CONSERVATION PRINCIPLES FOR INDUSTRIAL HERITAGE
İZMİR-ALSANCAK LİMAN ARKASI DISTRICT

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ABSTRACT

CONSERVATION PRINCIPLES FOR INDUSTRIAL HERITAGE İZMİR-ALSANCAK LİMAN ARKASI DISTRICT

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The industrial revolution in the 19th century affected the world in social, economic, and socio-cultural aspects, also influencing the physical environment by altering the types of structures since the production turned from conventional type into industrial. The industrial buildings were utilized actively for many years; however, they were mostly abandoned due to various reasons. These sites became derelict areas within the significant locations of the cities, which were settled far from the city centers in advance. The former industrial buildings are under threat of being disappeared as a result of nonuse and dilapidation.

This thesis focuses on Alsancak Liman Arkası district, the first industrial zone of İzmir including the earliest factories of the Ottoman period after those in İstanbul. The site contains the industrial, cultural and natural heritage from the 19th and the 20th centuries with various functions. Liman Arkası lost its original function in time thus the site turned into urban wasteland and industrial heritage is in danger of disappearance. The conservation of industrial heritage is the spotlight for this study before they vanish. This thesis aims to understand the significance of Liman Arkası district and develop particular conservation principles to conserve the site with all of its characteristics.

Keywords: Industrial heritage, conservation, İzmir Liman arkası, transformation.

ÖZ

ENDÜSTRİ MİRASI İÇİN KORUMA İLKELERİ
İZMİR-ALSANCAK LİMAN ARKASI BÖLGESİ

Koyuncu Peker, Nilay
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19. yüzyıldaki endüstri devrimi sosyal, ekonomik ve sosyo-kültürel açılardan tüm dünyayı etkilemiştir. Ayrıca, geleneksel üretimin endüstriyel üretime dönmesiyle birlikte oluşan yeni yapı türleri sebebiyle fiziksel çevreyi de etkilemiştir. Oluşan bu endüstri yapıları ve endüstriyel alanlar uzun yıllar aktif olarak kullanılmıştır. Fakat, bir süre sonra bu alanlar çeşitli sebeplerle büyük ölçüde terkedilmiştir. Bunun sonucunda, önceden şehir dışında konumlanmış olan bu endüstriyel alanlar, şehrin önemli konumlarında harabe görünümüne ulaşmıştır. Eski endüstri yapıları kullanılmama ve bakımsızlık sebebiyle yok olma tehlikesiyle karşı karşıya kalmışlardır.

Bu tez İzmir'in ilk endüstri bölgesi olan ve Osmanlı Dönemi'nden kalma İstanbul'dan sonraki en eski endüstri yapılarını barındıran Alsancak Liman Arkası bölgesi üzerinde durmaktadır. Bu alan çeşitli kullanımlara sahip 19. ve 20. yüzyıllardan kalma endüstriyel, kültürel ve doğal miras alanlarını içermektedir. Liman Arkası bölgesi zaman içinde özgün işlevini kaybetmiş ve kentsel çöküntü alanı haline gelmiştir. Endüstri mirası da yok olma tehlikesiyle karşı karşıya kalmıştır. Kaybolmadan önce endüstri mirasının korunması bu çalışmanın ana odak noktasıdır. Bu bağlamda, bu tez, Liman Arkası bölgesinin öneminin anlaşılmasını ve alanın tüm karakteriyle korunması için alana özgü koruma ilkelerinin belirlenmesini amaçlamaktadır.

Anahtar kelimeler: Endüstri mirası, koruma, İzmir Liman arkası, dönüşüm.

To my family..

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ABBREVIATIONS

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CBA: The Council for Britidh Archeology

COE: Council of Europe

ÇEKÜL: The Foundation for the Protection and Promotion of the Environment and Cultural Heritage- Çevre ve Kültür Değerlerini Koruma ve Tanıtma Vakfı

DJC: The Docklands Joint Committee

DOCOMOMO: Documentation and Conservation of Buildings, Sites and Neighborhoods of the Modern Movement

E-FAITH: European Federation of Associations of Industrial and Technical Heritage

EGO: General Directorate of Public Transport Services Of Ankara- Ankara Elektrik, Havagazı ve Otobüs İşletme Müessesesi

ERIH: European Route of Industrial Heritage

EU: European Union

FICCIM: First International Congress on the Conservation of Industrial Monuments

ICOM: International Council on Museums

ICOMOS: International Council on Monuments and Sites

LDDC: The London Docklands Development Corporation

LDSP: The London Docklands Strategic Plan

NRIM: National Record of Industrial Monuments

SIA: The Society for Industrial Archeology

SICCIM: Second International Conference on the Conservation of Industrial Monuments

TICCIH: The International Committee for the Conservation of Industrial Heritage

UNESCO: United Nations Educational, Scientific and Cultural Organization

CHAPTER 1

INTRODUCTION

Industrial areas having the historical value have always been significant since they show the development of the industry of a city and the architecture of a period. They were generally developed with the functions of production, storage, and transportation. With the impact of the industrial revolution in the 19th century, the production was turned from conventional type to industrial. Accordingly, large industrial facilities were established all over the world. The industrial revolution affected life both in social and physical way. With the change in technology, new building types were shaped. The Ottoman Empire was also affected by the industrial revolution and set up industrial plants on many branches. Certainly, İstanbul as the capital was the city where the industrial facilities were constructed densely. On the other hand, İzmir owns the earliest industrial plants in some branches after those in İstanbul, built in the second half of the 19th century in Turkey.

However, these areas were not utilized efficiently over the years. The reasons beyond this vary from the change in function, the relocation of the activities to the rapid progress in technology which affected directly industrial buildings, also the legal amendments. When these areas lost their original functions, they were vacated, and eventually, the transformation projects came into prominence as happened in many cities in the world.

One of these areas in Turkey is İzmir- Alsancak Liman Arkası district which has been in the stage of transformation for a long time. İzmir has been identified as a port city through the years. The city has been developing in terms of industrial and commercial facilities since the 19th century thus the industry of the 19th century and Republican period is worth to be examined (Çıkış, 1999).

