yitirmesine neden olmuştur. 20. yüzyılın ikinci yarısında endüstri yapılarına karşı ortaya çıkan tehditler bu yapıların korunma gerekliliğini de gündeme getirmiş ve "endüstri mirası kavramı" ortaya çıkmıştır. Endüstri mirası olarak nitelendirilen yapıların arasında bir gezi rotası oluşturularak, bunları kamuya kazandırmak amacıyla kurumlar ve organizasyonlar oluşturulmuştur. Bu organizasyonlardan bir tanesi ERIH (European Route of Industrial Heritage) organizasyonudur. Endüstri devrimi Avrupa ülkelerinde olduğu kadar etkili olmasa da Osmanlı İmparatorluğu'nun son dönemlerinde ve Türkiye Cumhuriyeti'nin kuruluş yıllarından itibaren etkisini göstermiş ve endüstri yapıları inşa edilmiştir. Bu makalede; özellikle İstanbul Haliç bölgesinde günümüze kadar ulaşan endüstri mirası yapıların mevcut durumları incelenmiş, Avrupa'daki ERIH kapsamında oluşturulan rotaya benzer "Haliç Endüstri Mirası Rotası" önerilmiştir.

**Anahtar Kelimeler:** Endüstriyel miras, kültürel miras, Haliç, ERIH

### 1. INTRODUCTION

Istanbul and its immediate surroundings were the regions in which most intense industrialization efforts were exerted in the Ottoman Empire during the 19th century. The province, which was the center of the transportation network, has become the industrial center of the Ottoman Empire, particularly after 1850's. The number and diversity of industrial structures has increased following the

arrival of foreign capital in the city. The industrialization process of Istanbul has also continued subsequent to the foundation of the Republic of Turkey. The coastal region of Haliç in particular has become an area where industry structures have become intense due to its proximity to the sea.

These structures, having remained within the city over time and completed the useful lives thereof due to various reasons, have become the most significant representatives of the industrial heritage in Istanbul. It is a must to reintroduce these structures to urban life with new appropriate functions while preserving the specific characteristics thereof in order that the industrial heritage can be transferred to future generations. However these industrial structures, some of them which are still functioning and some of them which have lost their functions are being destroyed due to unconscious repairs without determining a general system and arbitrary decisions taken to this end.

This article was penned with a view to identify the industrial heritage structures along the coasts of the Haliç which has been one of the most productive districts of Istanbul during the industrialization process beginning with the Ottoman Empire and continuing during the Republic of Turkey and offer proposals as to protection and refunctioning thereof within the framework of international works to that effect. It is intended to reveal the industrial tourism potential of the region by the “Haliç Industrial Heritage Route” prepared in this context.

### **The Objective of Research**

Works on documenting and protecting the industrial heritage in Europe have been carried out since many years. Projects have been implemented through determination of routes between various points where especially industrial heritage buildings are located with an eye to exhibit this heritage. This field of study, for our country, is a brand new field. The study is intended firstly to examine the industrial structures which have emerged following the industrial revolution and thereafter within the purview of cultural heritage due to their complementing their physical or economic lives and discuss the works as regards preservation of the industrial heritage both on national and international basis.

Subsequently, the necessity to address the issue of industrial heritage buildings through a holistic urban planning approach in lieu of individual and interdependent works will be revealed basing on the works of institutions which carry out implementations to this end. An “Industrial Heritage Route” will be created by virtue of the refunctioning and protection applications to be developed as a result of addressing the issue. This route is limited to the Haliç region, which is one of the regions where industrial structures of Istanbul are located very intensely. Ecological, social, physical and cultural sustainability of the industrial structures located on the Haliç coast which are discussed in this article is aimed within the scope of the route with a view to provide resources to tourism .

### **Scope and Method of Research**

Impacts of the industrialization period on the Ottoman Empire and the Republic of Turkey are explained firstly in the study. Much as the industrialization history of Istanbul is provided in general, the selected study area is the Haliç region and therefore the areas outside this region are not included in the study.

Previous studies carried out in the literature were examined while editing of the work was created and sources from the internet were compiled. Only the structures in the Haliç region were discussed in detail among the structures in the list of the industrial heritage list prepared in 2005 for entire Istanbul through Gül Köksal, who has been working in our country in this field within the scope of this article. Inasmuch as the main theme of the article is the protection of the industrial heritage, all aspects of the definition of industrial heritage are addressed by detailing the formation of international institutions and protection works to this end. The route system utilized through ERIH (European Route of Industrial Heritage), which is one of the newest among these institutions and which prepares routes of European industrial structures to introduce and protect the industrial heritage, has been applied as a decisive method in determining the Haliç Region Industrial Heritage Route Method proposed in this study.

## **2. INDUSTRIAL REVOLUTION PHENOMENON AND THE INDUSTRIAL HERITAGE CONCEPT**

### **2.1. Historical Development of Industrial Structures**

Conditions for the Industrial Revolution were provided in Europe during the process until the mid-18th century. Power sources such as men, animals, water and wind which were the main sources of production have changed as from the 1760s and steam power and steam machines have started to be used in lieu of foregoing [1]. The cited technological developments which took place in the 18th century led to the transformation of societies, surviving thanks to their agriculture activities, into industrial societies as well as increase of constructions rapidly.

The technical innovations which took place in the first years of the 19th century following these developments constituted the basis of industrial production and these developments changed the world order dramatically. The 19th century, which can be defined as “Age of Steam”, has led to the Age of Iron subsequently. Thus, development of locomotives and railway networks has brought about great progress in transportation and transport. Subsequently new discoveries have begun, with the discovery of electric energy [2].

The effects of the Industrial Revolution on the Ottoman Empire were not as much as it was on other European states. Much as industrialization has begun in the 19th century in the Ottoman Empire, production with simple machines and manpower has continued. On the one hand, factories were established by the state or private institutions and on the other hand small producers continued their existing systems. The factories founded following the 1880s were partially supported by local and partly foreign capital. A large part of the Ottoman factories were established during this period [3]. Istanbul and its immediate surroundings became the regions where industrialization attempts were most experienced within the Ottoman Empire and began to host industrial structures in a short time thanks to their conditions suitable for industry.