In the historical development, İzmir emerged as a port city between East and West at the end of the 16th century. With the changes of silk trade on Halep road to İzmir, the city took part in the significant alteration (Çıkış, 1999). The second phase of the growth occurred in the middle of the 18th century and continued until the last quarter of the 19th century because of the development of other cities (Kasaba, 1994). In the Ottoman period, İzmir was within the compass of the industrialization process with the shipping of foreign products as well as the agricultural products of Western Anatolia. Besides, the establishment of the production sites gained acceleration. This development of trade changed the social and physical structure of the city with the new building types. In this sense, Alsancak Liman Arkası district, which was the extension of Punta in that period, became the center of the industrial buildings in the 19th century. The area had large vacant lands using for excursion and sports at the end of the 18th century, which enabled to build new structures. Moreover, the construction of İzmir- Aydın railway and the terminal station at Punta in 1857 were the main reasons why the industrial plants were located here. Afterwards, in 1863, the second railway which was İzmir- Kasaba lined off the district. These two lines physically bordered the area and this bounded land has always been approached integrally by the authorities with the description of 'the backyard of Alsancak harbor', Liman Arkası, after the construction of Alsancak harbor in 1950s.

With its great location, the district has been densely utilized with the commercial, storage, industrial, and residential facilities over the years. The site, only historic industrial zone of the city, includes different types of industrial plants with various architectural characteristics. Also, it has buildings of varied categories from the 19th to the 21th century. Liman Arkası is quite significant district within İzmir with these components; however, the site turned into urban wasteland due to various reasons. Thus the industrial heritage as part of the cultural heritage is in danger of disappearance. The conservation of the site with all of its components is a critical issue before the heritage disappeared. Also, to understand the significance of the site and to integrate the site into the city are other essential points to be considered.

1.1. Problem Definition

The issue of the conservation of disused industrial sites has been increasing in the world. When the industrial buildings became unproductive and under the threat of being disappeared, the notion of "industrial heritage" was improved as a result of reactions of industrial societies. Early industrialized countries, initially England, was conscious of this concept in advance while it was at Turkey's agenda subsequently. Since these buildings have indicated the industrialization of a period in the cities, they should be preserved, not to be disappeared. There have been lots of examples from the world that the industrial buildings and sites have been conserved with different approaches.

İzmir is one of these cities having historical industrial district located at the backyard of the present Alsancak port. As mentioned, this area, developed in the 19th century, consisted of industrial heritage with natural and cultural assets, including the original function of industrial complexes, production units, warehouses, commercial and residential units. While the historical port had been located in the southwest of the study area, a new port was constructed on the north of the site in the middle of the 20th century. Following, the industrial district was supported with the functions serving to the port, especially storage.

Alsancak Liman Arkası district mainly includes the industrial plants with different architectural features both from the Ottoman and Republican period. It has been quite significant site with its historical railway lines, its stations and annexes, production and storage facilities, additionally residential units. The site contains industrial plants in various scales as Gasworks, Şark Industries Factory, Electric Plant, Sümerbank Complex, Flour Plants, Tile Factory, and Alcohol Factory that could be counted as industrial heritage. Besides, warehouses related to the industrial facilities and small production units, additionally residential units were registered as cultural heritage. However, many industrial buildings and related structures within the site began not to use actively with the technical progress in industrial activities, change in production and other developments. Therefore, the buildings and accordingly the area slowly became derelict and fell into ruin.

This site containing the industrial, cultural and natural heritage has been quite valuable with its historical structures and the location in the city thus it has been suffering from the transformation scenarios for a long time. Through the years, there have been some individual restorations; however, most of the main industrial plants are still idle or many of the small-scaled production and store units are used in a neglected condition. There were also destructions of unregistered Tariş buildings, spread quite large area on the site. Following, an urban transformation project regarding this area was started. Moreover, another transformation project for the residential district on the south has been on the agenda for a few years, which contains housing units of traditional architecture and social housing. Besides, it's close neighborhoods, Salhane, Bayraklı and Turan, have encountered with urban transformation projects and some of them took shape. Nevertheless, none of the master plans were implemented in the Alsancak district. The site has aroused interest and been designed in previous planning studies and competitions since 1924. There have been various design ideas concerning Liman Arkası district. Also, the master plans on different scales have been prepared by the municipalities since 1973 regarding the site. Yet, these master plans were canceled in a way or engaged in a lawsuit because of the objections. That is significant to understand why these plans could not be applied, why these heritage buildings could not be reused over the years and how these major transformations will affect the heritage right beside. It is necessary to find the solutions to conserve the industrial, cultural and natural heritage focusing on the industrial before they have been disappeared. Also, it is must to get across the significance of the site, that should be understood by all.

To sum up, the area has been suffering from transformation scenarios through the years; however, the priority of the projects was urban development instead of conservation of historical buildings. Related with, the reasons lying under why the area could not be transformed should be identified for the conservation of heritage since these long processes without carrying into practices harm the heritage. Alsancak Liman Arkası district, as being the first industrial zone of the city and holding the earliest examples after İstanbul, should be conserved as immediate as possible both for the distinctiveness of the city and the survival of the structures. The site has continued to develop without losing its architectural and historical

significance; however, its significance has not been understood adequately thus the heritage is in danger of disappearance as the principal issue. The loss of the functional and structural variety should be avoided.

Figure 1-1: Alsancak industrial district[1]

1.2. Aim and Scope of the Study

Industrial heritage is significant primarily in the sense of informative value on the industrialization of a city. The study area, known as Punta and then Darağacı in the past, has been continually the industrial zone of İzmir, as being the first industrial zone. The district includes different types of buildings as factories, warehouses, workshops, shops and houses, part of which are in use. The area is also important with regard to its location as an interface between the city and the sea. The industrial district has been of the essence that interconnecting the old and new city center, with the potential of expanding area for Alsancak.

[1] Google earth image last accessed on 07.09.2019. https://earth.google.com/web/@38.44166138,27.15675289,2.5288739a,6935.03736845d,35y,0h,41.3502959t,0r

The area has always been the target of urban renewal projects through the years; however, projects cannot be completed and implemented because of administrative and ownership problems. Beyond the legal problems, the basic issue for the area is connected with the physical environment. At the site, some projects concerning reuse of the buildings have been practiced with the additions of new structures. However, these interventions are not enough to conserve the whole area since the implementations have intended for single buildings. Also, the consciousness of conservation and preservation is not at the forefront for many applications. Hereby, the lack of a holistic approach, unawareness of the significance of the area and reuse practices not dealing in the context of conservation have been major issues for Liman Arkası district.