### **2.2. Concept of Industrial Heritage**

Existing industry structures began to become insufficient with continuous development of production technologies and changes made in production systems. Existing factories began to lose their functions and be demolished due to their being not compatible with new production techniques in addition to their locations' being no longer suitable, difficulties in supply of raw material or due to their being functionally outdated [4]. The “industrial heritage concept” emerged as a result of threats to industrial structures in the second half of the 20th century.

The recognition of industrial cultures and industrial structures' facing the risk of destruction **has** caused the need for protection thereof. The UK, as the first country where industrialization was first introduced and where the industrial structures were included within the scope industrial heritage, was the first country to initiate works as to protection of the industrial heritage, for the first time in the cultural heritage. Micheal Rix, conducting works on the utilization of the industrial heritage, has been involved in the transformation of iron steel enterprises in the Black County region of England and begun to use the concept of industrial archeology. As Rix's beginning the usage of the archeology term the Council for British Archaeology has established a new research committee in 1959 and asked the government to take measures to protect and record industrial remains [5].

New organizations as to protection of outdated industrial structures launched as from the 1950s led to the idea of “industrial heritage” come to the fore at international level. The concept of “industrial heritage” prepared by the International Committee for the Protection of Industrial Heritage (TICCIH) and signed in 2003 was explained the “NIZHNY TAGIL” charter as follows: “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 places used for social activities related to industry such as housing, education and etc.” [6].

### **3. LAWS AND INSTITUTIONS WITHIN THE CONTEXT OF PROTECTION AND MAINTENANCE OF INDUSTRIAL HERITAGE STRUCTURES**

The British have also spearheaded in bringing the idea of preserving the outdated industrial structures to the international level. In 1973, FICCIM – First International Congress on the Conservation of Industrial Monuments was held with the participation of 61 delegates from 8 countries following the proposal of Neil Cossons, an important expert on industrial archeology in the UK. This congress is important in terms of international discussion of the issue, and following the positive impact created thereby, the second of the same kind of congress was held in 1975 in Bochum, Germany under the name SICCIM - Second International Conservation of Industrial Monuments. The third phase of the conferences held in Stockholm in 1978 became the scene of a new organization. The name of the “Third International Conference on the Conservation of the Industrial Monuments” was changed to Third International Conference on the Conservation of Industrial Heritage”, and the name of the committee same with the meeting was also created as TICCIH (The International Committee for the Conservation of Industrial Heritage) during this time. The new organization, focusing on the concept of industrial heritage with this change of “industrial heritage” instead of “industrial monuments”, is important inasmuch as it has allowed older industrial structures to be considered within the heritage and allowed opens the spread of activities in this field to a wider area [7 ].

#### **3.1. Leading Institutions as to Including the Industrial Heritage to Urban Life**

##### UNESCO/United Nations Educational, Scientific and Cultural Organization

UNESCO was founded in 1946 as a private institution within the United Nations. This organization, which is basically interested in science, culture and education, also works on urban culture in this context. UNESCO defines the significance of industrial areas as follows: “Industrial areas are the key milestones in human history, emphasizing the duality of mankind’s demolition/destruction and creation which has led to problems and development” These areas represent a hope for a better life and being strong against problems. The Turkish National Commission for UNESCO has begun to operate on August 25, 1949 [8].

##### ICOMOS/International Council on Monuments and Sites

ICOMOS (International Council on Monuments and Sites) founded in Warsaw in 1965 following the proposal of the necessity of establishing an international institution to work on the preservation of monuments and sites is another important institution dealing with the protection of the industrial heritage included in the Venice Charter adopted in 1964[9].

##### TICCIH/The International Committee for the Conservation of Industrial Heritage

TICCIH was founded in 1978 as one of the most important organizations dealing with industrial heritage. The purpose of TICCIH is to bring an understanding on the historical, scientific and educational value of the industrial heritage of mankind in addition to preservation of industrial monuments and artifacts as well as provision of cooperation in these issues at an international level. TICCIH has assumed the role of expert committee of ICOMOS on industrial heritage thereby being added to the international organizations network in the center of which there is the United Nations [9].

##### E-FAITH/European Federation of Associations of Industrial and Technical Heritage

E-FAITH is a local and international organization for the European continent rooted from the TICCIH. E-FAITH is a European organization carrying out works with volunteers and nonprofit volunteer associations in the fields of industrial and technical heritage. The organization is open to all ideas to collaborate in the field of industry and technical heritage, facilitate sharing of experience and accumulation of information without making any profit [10].

##### DOCOMOMO/Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement

DOCOMOMO is not an organization founded for the protection of industrial heritage but is interested with the modern architectural heritage of the 20th century in the works conducted thereby as to

protection. It is an institution to which industrial heritage can be partly incorporated considering the historical period it works for [11].

#### ERIH- European Route of Industrial Heritage

ERIH was founded in 1999 to create a more conscious approach for protection of the industrial heritage and develop tourist interest. This organization, examined in detail in Chapter 4, comes to the fore with the “Industrial Heritage Routing Systems” it has determined to increase interest to industrial heritage structures.

#### **4. “ERIH” INDUSTRIAL HERITAGE ROUTE**

ERIH - The European Route of Industrial Heritage is a project aiming to draw attention to the concept of industrial heritage by establishing a network between various points where structures and remains in terms of the industrial heritage exist abundantly and exhibiting this industrial heritage by identifying routes on this network defined by various concepts.

##### **4.1. ERIH NETWORK AND FUNCTIONALITY**

ERIH aiming to create a network between the most important industrial heritage sites of Europe applies many different approaches when determining the points which constitute this network. An unused production center, industrial landscape parks, or technology museums can be one of these points constituting this network. Attention is paid to the existing tourist infrastructure system as well as the nature of the construction during the selection of the structure that can be one of these points. In this way, it is strived to increase the interest in industrial heritage and create a tourist market. In order that an industry structure is included to the ERIH network, it must meet the following requirements mentioned in the ERIH master plan [12].

- must be important for European Industrial Heritage and a historical site with symbolic value. However, if it is not a historic building or a remains, for example if it is a new museum building, then its being comprehensive and qualified will be decisive,
- must be able to recount its history with imaginative presentations and exhibitions,
- must provide current opportunities which are attractive to visitors,
  - Facility tours
  - Guided tours
  - Special offers and tours for children
  - must show its production methods
- uses its surroundings and open spaces for exhibitions, cultural events and other attractions and organizations,
- must provide a number of up-to-date tourist services to meet visitors' expectations,
  - must have a visitor center
  - must have a Restaurant/Cafe
  - must have toilet facilities
  - its opening and closing times must be set and it should be open 5 days a week during all year or at least at certain times if possible
  - must have rest areas especially for exhibitions in open spaces
  - must have sign boards placed inside and outside
  - must be fully accessible by the disabled
  - must be linked to public transport
  - must have a parking and bicycle parking.

The required conditions for inclusion in the ERIH network are evaluated through the ERIH Executive Board. The evaluation consists of two phases. The facilities which desire to be a candidate launch the process with an application form containing detailed information about their current situation at the first phase. This photographs of the place and booklets that introduce the place should be sent with this application form. Then the venue visited by a member of the Executive Board is evaluated and reported in line with the selection criteria [13].

## 4.2. ERIH Route System

ERIH uses 3 different methods in determination of the routes on the network; routes consisting of stopping points, regional roots, and European theme roots.

### 4.2.1. Anchor Point Routes

The most significant routes in Europe can be summed up as the most important points from the historical point of view and the best service providers for visitors. There is a total of 80 anchor points in 13 European countries in our day including, Great Britain, the Netherlands, Belgium, Luxembourg, Germany, France, Spain, Italy, the Czech Republic, Poland, Sweden, Norway and Denmark [13].

### 4.2.2. Regional Theme Routes

Each region bears the own characteristics thereof and the industrial development of each region is different from the others. The regional roots created basing on this difference intend to discover the industry which has developed in a specific region and generally within a certain time period. Regional roots do not have to consist only of the most significant industrial heritage sites, such as the route comprising the base points. Any type of building, park, landscape and unused production areas which are believed to serve industry development within the region and which have joined the ERIH network can be included in this route. Today, there are a total of 17 regional routes designated by ERIH, most of which are located in Great Britain and Germany.

### 4.2.3. European Theme Routes

The European Theme Route refers to an approach which includes the entire Europe, moving through a specific concept. The points connected to the ERIH network all over Europe are determined by one selected among 13 different themes, and the route is created. The themes, determined basing on different industrial fields, are as follows (Figure 1):

- Textile
- Mining
- Iron - Steel
- Paper
- Salt
- Production
- Energy
- Transport & Communication
- Water
- Industry and War
- Settlement (Residence) & Architecture
- Industry of Service and Leisure
- Industrial Landscape [13]

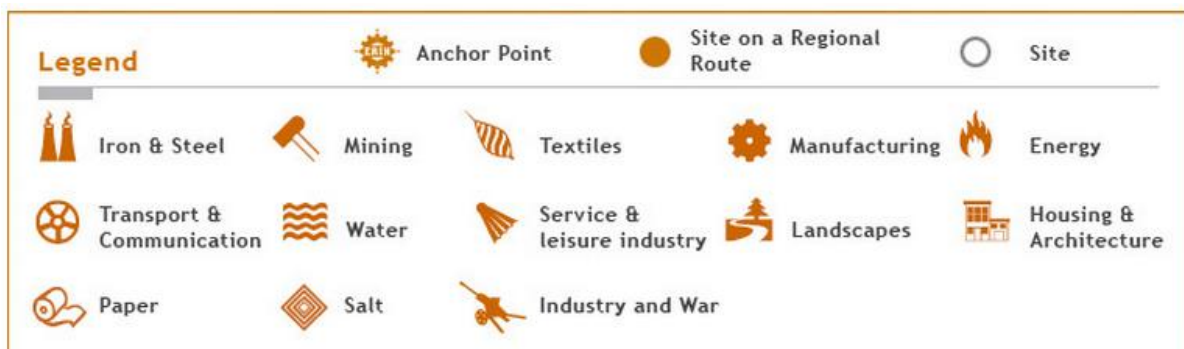


Figure 1. ERIH Theme Routes list [13].

## 5. INDUSTRIAL HERITAGE STRUCTURES OF İSTANBUL'S HALIÇ (GOLDEN HORN) REGION AND INDUSTRIAL HERITAGE ROUTE

Istanbul is the city that best reflects the industrialization initiatives of the Ottoman Empire that began in the 18th century. Likewise, Haliç region, especially with the coastal areas thereof, is a region with strong industrial heritage, which is effective in Istanbul's industrial development.

It is a known fact that Haliç and its surroundings have been settled since the first age. Some of the coastal lanes began to be used as harbors in the 4th century and there used to be ship benches as well as places for repair and caulking. Haliç became one of the most important trade centers of the Mediterranean and Near East subsequent to the 6th century. Haliç, which has been a safe trade center as an inner sea, has become a region connected to the city's highways during the Byzantine period. Importance of Haliç region is due to the power of the historical peninsula. The safe area provided by Haliç has led to commercial strengthening of the peninsula and caused the transformation of peninsula to a city which hosts many cultures [14].