The conservation of this partly abandoned area is the top priority for the transformation of the area. It is a known fact that re functioning has been needed in order to conserve these areas since the reason beyond the abandonment has been mainly disuse. However, the concept of industrial heritage taken into consideration as an architectural value has been discussed quite recently in our country, including the practice of transformation. Accordingly, it is necessary to understand these concepts and how they take place in the world so this has been within the scope of this study.

In this context, this thesis aims;

- To conserve Alsancak Liman Arkası district with all of its characteristics by developing principles
- To emphasize the significance of the district comprising the earliest industrial plants, after those in İstanbul, built in the second half of the 19th century in the Ottoman Period.

1.3. Methodology

This thesis contains a variety of research methods according to the context of chapters. So it covers literature survey of books, articles, previous academic studies such as thesis and related websites; search on international charters and guidelines;

site surveys conducted at different times in Alsancak Liman Arkası district; interviews with architects and city planners from Konak and Metropolitan Municipalities, Conservation Board, Metropolitan Municipality Department of Urban Transformation; archive research on board decisions in İzmir Conservation Board of Cultural Heritage, previous planning studies from municipalities; national laws and regulations; aerial maps from Google Earth; finally some photographs and maps from İzmir Geographical Information Systems of 2D and 3D.

In order to determine conservation decisions, it is required to comprehend the basic concepts about the subject. Therefore, the literature survey is needed to gain theoretical knowledge on related subjects through publications, previous studies, articles from official websites and international charters. Literature survey at this chapter includes the background of the concepts related to industrial heritage, industrial archeology, industrial landscape and reuse of them. Also, international charters were used as a source for the necessary principles and guidelines to deal with the concepts. The following research on literature in this chapter covers the different case studies from the world and Turkey. To learn various approaches related to conservation of industrial heritage is significant to develop the decisions for the study area by resolving similarities and differences with the case studies. Höhmann's methods[2] of industrial heritage conservation were the starting point to deal with the cases. ERIH was used as the main source while choosing the examples of relatively small-scaled. Urban scaled examples, on the other hand, were chosen from three dissimilar cases with varied sizes, all of which are prominent in their countries. Afterward, legislation regarding the cultural heritage in Turkey was briefly analyzed with the varying laws up to now.

Following the literature survey on definitions and examples, the study area was researched in a detailed way starting with the industrialization process of İzmir. The information about the history and development of the city was mainly gathered from books, articles, and official websites about İzmir. The built heritage on the

[2] Conservation methods will be explained in the second chapter.

study area was examined by site survey proceeded with observations, taking notes and photographing in different times. Analysis sheets were prepared by the author to express the general characteristics of the site by compiling the studies. Google earth images and city maps gathered from the municipalities were used as a base to prepare these analysis sheets. Photographs mainly taken by the author were used to improve the visualization of the site. İzmir Geographical Information Systems and Google earth images were referred when the photographs remained incapable or the author could not access the structures due to various reasons.

City maps produced in different years were used to explain the physical development of the site. In this respect, the books of Beyru (2011) and Atay (1998) were referred as main sources. Also, Pervititch map was redrawn by the author to make all the information clear. Planning studies conducted by different authorities at various times contributed to this thesis. Master plans and revisions, plan notes were collected from the municipalities. Moreover, personal interviews with public authorities were made to get more information about planning studies. Additionally, the board decisions were ascertained from İzmir Conservation Board of Cultural and Natural Heritage to understand the conservation history.

There are two master thesis regarding Liman Arkası district, one of which was done by Şimşek (2006) and other study was done by Acar (2011). It is good to mention their contents even though they were not used as the main sources. Şimşek studied on documentation and conservation problems of the registered factories by choosing Gasworks to study in more detail. Methods for conservation were mentioned in general for Liman Arkası district but the study was focused on eight industrial plants. In the end, projects were produced for Gasworks. The study is valuable due to the documentation of factories while their physical conditions were better; however, general approach between two thesis and the proposals brought forward are quiet dissimilar since the area was treated as a whole in all analyses by the author in this study. Another thesis was completed by Acar (2011), which covers Liman Arkası district in terms of design and administration. Indeed, the thesis focused on planning activities via urban transformation of İzmir harbor which

includes Turan, Salhane and Alsancak. The contexts of the thesis are different. These two studies were benefited in some parts of the third chapter.

In the fourth chapter, the study was based on determining values, problems, and potentials in various scales. City scale and close neighborhoods were evaluated briefly while the site scale was done in detail. The assessments covering the study area were also represented with the analysis sheets, and photographs taken by the author supported the subject. Cultural heritage values that are related with the study area were referred with the previous publications, international charters, and research reports. The value assessment was done with reference to defined values. The problems and potentials were mainly evaluated by the observations of field survey and background information.

In the last chapter, the conservation principles for industrial heritage within the study area were determined in various scales in the light of these data and researches. As a starting point, Dublin Principles (2011) was cited for the principles in general terms. Conservation principles were adapted to Liman Arkası district both in broad manner and detailed proposals.

1.4. Structure of the Thesis

The study is structured in five chapters, first of which is the introduction where the problem definition, aim and the scope of the study and the methodology were explained.

In the second chapter, the background of the concepts related to this thesis, which of industrial heritage, industrial landscape, and industrial archeology were covered with detailed definitions; history and how they took place in the international documents. Moreover, practices of TICCIH, international charters of "The Nizhny Tagil Charter for the Industrial Heritage" and "TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes" were examined to comprehend principles of conservation of industrial heritage. Besides, the projects on urban and building scales from the world were studied in order to understand the approaches of conservation in similar areas. Moreover, the legal

process regarding the cultural heritage in Turkey was shortly studied in order to see the effects on conservation of industrial heritage. In the end, a general evaluation of the chapter was done.

In the third chapter, Alsancak Liman Arkası district was studied covering physical, historical, and industrial development to understand the past of the area. Detailed research was made on the study area with all of the analyses as category of edifices, structural system, the height of the buildings, accessibility, registered building lots, built-up and open areas in order to understand the current situation of the study area. Afterward, planning and conservation histories of Liman Arkası district were researched in detail to make evaluations via the previous studies and approaches. Next, legal and administrative status of the site were studied to understand the related institutions and stakeholders regarding the district. At last, a general evaluation was carried out.

Following, the assessment of Liman Arkası district was done as defining values, problems, and potentials. A comprehensive evaluation was made in the fourth chapter, concerning all of the characteristics of the study area. While defining the values in the site, the specified values for cultural heritage were referred to understand better. In this part, the area was discussed with all of its components and a detailed interpretation was developed in the light of studies on literature survey.

Finally, in the last chapter, a brief summary of the thesis was completed at first. Following, conservation principles for industrial heritage were mentioned, which had been defined by charters of TICCIH, the Dublin Principles. Thus these general principles have been adaptable to the sites. The conservation principles particular to Liman Arkası district were determined based on the general principles of TICCIH and the discussions at the previous chapters. The literature surveys, the field study and the assessment of the site were all contributed to develop the conservation principles. A general approach for the study area was proposed in an integrated manner for cultural assets focusing on industrial heritage. To conclude, the general evaluation of the thesis was done.

CHAPTER 2

CONCEPT OF INDUSTRIAL HERITAGE

The awareness of the conservation of cultural heritage sites was the origin in the 1930s based on charters in the general sense. Afterward, specific concepts about heritage have been discussed lasting the years. Industrial heritage in a specific manner, on the other hand, has been quite recent concept in comparison with other historical monuments. What emerged the industrial heritage should be referenced before talking about the concept, which was "Industrial Revolution".

In this chapter, a brief history of industrialization will be mentioned as a starting point for the subject. Following, the definition and scope of the industrial heritage will be explained with the related terms of industrial archeology and industrial landscape. The consciousness of conservation of industrial heritage and international organizations working on this field will be talked about in short. Conservation approaches of industrial heritage will be discussed with examples. Finally, the legal process in Turkey concerning industrial heritage will be studied and general evaluation will be done.

2.1. Brief History of Industrialization

In the late 18th century, the Industrial Revolution started to affect the societies all over the world as first initiated in Britain. That was the period of agricultural and rural societies has gradually become industrial and urban. In general term, the Industrial Revolution could be explained as the alteration of handicraft economy to machine manufacturing, dominated by factories. The term was used by British economist Arnold Toynbee to characterize Britain's economic development between

the years 1760 and 1840.[3] The technological developments within this context altered social, economic and cultural facilities. So the progress in the industry affected the way of life and architecture also. With this development, new materials and construction techniques started to be used in architecture and new building types emerged. This was not a sudden change in every aspect but it has been taken shape in a long period.

When we look more closely to the history of the industrial revolution, Britain's role as the "birthplace" was ground for different reasons; such as its great stores of coal and iron ore, and the situation of the world's leading colonial power benefiting the sources and marketplace.[4] Moreover, the transportation network was advantageous since it was easy to access the rivers in Britain and the country had a railway connection (Hobsbawm, 1968). These developments affected other countries starting from Britain. European countries such as France, Belgium, Germany and the United States were involved in these advances in the first part of the 19th century. On the other hand, Japan, Russia, and European countries like Italy and the Netherlands were influenced at the beginning of the 20th century. (Köksal, 2005) Also, the changes caused by the industrial revolution affected the traditional economy of the Ottoman Empire which reigned on three continents at that period. The traditional economy of the Ottoman Empire was based on agriculture and it was keeping sufficient production and competitive power since that period. However, the Empire was negatively affected by the changing economic system in the world thus industrialization movements started at the beginning of the 19th century in a limited way (Erdem, 2016).

The initiation of the term was in the 18th century; however, it has been mentioned that it was not a sudden change. There were factors and inventions contributing to the industrial revolution since the end of the 17th century.

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[3] https://www.britannica.com/event/Industrial-Revolution last accessed on 16.09.2017.

[4] http://www.history.com/topics/industrial-revolution last accessed on 16.09.2017.

These could be listed as follows;

- The exploration of the steam engine in 1698,
- The discovery of coke-fuel by Abraham Darby in 1709 to produce cast iron in a cheaper and easier way,
- The first steam engine was designed by Thomas Newcomen in 1712 and these were first made in 1721 and 1731 for Walloon Coal Mine,
- The discovery of Jim crow in 1733,
- Spinning machine, that provided to "produce multiple spools of threads simultaneously", was invented around 1764 by James Hargreaves,
- The steam engine was improved in 1769 by James Watt, and turned into power machinery, locomotives and ships in time,
- The weaving loom was discovered in 1778 and the power loom was innovated in the 1780s by Edmund Cartwright,
- The first steam textile mill was established in 1785,
- Abraham Darby found an easier and cheaper method to produce cast iron by using the coke-fueled furnace in the early 18th century. In the 1850s, Henry Bessemer developed the first inexpensive process for mass-producing steel,
- The first iron bridge, located on Severn river near Coalbrookdale (Figure 2-1 a), was designed by Thomas Farnolls Pritchard in 1779 and it was built by Darby and Gregory,
- The first steamship was built in 1783. In the early 1800s, Robert Fulton built the first commercially successful steamship,
- In 1804, Richard Trevithick constructed the first railway steam locomotive.[5]

[5] The list covers the general innovations during the industrialization process, which were summarized by using the sources as;

- http://www.history.com/topics/industrial-revolution
- Köksal, 2005

These sources could be referenced for further information.

Developments mainly in the textile and iron industries played a major role in the industrial revolution. The technological improvements starting from steam continued with the iron, locomotives, and railways, additionally with the invention of electricity later on. These advances first altered the manufacturing type and proceeded with the changes on buildings types regarding architecture, construction techniques, and materials. Industrial buildings were shaped by machines, initiated in the 18th century and were designed particularly in different periods with alterations on the functional and stylistic manner (Eyüce, 1999). Industrial buildings of the early period were constructed as stone or brick masonry with wooden floors and mainly multistory (Pevsner, 1976).