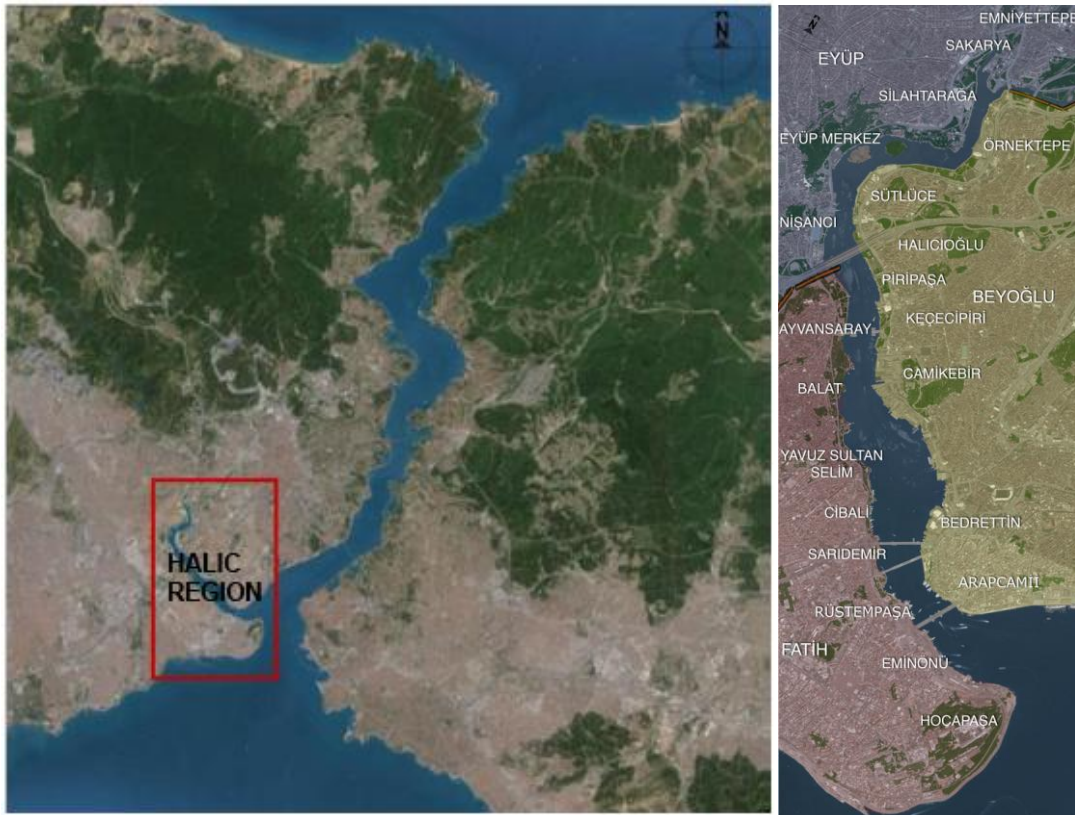


Figure 2. The location and the districts of the Golden Horn Region within the historical peninsula

The effects of the Industrial Revolution on the Ottoman Empire were not as much as it was on other European states. Much as industrialization has begun in the 19th century in the Ottoman Empire, production with simple machines and manpower has continued. On the one hand, factories were established by the state or private institutions and on the other hand small producers continued their existing systems. Istanbul, the capital city of and the immediate surroundings thereof became the place where the industrialization initiatives were most experienced in the Ottoman State. Istanbul, thanks to the appropriate conditions thereof as regards industry, began to host the industrial structures in a short time [15].

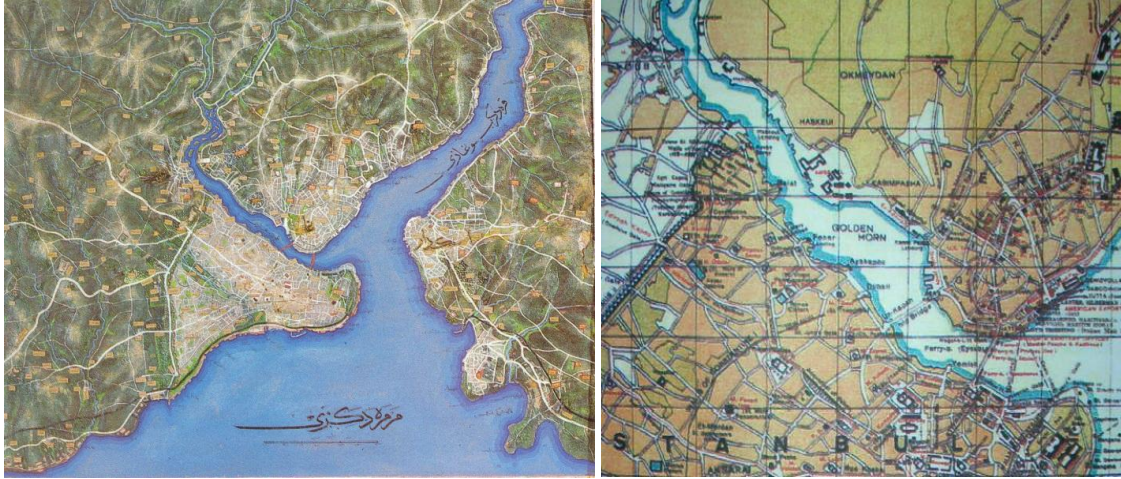


Figure 3. The Golden Horn and its surroundings in 1883 and 1935 [16]

Although Haliç was generally used for activities such as trade, port and storage during the Byzantine and Ottoman periods, it also maintained the industrial function thereof at the same time. Its feature of being a natural harbor has increased the significance of the region and the trade developed in its surroundings has caused it to become an international center. The Byzantine port moved to the Haliç region soon afterwards its being conquered by the Ottoman state. The area from Galata to Hasköy became a place for marine facilities intensively and became the supply, maintenance and production center of the navy. Valide kızıağı, Taşkızak and Ağaçkızak shipyards in the vicinity of Aynalıkavak Palace were built during this period (Figure 3). Shipyard facilities were developed and industrial facilities were established to meet military requirements in the 19<sup>th</sup> century [17].

Haliç, similar to the Byzantine and Ottoman periods, continued its influence on industrial development also during the Republican era. The area became even more attractive for industrial establishments due to increased port development works.

Haliç, with a rich history due to being used as a harbor and shipyard in the Byzantine period and addition of various functions later in the Ottoman and Republican era, continues to maintain the industrial heritage power thereof in spite of all the negative interventions. Haliç, since 2000s, has been defined as a culture and art valley by the Istanbul Metropolitan Municipality and various projects have been developed to this end. Some applications developed within the purview of the cited projects can be considered as steps taken with an eye to protect the industrial heritage.

## 5.2. Detection and Classification of Haliç Industrial Heritage Structures

Although the concept of protection has a large variety of and wide perspective within the scope of international institutional structures and legal regulations, the scope and physical dimension of protection in our country has been detailed and clarified in Ancient Artifacts Regulation (Asar-ı Atika Nizamnamesi) issued in 1869.

We read the following definition in the first paragraph of third article of the Law No. 2863 on the Protection of Cultural and Natural Assets, which is in force today: “Cultural property shall refer to movable and immovable property on the ground, under the ground or under the water pertaining to science, culture, religion and fine arts of before and after recorded history or that is of unique scientific and cultural value for social life before and after recorded history. Although only the cultural, religious, artistic and scientific immovable assets have been referred” to in this definition, industrial structures and facilities which have emerged in the process of industrial revolution, which are the most established socio-economic transformation process in the world history, are also included under the category of “cultural” assets.

Numerous industrial structures on the shores of the Haliç region have not reached the present day. All studies examining the region for identification of the existing buildings were reviewed and traces of



industrial heritage were sought by visits made to the region. A total of 13 industrial structures (Figure 4) with the potential to become members of ERIH in addition to 2 facilities already members of ERIH have been identified as a result of the comparisons made. First and foremost historical significance and architectural values of these facilities, located on two banks of Haliç, were examined and the present conditions each of them were evaluated individually.



Figure 4. Locations of Industrial Structures in Haliç Coasts

#### **Cibali Tobacco and Cigarette Factory (University of Kadir Has)**

Cibali Tobacco and Cigarette Factory, one of the early industrial era structures, was constructed in Unkapanı district, which was one of the most significant trade centers of the period. The factory was designed by H. Aznavur and A. Vallauri in 1884 during the reign of Sultan Abdülhamit II and completed in several stages. Cibali Tobacco, and Cigarette Factory has lost its function since 1995. Consequently, the factory was given to Kadir Has University for 49 years for the purpose of education within the scope of privatization. In 2002, the factory began to serve as Kadir Has University. The structure was awarded the European Nostra Award in 2003 due to the successful restoration works [18].

#### **Feshane-i Amire (Feshane International Fair Congress and Culture Center)**

The structure was established as the first textile factory by prefabricated steel carrier in Eyüp district in 1835. The structure, which became the most important location of the weaving industry, was transferred to Sümerbank in 1937 and it began to be called as Sümerbank Defterdar Woollen Industry Plant. Feshane was restored in 1998 to function as a center of handcrafts, market, exhibitions, fairs and concerts. Currently, the structure is operated through BELTUR (The Metropolitan Istanbul Education Tourism And Health Investments Operation And Trade Corporation) which is a private organization affiliated to the Metropolitan Municipality [19].

#### **Silahtarağa Electric Plant (Santral Istanbul, Bilgi University)**

Silahtarağa Electricity Power Plant, constructed by the Hungarian Ganz Electric Company by upon the instruction of Sultan Mehmet V in 1911 in the area where Kağıthane and Alibeyköy rivers meet, was first used in 1914 to supply electricity to the Dolmabahçe Palace and tram lines. In the same year, the houses of the wealthy families began to be supplied with electricity and the POWER PLANT met the

electricity demand of Istanbul since then until 1952 by itself. The building complex, consisting of approximately 30 different buildings, was rented to İstanbul Bilgi University in 2004. The structure has ERİH membership.

#### **Sütlüce Mezbahası (Abattoir) (Sütlüce Congress and Culture Centre)**

The construction of the Sütlüce Abattoir started on the northern bank of Haliç region in 1919. The structure consisting of a total of 3 pavilions, personnel rooms and administrative building was opened in 1923 during the period of Mayor Cemil Topuzlu [20]. The parts of the abattoir designed by architect Vedat Tek were destroyed although they were registered as cultural heritage in 1998 with decision number 1 on Protection of Cultural and Natural Assets. A similar but a larger cultural center was built in the same place subsequent to the demolition of the historic building.

#### **Lengerhane and Hasköy Shipyard - Rahmi Koç Industrial Museum**

Lenger means chain and anchor at the end of the chain to secure the ship while “hane” means “house”. Although the exact date of construction Lengerhane, where chain and anchors were produced during the Ottoman period is unknown, the structure was founded on a Byzantine structure dating from the 12th century in the period of Sultan Ahmet III (1703-1730). The building, which became unusable following the fire in 1984, was purchased through Rahmi Koç Museum of Culture and Culture in 1991. The building was opened in 1994 as the Rahmi Koç Industrial Museum [21]. The structure has ERİH membership.

#### **Unkapanı Flour Factory**

The structure was made by Sir William Fairbairn, one of the renowned engineers of the 19th century, in 1840 as a prefabricated building. The building, dispatched to Istanbul by ship in 1841, consisted of cast iron columns and beams. There was a stone wall in the structure, roof of which was covered with metal plates, to support the machines. Only the entrance and surrounding walls have remained from the structure which has lost its function in our day. The remains are used as parking and warehouse [21].

#### **Tersane-i Amire (Imperial Shipyard) (Haliç, Camialtı and Taşkızak Shipyards)**

Shipbuilding activities were carried out by the Byzantines in northern region of Istanbul prior to the conquest thereof. This region was continuously expanded regularly over time subsequent to the conquest by the reigning sultans for training military and qualified personnel. Only a few ships were produced and repair works were carried out within the shipyard at the beginning of the 20<sup>th</sup> century and the existing units were not fully used. The shipyard, operated through various organizations during the period until today, was officially closed in 2000 by the decision of Privatization High Council. It was decided to transfer Haliç Shipyard to IU Institute of Maritime Sciences and Management and Camialtı Shipyard to Special Provincial Administration of Istanbul Governorate to be used as a Police School freely.

#### **Kasımpaşa Flour Factory**

The completion time of the factory, construction permit of which was taken in 1852, is not known however it was being operated in 1886 according to the 1913 industrial census. Therefore, the foundation of the factory was considered as 1886. There were a five-storey mill, two-storey wheat warehouse and a four-storey shutter warehouse within the factory. The factory, which has lost its function, is used as a dilapidated warehouse in our day.

#### **Hasköy Hat Factory**

The hat factory is one of the first factories founded under the leadership of Mustafa Kemal Atatürk, following the proclamation of the Republic. It was built as a masonry construction. It has been abandoned and turned into ruins after many years of usage. Later, it was purchased by a private advertising company and protected being restored. Despite the use of the structures by a private company, it continues to host exhibits as well as design and cultural activities in our day.

### Kasimpaşa Salt Warehouse

Kasimpaşa Salt Warehouse and Kasimpaşa Mill, is located in the south of Kalyoncu Barracks and east of the Kasimpaşa Pier with the flour and grain warehouses existing on the same city block since 18th century. The building, not used and has become deteriorated since 1980s, has been rented by a private company for a long-term and has undergone extensive restoration.