First industrial structures were different from today's factories. Flour mills, warehouses, water towers were also the first examples of industrial cityscape (Eyüce, 1999). The spaces of the early industrial buildings were limited due to the structural features. With the development of new systems in the 18th century of steam power and machines, large spaces were needed. Cast iron frames and floor arches were in place instead of wooden and masonry systems. Ditherington Flax Mill (1796) by Charles Bage was the first example of iron-framed buildings (Figures 2-1 b). It has floor arched with previously brick and then concrete infill (Eyüce, 1999). Cossons (2012) identifies the structure as " too precious to lose, too fragile to use". Crystal Palace, on the other hand, was the first example of cast iron prefabricated structure (Figure 2-2 a). Designed by Joseph Paxton, it was built in 1851 in Hyde Park, London for industry exhibition. The spaces between the iron structure were inserted with glass. The building was dismantled after the exhibition and was reinstalled in Sydenham, which burned in 1936 (Köksal, 2005).

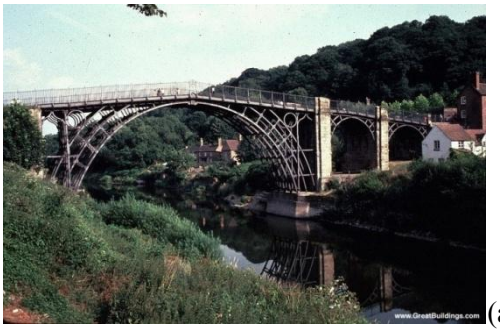
Following, Menier Chocolate Factory has been a great example of the composition of the conventional technique with an iron frame (Figure 2-2 b). This building was designed by Jules Saulnier and built in 1871 in Noisiel. It was the first time that the iron framed system was completely displayed in this building. This design was described as "construction remarquable" by Viollet-le-Duc and the building was accepted as one of the iconic structures of the industrial revolution (Eyüce, 1999).

On the other hand, there have been distinctive examples of industrial plants apart from the rationalism. One of the most common instances has been the steam engine house in Postdam, built between 1841-1843 and designed by Ludwig Persius, looked like a mosque (Figure 2-3 a). Another particular example of orientalist architecture has been Yenidze Cigarette Factory (Figure 2-3 b) by Hermann Martin Hammitzsch, built between 1907-1909 in Dresden (Pevsner, 1976).

Besides the visual variety, rationalist approaches and the need for light in production spaces affected the designs of industrial buildings. Extensive spaces were lightened from the roof. For instance, the hat factory in Luckenwalde (Figure 2-4 a), designed by Erich Mendelsohn, has a roof used for both lightening and ventilation (Eyüce, 1999). Sawtooth roofs also became popular to get the north light inside (Köksal, 2005).

The usage of traditional material with metal structures were intensified in the last quarter of the 19th century and the first quarter of the 20th century (Eyüce, 1999). Also, concrete structures increased beginning from the end of the 19th century. Moreover, transfer and slidable band systems started to be used in the 20th century. Existing multistory buildings became insufficient with this development so the structures evolved as one story extensive spaces which could be enlarged horizontally (Köksal, 2005).

Industrial plants have been designed mainly to encounter the necessities of production. However, this approach affected the workers in a bad manner in time. Therefore, openings were planned to provide the visual relationship with outside for the workers. Lassa tire factory (İzmit) designed by Doğan Tekeli and Sami Sisa in 1975 has been an example of horizontal architecture, which emphasizes on human (Figure 2-4 b). Moreover, residential units, schools, and social facilities were designed together to increase the quality of social life for the workers (Eyüce, 1999). Thus, industrial complexes emerged.


(a)

(b)

Figure 2-1: (a) Iron Bridge at Coalbrookdale[6] (b) Flax mill at Shrewsbury[7]


(a)

(b)

Figure 2-2: (a) Crystal Palace, Hyde Park[8] (b) Menier Chocolate Factory, Noisiel[9]


(a)

(b)

Figure 2-3: (a) Steam Engine House, Postdam[10] (b) Yenidze Cigarette Factory, Dresden[11]

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[6] http://www.greatbuildings.com/cgi-bin/gbi.cgi/Iron_Bridge_at_Coalbrookdale.html/cid_coalbrookdale_001.html

[7] https://www.flickr.com/photos/7382107@N04/492226952/in/photostream/

[8] https://en.wikiarquitectura.com/building/crystal-palace/#crystal-palace-1

[9] https://structurae.net/structures/menier-chocolate-factory

 (a)  (b)

Figure 2-4: (a) Hat Factory Dye and Spinning Works, Luckenwalde[12] (b) Lassa Tire Factory, İzmit[13]

2.2. Industrial Heritage and Conservation

After the industrial revolution, new building materials, construction techniques, and building types appeared in the 18th century. The factories and other related units built in that period had been utilized for production or relevant purposes for many years. However, most of the buildings became unproductive and idle within the years because of different reasons. Nevertheless, these buildings have maintained their importance since they have been indicating the development of the city with regard to technology and industry.

The significance of the heritage was mentioned as;

> "... the buildings and structures built for industrial activities, the processes and tools used within them and the towns and landscapes in which they are located, along with all their other tangible and intangible manifestations, are of fundamental importance" (TICCIH, 2003).

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[10] https://structurae.net/structures/dampfmaschinenhaus

[11] https://www.flickr.com/photos/hans_c_borg/38944692620/in/photostream/

[12] https://www.archdaily.com/582017/fragments-of-metropolis-an-exploration-of-berlin-s-expressionist-history/5499084de58ece50c8000088-luckenwalde-herrmann

[13] http://tekelisisa.com/?portfolio_page=lassa-lastik-fabrikasi

So discussions on conservation of these building types have given rise to new concepts; basically as industrial heritage, industrial archeology and industrial landscape. Moreover, the idea of conservation, in general, generated the notion of the transformation and reuse of these structures.

In this part of the second chapter, these terms will be defined and the scope of the terms will be explained. How they emerged in the world and Turkey and how they had a place in the national and international platforms will be discussed. The issue of industrial heritage conservation will be studied with examples.

2.2.1. Definition, scope and the related terms of industrial heritage

The appreciation of conservation of industrial buildings initiated in Britain where the industrial revolution first began, as mentioned. At first, the process of the detection and recording of these buildings has been called as "industrial archeology" and the buildings have been named as "industrial monuments". However, the concept of "industrial heritage" came into prominence after the conservation of industrial buildings started to be debated on the international platforms (Saner, 2012).

The term **industrial archeology** was first used in 1955 in an article with the same title by Michael Rix in the journal of "Amateur Historian". Rix (1955) mentioned the factories, machines, steam engines, locomotives, canals and railways left behind the industrial revolution as industrial archeology; which symbolized the change in the world. He pointed out that these structures mean charming field of study to be explored. Industrial archeology was identified by Rix as the domain of examining remains and extant structures of the industrial revolution. He also emphasized the importance of documentation and preservation since these physical remains and structures were instructive for the industrialization period.

Cossons (1975), in a similar manner, identified the industrial archeology as "the examination and analysis of the physical remains of the industrial revolution period". He also mentioned the factors of arising the concept as the consciousness of the destruction of the 18th and the 19th centuries' Britain and the interest on new

economic actions of industrial expansion. The physical remains of industrialization; "the engines and machines, factories, mills and warehouses, canals and railways" have symbolized the creativeness and functional accomplishment of the Industrial Revolution (Cossons, 1975). In the early 1960s, some headings were chosen within the scope of industrial archeology, which have been "Coal and Metals, Power, Textiles, Pottery and Glass, Brewing and Distilling, Transport, Building Materials, Agricultural Industry" and following those years "Housing for Industrial Workers, Public Services, Industry of Recreation" were added (Pannell, 1974).

Another researcher Buchanan (2005) mentioned that the interest in heritage started with the declining canals and quarry railways. That continued with the studies of the Newcomen Society from the Science Museum, which was established in 1919 in Birmingham to make researches on technology and history of engineering. The name of the community was originated from Thomas Newcomen, the inventor of the steam engine. The Newcomen Society examined both the technologies of the industrial revolution period and the pre-industrial period. The object was to support the study on the history of engineering and technology (Cossons, 1975).

The concern on industrial archeology was based on early attempts than the concept as many researchers agreed. The steam engines and railway locomotives belonging to the early 1800s were collected and presented in different museums in Britain, such as London, Edinburgh, and York (Cossons, 1975). This shows that the interest in industrial buildings and/or machines could be observed apart from the related concepts. Also, the first individual conservation approach of industrial structures was carried out in the 1940s by the writer L.T.C. Rolt, who attempted for the conservation of canals and railways in England with the other volunteers (Trinder, 1981). Another important study on the conservation of industrial heritage was the Ironbridge which was agreed as the symbol of the industrial revolution. Ironbridge Gorge has included the essential features showing the industrial and architectural development of the 18th century; as the mines, the railway, the blast furnace of Coalbrookdale and the bridge, which was the first iron bridge of the world as

mentioned.[14] Besides, the first international congress regarding the industrial archeology was held in Ironbridge in 1973 (Köksal, 2005).

Hudson (2015) also agreed with the idea of the concept of industrial archeology was shaped in Britain in 1950s; however, the studies regarding the subject were first stand on the documentation of the West Cumberland Coal Trade in 1878 by Isaac Fletcher, an astronomer and Fellow of the Royal Society (Cotter, 2009). The study of Fletcher was named as 'The Archeology of the West Cumberland Coal Trade', which had used the term "archeology"; however, it was uncertain that the study had inspired the formation of the modern term "industrial archeology".

It is seen that before the concept was named and agreed by the majority, the approaches were implemented on industrial remains or buildings even that is called as industrial heritage or industrial archeology. Another discussion about the subject was the extent of the concept. The scope of industrial archeology was debated by different researchers. While some of them accepted that the industrial archeology included the remains and structures of the industrial revolution period, the opponents welcomed the idea of studying all industrial remains without treating unequally. Raistrick[15], for instance, opposed to binding industrial archeology to the industrial revolution period and defined as "the study of the industry of the past through its physical remains" (Harris, 1973). Similarly, the archeologist O.G.S. Crawford adopted the idea that any field of archeology was not limited within dates so the industrial archeology involved the remains of the industry for all periods of the past (Pannell, 1974). Another supportive fact of this approach is that the World Heritage List of UNESCO (United Nations Educational, Scientific and Cultural Organization) has contained industrial heritage sites from different periods without restriction.

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[14] http://whc.unesco.org/en/list/371 last accessed on 20.12.2017.

[15] Arthur Raistrick was a British geologist, archeologist, academic and writer of the book "Industrial Archeology: An Historical Survey". He was interested in industrial remains and scientific archeological techniques for practice. (Harris, 1973)

The comprehensive studies on industrial archeology were grown after the 1950s in Britain. There were classes at the Workers' Educational Association and University Extra-Mural Department, which brought concerned people together. Moreover, the Council for British Archeology (CBA) organized the system to document the industrial heritage before they were destroyed. The Council for British Archeology also set up an Industrial Archeological Research Committee in 1959 in order to coordinate regional studies and advance some strategies for recording. Additionally, the Ministry of Public Buildings and Works established the Industrial Monuments Survey cooperating with CBA to make policies for the recording and preservation of industrial sites. Creating a national record system for industrial buildings (NRIM: National Record of Industrial Monuments) was another valuable study of CBA.

Continuing, the journal of Industrial Archeology, the only national periodical in Britain, published from 1964 and the annual conferences at first held in the University of Bath in 1966 and carrying on were significant progresses guiding the development of the industrial archeology. Finally, in 1974, a national organization, the Association for Industrial Archeology was founded to help the studies of regional groups, present the image of industrial archeology at a national level and persist the annual meetings (Cossons, 1975).

Moreover, another constitution called SIA (The Society for Industrial Archeology) was formed in 1971 "to promote the study, appreciation, and preservation of the physical survivals of industrial and technological past".[16] The society aims to create an interdisciplinary environment with related people to exchange knowledge and public awareness with regular meetings, basically for the industrial heritage of the U.S.

The institutionalization in Britain in terms of the studies on industrial archeology was quite favorable progress. That caused to be set of new organizations related to the subject. TICCIH (The International Committee for the Conservation of Industrial Heritage), for instance, was the first international organization focused on

[16] http://www.sia-web.org/about/mission/ last accessed on 15.06.2019.

the industrial heritage, established in 1978.[17] The aim of the organization has been specified as "to promote international cooperation in preserving, conserving, investigating, documenting, researching, interpreting and advancing education of industrial heritage".[18]

In 2014, the "Memorandum of Understanding" was signed between TICCIH and ICOMOS (International Council on Monuments and Sites) mainly regarding a framework for collaboration of the conservation of industrial heritage; however, it is mentioned at the agreement that both sides had been cooperating with an earlier Memorandum of Understanding since 2000. Beginning with this collaboration, TICCIH became the specialist committee of ICOMOS in respect of industrial heritage.