### Hasköy Wool&Yarn Factory

Although the Hasköy Wool & Yarn Factory, founded in 1952, is newer compared to other detected industrial heritage structures and maintains the physical nature thereof it could not resist the new technical developments and the production has almost stopped. This structure, continuing yarn production partially in our day, hosts mostly social and cultural activities.

No	Industrial Building's Name	Year of Const.	Place of Building	Busniess Type	Use Condition	Name of Building After Conversion	Year of Conversion	ERIH Membership	Building
A1	Kasimpaşa Salt Warehouse	1830	Kasimpaşa	Food	Oriented Commercial Transformation has Undergone	Kasimpaşa Salt Warehouse DDB Office	2009	Not Member	
A2	Hasköy Hat Factory	1930	Hasköy	Textile	Oriented Commercial Transformation has Undergone	Hasköy Old Hat Factory		Not Member	
B1	Silahtarağa Electric Plant	1911	Silahtarağa	Energy	Oriented Cultural and Educational Transformation has Undergone	Istanbul Bilgi University, Santral Istanbul Campus	2004	Member	
B2	Lengerhane and Hasköy Shipyard	1861	Hasköy	Manufac.	Oriented Cultural and Educational Transformation has Undergone	M. Rahmi Koç Industrial Museum	2001	Member	
B3	Cibali Tobacco and Cigarette Factory	1884	Cibali	Food	Oriented Cultural and Educational Transformation has Undergone	Kadir Has University, Cibali Campus	2002	Not Member	
B4	Feshane	1835	Defterdar	Textile	Oriented Cultural and Educational Transformation has Undergone	Feshane International Fair Congress and Culture Center	1998	Not Member	
B5	Sütlüce Abattoir	1923	Sütlüce	Food	Oriented Cultural and Educational Transformation has Undergone	Sütlüce Congress and Culture Centre	1998	Not Member	
C1	Unkapanı Flour Factory	1841	Unkapanı	Food	Function Lost Out of Use (Ruined Building)	-	-	Not Member	
C2	Kasimpaşa Flour Factory	1888	Kasimpaşa	Food	Function Lost Out of Use (Ruined Building)	-	-	Not Member	
D1	Haliç Shipyard	15. c.	Kasimpaşa	Manufac.	Partially Perpetuating the Function	-	-	Not Member	
D2	Camialtı Shipyard	15. c.	Kasimpaşa	Manufac.	Partially Perpetuating the Function	-	-	Not Member	
D3	Taşkızak Shipyard	15. c.	Kasimpaşa	Manufac.	Partially Perpetuating the Function	-	-	Not Member	
D4	Hasköy Wool and Yarn Factory	1952	Hasköy	Textile	Partially Perpetuating the Function	-	-	Not Member	

Figure 5. Constitutions and features of the Golden Horn Industrial Heritage Route

### 5.3. Haliç Industrial Heritage Route

There was a large number of industrial facilities serving numerous industries such as mainly energy, food, clothing and mineral processing located in Istanbul at the beginning of the 20th century. Cultural, social and economic consequences in addition to physical consequences of industrial development are observed in Haliç region housing most of these facilities. This region, despite the considerable potential offered thereby, has been utilized rather inefficiently compared to similar regions in Europe and the required attentive approach has not been shown. Some of the facilities in this region have lost their nature through renovation works carried out without understanding the importance of industrial heritage while some of them have been left in a dilapidated and unused state to their fate. Although a number of individuals or foundations have led to positive developments projects with the works carried out thereby in this field such individual approaches are far from the efficient works to be created through a holistic approach. In this regard, Haliç industrial heritage route prepared basing on the ERIH route regional in Europe deals with the region with a more holistic approach and aims to bring regional works to an international level (Figure 6).

Haliç region which has an important potential for visitors interested in industrial heritage can be an alternative route to ERIH with the projects to be developed and correct conversion stages it will undergo. The route which will be prepared to introduce the industrial heritage structures of the region reflecting the industrial history of the Haliç region within the framework of a trip will also provide economic gains in addition to increasing the attractiveness of tourism (Figure 5-7). The route consists of 13 industrial facilities and a panoramic view allowing the observation of some of these facilities. Although it is not possible to complete this route in a short period of time inasmuch as the structures spread to both sides of Haliç are very close to each other, the opportunity of a trip taking 3-4 days should be offered for those who want to examine the route in a more detailed way.

Inasmuch as all of the structures included in the route are along with the Haliç coast a facility which is visited also offers the possibility of looking to other buildings on the opposite bank. Similarly, panoramic observation of the points within the route must be ensured basing on the tomographic structure of both banks consisting of hills. In addition, joining this region with other sightseeing routes to regions of high cultural and touristic value of the city such as the historical peninsula and Galata can be realized (Fig. 8).

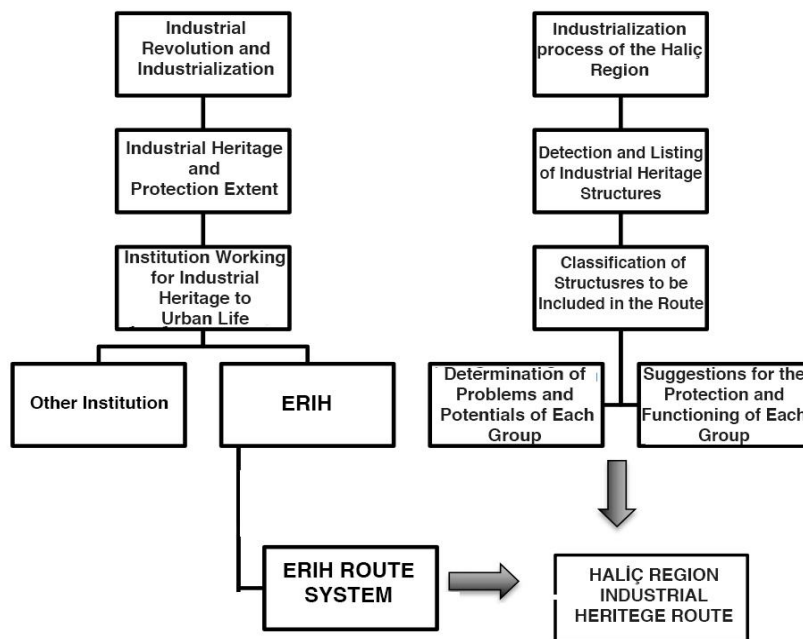


Figure 6. Diagram of Emergence of the Haliç Industrial Heritage Route



- |  |                                     |                                   |
|--|-------------------------------------|-----------------------------------|
| A1 : Kasımpaşa Salt Warehouse                      | B4 : Feshane                        | D1 : Haliç Shipyard               |
| A2 : Hasköy Hat Factory                            | Feshane International Fair          | Imperial Shipyard                 |
| B1 : Silahtarağa Electric Plant                    | Congress and Culture Center         | D2 : Camialtı Shipyard            |
| Istanbul Bilgi University, Santral Istanbul Campus | B5 : Sütluçe Abattoir               | Imperial Shipyard                 |
| B2 : Lengerhane and Hasköy Shipyard                | Sütluçe Congress and Culture Centre | D3 : Taşkızak Shipyard            |
| M. Rahmi Koç Industrial Museum                     | C1 : Unkapanı Flour Factory         | Imperial Shipyard                 |
| B3 : Cibali Tobacco and Cigarette Factory          | C2 : Kasımpaşa Flour Factory        | D4 : Hasköy Wool and Yarn Factory |
| Kadir Has University, Cibali Campus                |                                     |                                   |

 : Buildings included in the ERIH system

 : The proposed buildings for the ERIH system

 : ERIH Regional route suggestions

*Figure 7. Haliç Industrial Heritage Route*

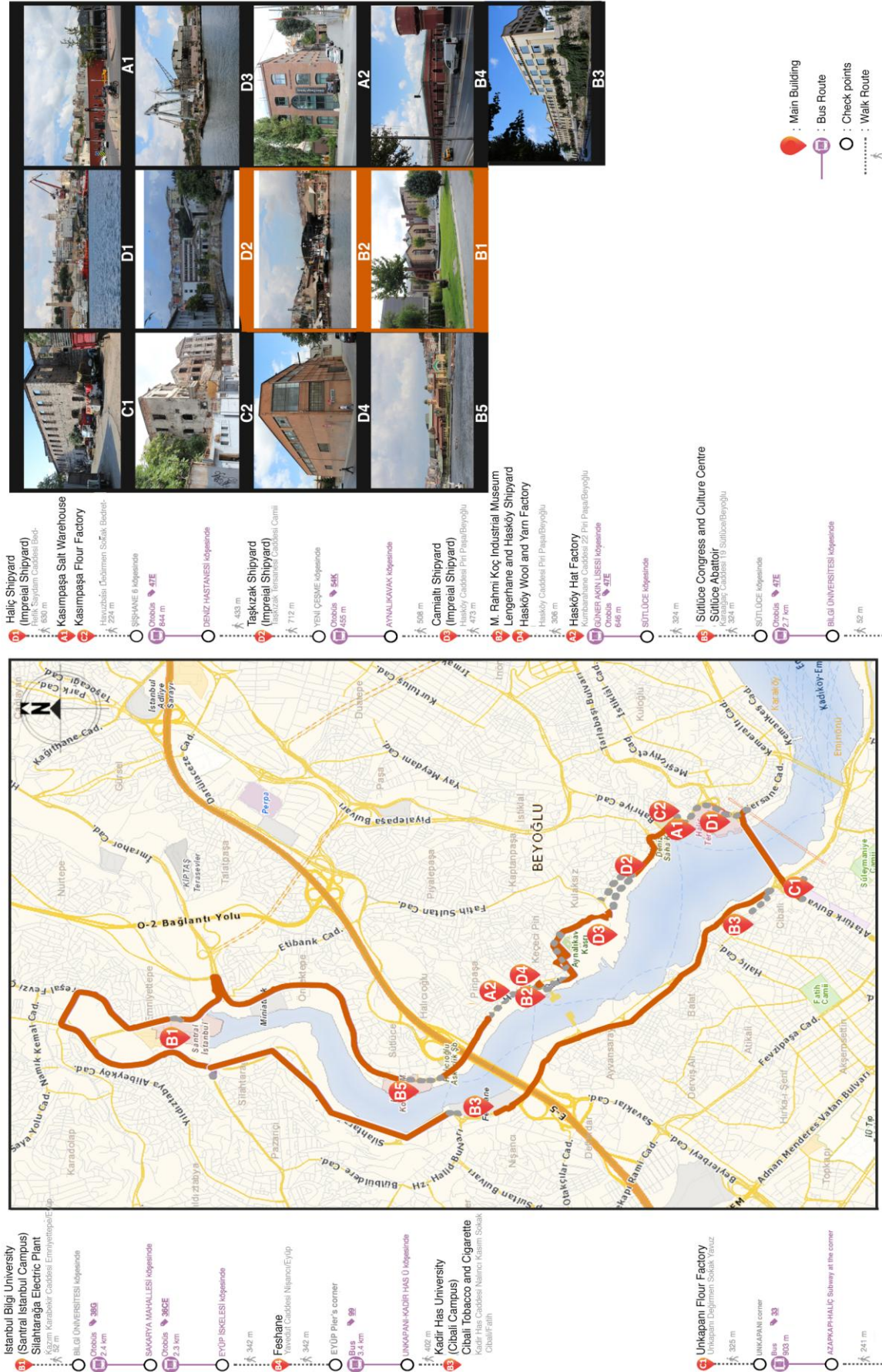


Figure 8. Haliç Industrial Heritage Route, Transportation Map.

## 6. CONCLUSION AND EVALUATION

Closure of industrial structures due to various reasons, such as causing pollution in the city, not being run efficiently and being technologically inadequate or losing their functions, is a situation encountered in the whole world. However, these industrial heritage structures which have contributed to the economic development of the countries for a period should be re-utilized for using for the benefit of the city and the public interest as traces of the industrial past. It is seen in Europe that numerous projects, emphasizing the importance of cities as an industrial center within the historical process and industrial heritage is an indicator of this process, have yielded positive results. International institutions such as the European Council, the Union of Local Authorities (WALD), ICOMOS, UNESCO, TICCIH and most importantly ERIH have been organizations that support the utilization of industrial heritage.