What are the areas of collaboration between ICOMOS and TICCIH were summarized as;

- To create a network between information and research respecting conservation of industrial heritage,
- To be in association to constitute the "World Heritage List" concerning industrial heritage and its components,
- To provide a partnership to develop conservation principles about industrial heritage.

[17] Indeed, in 1973, FICCIM (First International Congress on the Conservation of Industrial Monuments) was organized with the suggestion of Neil Cossons who was the director of Ironbridge Gorge Museum at that year. FICCIM was the initiation of TICCIH. Following, SICCIM (Second International Conference on the Conservation of Industrial Monuments) was set in 1975 to discuss the subject on the international platform. The third one of these meetings was held in 1978 with the name of TICCIH (The International Committee for the Conservation of Industrial Heritage) and also a committee was established with the same name. The importance of this committee was that the concept of "industrial heritage" was used instead of "industrial monuments". (Saner, 2012)

[18] http://ticcih.org/about/about-ticcih/

TICCIH prepared the Nizhny Tagil Charter for the Industrial Heritage in 2003 in order to define the concepts and specify international standards and methods for industrial heritage and industrial archeology in accordance with the Venice Charter (1964). The charter, as the first international reference text, has been consisted of seven parts as;

1. Definition of industrial heritage
2. Values of industrial heritage
3. The importance of identification, recording, and research
4. Legal protection
5. Maintenance and conservation
6. Education and training
7. Presentation and interpretation.

The industrial heritage concept was defined in the text 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 places used for social activities related to industry such as housing, religious worship or education" (TICCIH, 2003).

Industrial archeology was also described with a broader definition.[19] Secondly, values of industrial heritage have been determined as universal value, social value,

[19] "Industrial archeology is an interdisciplinary method of studying all the evidence, material and immaterial, of documents, artefacts, stratigraphy and structures, human settlements and natural and urban landscapes, created for or by industrial processes. It makes use of those methods of investigation that are most suitable to increase understanding of the industrial past and present" (TICCIH, 2003).

technological and scientific value, aesthetic value, that are intrinsic to the site. Rarity and early or pioneering examples have been also special value.

In the third part, it mentions the importance of inventories which should be easily searchable and freely accessible with computerization and on-line access. Recording is also a must before any interventions. Making archeological research, assessing industrial buildings to gain public acceptance, defining policies for the protection, identifying the sites in risk and international co-operation have been necessary studies. Legal protection, on the other side, should include "plant and machinery, below-ground elements, standing structures, complexes and ensembles of buildings, and industrial landscapes". Adaptation and re-use have been appropriate for the survival of industrial heritage. Besides, governments should have advisory bodies for the conservation of these sites. Public participation has been significant for awareness. For the maintenance of the sites, preserving integrity has been the foremost criteria with the preservation in situ (TICCIH, 2003).

Moreover, the Dublin Principles with regard to conservation of industrial heritage sites, structures, areas, and landscapes was agreed with the joint venture of ICOMOS and TICCIH in 2011. Dublin Principles mention Modern-Era Industrial Revolution as distinct from the Nizhny Tagil Charter. It is seen that there is an extended definition of industrial heritage as;

> "The **industrial heritage** consists of sites, structures, complexes, areas and landscapes as well as the related machinery, objects or documents that provide evidence of past or ongoing industrial processes of production, the extraction of raw materials, their transformation into goods, and the related energy and transport infrastructures. Industrial heritage reflects the profound connection between the cultural and natural environment, as industrial processes – whether ancient or modern – depend on natural sources of raw materials, energy and transportation networks to produce and distribute products to broader markets. It includes both material assets – immovable and movable –, and intangible dimensions such as technical know-how, the organization of work and workers, and the complex social

> and cultural legacy that shaped the life of communities and brought major organizational changes to entire societies and the world in general" (Joint ICOMOS- TICCIH, 2011).

There is the point that industrial heritage has consisted not only the remains or ancient but also the ongoing and modern. Besides, immovable and movable terms were specified as different from the first charter. Researching and documenting methods were mentioned as more detailed way. The term 'management' was used with the conservation of industrial heritage. Moreover, there is an emphasis on active industrial structures or sites in the field of research, training, interpretation and conservation. As well the term "landscape" has been used with industrial heritage with regard to one of the contents consisting it. At this point, it is significant to mention the concept of industrial landscape which is the type of cultural landscape.

> "Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."[20]

Industrial landscape can be simply defined "as a landscape that has been modified by the effects of human activity" dominated by industry (Stuart, 2012).

Industrial heritage has not generally limited to an individual building. It has needed an area where production was organized, transformed or distributed. So the industrial landscape has covered these operations referring to an area larger than a single factory site but less in scale than a region. There have been three types of cultural landscapes as "designed, evolved and associative" defined by the World Heritage Committee. Stuart (2012) applied these categories into industrial landscapes. So designed industrial landscapes have consisted of industrial estates with residential and commercial areas. They were designed with necessary service spaces independent from the production process but supporting it in a way. Lowell in Massachusetts could be an example of designed industrial landscapes. Evolved

[20] COE, 2000. Retrieved from https://rm.coe.int/1680080621

landscapes, on the other hand, have been the results of social, economic, administrative or religious activities divided into two as relic and continuing landscape. As basically understood from their titles, relic industrial landscapes could refer places that their activities have come to an end while continuing industrial landscapes have been still in progress by showing their evolution in time. Stuart (2012) exemplifies the Ironbridge Gorge as a classic relic industrial landscape while Ruhrgebiet is continuing industrial landscape with the active production. Lastly, associative industrial landscapes have been attributed to the industrial areas having prominent and distinctive features. Mount Alexander in Australia could be a case of this kind with its major gold rush in 1850s (Stuart, 2012).