In this context, it will be useful to consider and utilize the industrial heritage buildings in Istanbul as a whole. Specific arrangements should be made in line with the decisions made in this regard at the urban scale and within the framework of a program. A multi-disciplinary business environment should be created through participation of the Istanbul Metropolitan Municipality, Haliç Municipalities Union, relevant trade associations, relevant departments of universities, educational institutions, civil society support and property owners with and it should be entered into cooperation with the institutions name of which are mentioned hereinabove.

This study brings a proposal for documenting, preservation and refunctioning of the industrial heritage structures within the Haliç region which is the most important component of the Ottoman Empire's history of technology and which has assumed an effective role in the city's physical development. A similar industrial heritage route with the specially examined ERIH industrial heritage route has been adapted in particular, on both sides of Haliç under the name of "Haliç Travel Route". We believe that articulation of the proposed route to the ERIH industrial heritage routes in Europe will contribute to acknowledgement of industrial archeology discipline in our country, handling the industrial heritage in Turkey more carefully by virtue of the proposed principles and methods as well as protection and utilization of the industrial heritage in Istanbul.

## REFERENCES

- [1] Pamuk, Ş. (1997). *100 Soruda Osmanlı-Türkiye İktisadi Tarihi*, 1500-1914, İstanbul.
- [2] Dale, H. ve Dale, R. (1992). *The Industrial Revolution*, London: The British Library Publishing Division.
- [3] Ökçün, G. (1997). *Osmanlı Sanayii, 1913-1915 Yılları Sanayi İstatistiki*, Ankara.
- [4] Mengüşoğlu, N., Boyacıoğlu, E. (2013). Reuse of Industrial Built Heritage for Residential Purposes in Manchester (1).
- [5] Kırac, B. (2001). Türkiye'deki Tarihi Sanayi Yapılarının Günümüz Koşullarına Göre Yeniden Değerlendirilmeleri Konusunda Bir Yöntem Araştırması. M.S.Ü., Yayınlanmamış *Doktora Tezi*, İstanbul.
- [6] Url-1 ICOMOS (2015) The Nizhny Tagil Charter For The Industrial Heritage <http://www.icomos.org/18thapril/2006/nizhny-tagil-charter-e.pdf>, (erişim tarihi: 05.04.2015)
- [7] Saner, M. (2012). Endüstri Mirası: Kavramlar, Kurumlar ve Türkiye'deki Yaklaşımlar, *Planlama Dergisi*, Sayı: 12, Sf: 53.
- [8] Url-2 UNESCO (2015) *UNESCO* <http://en.unesco.org/>, (erişim tarihi: 10.04.2015)
- [9] Url-3 ICOMOS (2015) *ICOMOS* <http://www.icomos.org.tr/>, (erişim tarihi: 05.05.2015)
- [10] Url-4 E-FAITH (2015) *E-FAITH* <http://www.e-faith.org/home/>, (erişim tarihi: 10.05.2015)
- [11] Url-5 DOCOMOMO (2015) *DOCOMOMO* <http://docomomo.com/index>, (erişim tarihi: 10.05.2015)
- [12] Preite, M. (2013). Erih Strategy for Industrial Heritage Tourism.
- [13] Url-6 ERIH (2015) *ERIH* <http://www.erih.net/welcome.html>, (erişim tarihi: 15.05.2015)
- [14] Eyice, S. (1975). Tarihinde Haliç; *Haliç Sempozyumu*, 10-11 Aralık 1975, İTÜ, İstanbul, 267.
- [15] Toprak, Z. (1985). Tanzimat'ta Osmanlı Sanayii, *Tanzimat'tan Cumhuriyete Türkiye*
- [16] Kayra, C. (1990). İstanbul *Mekânlar ve Zamanlar*, Ak Yayınları, İstanbul
- [17] Ortaylı, İ. (1995). *İstanbul'dan Sayfalar*. İletişim Yayınları, İstanbul Serisi, İstanbul.

- [18] **Alper, M.** (2004). Dünü ve Bugünü ile Cibali Tütün Fabrikası, *Dünü ve Bugünü ile Haliç, Sempozyum Bildirileri*, der. S. F. Göncüoğlu, 22-23 Mayıs 2003, Kadir Has Üniversitesi, İstanbul, s. 33-40.
- [19] **Ekiz, M.** (2006). Eyüp Sultan Feshane Binası İşlevsel Dönüşüm Süreci, *Arredamento Mimarlık, Tasarım Kültürü Dergisi*, 2006/07-08, İstanbul, s: 135.
- [20] **Batur, A.** (2003). Kimliğinin İzinde, Yeniye Aramak, *M. Vedat Tek: Kimliğinin İzinde Bir Mimar*, haz. A. Batur, Yapı Kredi Yayınları, İstanbul, s. 161-5, 170.
- [21] **Köksal, G.** (2005). İstanbul'daki Endüstri Mirası için Koruma ve Yeniden Kullanım Önerileri, *Doktora Tezi*, İstanbul Teknik Üniversitesi, Fen Bilimleri.

**Figure Sources:** Figures 2, 4, 5, 6, 7, 8; It was produced by Mehmet Çerkezoğlu working on Google map.

**MEHMET ÇERKEZOĞLU, B. Arch,**

Received his B.Arch (2011) from Istanbul Aydın University, Faculty of Architecture, and M.Sc. in Architectural Design (2016). After completing his undergraduate studies, he has worked in various architectural buildings and in the construction sites. As of February 2015, as a part-time lecturer in the Department of Architecture at the Istanbul University of Aydın, Faculty of Architecture and Engineering, a relative has begun and still continues.

**AYŞE SİREL, Asst. Prof.Dr.,**

Received her B. Arch (1980) from Mimar Sinan University, Faculty of Architecture, and M.Sc. in City Planning from Yıldız University (1982). She earned her Ph.D. degree in City and Regional Planning from Mimar Sinan University (1993), Istanbul, Turkey. Dr. Sirel worked as a Research Assistant at the City and Regional Planning Department (Mimar Sinan University/1983-1993) and as Assistant Professor in the Department of Architecture (Trakya University/1994-2008). Currently, she works as an Assistant Professor at Istanbul Aydın University (2007-2016). Her major research interests include urban design and architectural design.