Industrial landscapes have specific characteristics, shapes and textures which were not formed randomly. They show certain formation processes connected with "shifting modes of production, distribution, different social orderings and more" (Riesto, 2018, p.14). The industrial activities change the environment starting from the immediate surroundings which form its landscape. Thus industrial landscapes are significant as the structures since they need to be handled together. However, the traces of the production on landscapes have been wiped away more easily. "Re-reading and re-imagining" the industrial landscape gain importance in this respect (Riesto, 2018). The conscious preservation and demonstration of the traces in post-industrial landscapes should be part of the conservation. The International Building Exhibition IBA Emscher Park in the Ruhr Region set international standards in the 1990s (Tempel, 2012). The standards contribute the environmental, economic and social transformation of an industrial site.

Following the Dublin Principles, TICCIH published a new declaration in 2012 regarding Asian industrial heritage, called as 'Taipei Declaration for Asian Industrial Heritage'. It was a specific declaration indicating that the industrial development and the structures in Asia have been different from the others, that need conservation strategies. It is mentioned that "industrial heritage is associated with the life history, memories, and stories of local people and social changes" (TICCIH, 2012).

In addition to ICOMOS and TICCIH, there are other international organizations related to industrial heritage. The Council of Europe has been a local institution working within the continent. The concept of industrial heritage was on the agenda around 1980. It was mentioned in "Recommendation on the Protection and Conservation of the Industrial, Technical and Civil Engineering Heritage in Europe" (1990) that industrial heritage consisted of a significant part of Europe's cultural heritage so it should be conserved with appropriate precautions and legal regulations.[21] Besides, the conference headed as "The industrial heritage, what policies?" was conducted in Lyon in 1985, which was the first event of the council that industrial heritage was approached apart from cultural heritage (Saner, 2012).

Furthermore, DOCOMOMO [22] (Documentation and Conservation of Buildings, Sites and Neighborhoods of the Modern Movement) has been another international organization focusing on modern buildings. Industrial heritage has not been the main concern for the organization; however, the studies could intersect due to the period of the buildings. For instance, Zeche Zollverein coal mines in Essen was listed as World Heritage Sites of UNESCO with the preambles of being one of the important examples of modern movement (Saner, 2012). Also, many studies regarding industrial heritage were presented in the IX. conference of DOCOMOMO, which hold in Ankara and İstanbul.

Moreover, the European Union and E-FAITH (European Federation of Associations of Industrial and Technical Heritage) have been other organizations related to

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[21] https://www.culturanorte.pt

[22] DOCOMOMO is a non-profit organization constituted by architects Hubert-Jan Henket and Wessel de Jonge at the Technical University in Eindhoven in 1988. They have determined the missions as to:
"-act as a watchdog when important modern movement buildings anywhere are under threat -exchange ideas relating to conservation technology, history and education -foster interest in the ideas and heritage of the modern movement -elicit responsibility towards this recent architectural inheritance " (https://www.docomomo.com).

industrial heritage. The overall policy of the European Union has covered the studies on industrial heritage under the heading of cultural heritage. "Culture 2000" has been the most comprehensive project with regard to industrial heritage (Saner, 2012). E-FAITH, on the other side, has been a local and international body for the continent, established with the disunite from TICCIH. That creates a co-operation where people can exchange experiences, learn and support the industrial heritage. [23]

Last but not least, ERIH (European Route of Industrial Heritage) has been the project aiming to exhibit industrial heritage in Europe by generating networks between them and creating trip routes. The first approach initiated with the Ruhr valley in Germany (Saner, 2012). The system has focused on tourism by preparing a master plan which has included anchor points having exceptional historical importance as milestones of European Industrial Heritage.[24] Regional routes and European theme routes have been also determined, which have been quite attractive and developing to expand. SantralİstanbuI has been specified as anchor points as the only example from Turkey. Besides, Aviation Museum, Railway Museum, and Rahmi Koç Industrial Museum from İstanbul; Çamlık Outdoor Railway Museum from İzmir; and Seka Paper Mill from İzmit have been present at the master plan of ERIH.

2.2.2. The awareness of conservation of industrial heritage

The main discussions before the concepts were the conservation of industrial buildings whether they should be accepted as heritage or not. Industrial buildings were regarded as ugly, unnecessary and dirty for a long time since they were thought not to have spectacular architectural features as other monumental buildings (Föhl, 1995). In the meantime, Alois Riegl was the first to analyze on the values of buildings in 1928 in order to understand the nature of the monuments.

[23] http://www.e-faith.org/

[24] https://www.erih.net

Riegl defined the historical monument as:

"Everything that has been and no longer (...) in accordance with the modern notion that, what has been can never be again, and that everything that has been constituted an irreplaceable and irremovable link in a chain of development" (Soğancı, 2001).

His studies made an important contribution to the modern conservation theories in general sense. As for that matter of industrial heritage, "developmental value", "relative-art value" and "use value" became prominent due to the reuse of industrial buildings (Cengizkan, 2006). Besides, Richards (1958) mentioned the aesthetic features in industrial buildings with the argument of vernacular techniques and materials used by practical intentions. Art value of industrial heritage was noticed in time since they became familiar to modern people as changing their perception and relation (Cengizkan, 2006). The terms "machine aesthetic" and "factory aesthetic" of Reyner Banham[25] also supported the art value of industrial buildings.

After the industrial buildings were accepted as significant with their mechanical equipment and integral structure as demonstrating the socio-economical and technological development of a country alongside with the distinct architectural features having quite a few values, they were treated as heritage.

The awareness of industrial buildings and/or sites commenced with the appreciation of their values as to be conserved as cultural heritage. The reasons for preservation could be stated as:

- Material heritage as an intrinsic value for the evidence of the past,
- Documentary value as physically standing,
- Social and cultural significance providing the sense of history and identity,

[25] Reyner Banham referred many industrial buildings of different architects and with different characteristics in the book "Theory and Design in the First Machine Age". In "the factory aesthetic" section, he compared certain industrial structures starting from Fagus Factory by Gropius and Meyer as pioneering example of the Modern Movement. He mentioned structural techniques and materials and how they were used in such examples as aesthetically. (Banham, 1960, p. 79-87)

- Technological, scientific or aesthetic value,
- Intangible records of industry,
- Universal value as "World firsts" (Cossons, 2012).

The consciousness of conserving these structures thoroughly increased with the destruction after the World Wars. Therefore, national and international organizations -most of them were mentioned in the previous section-, academicians, experts, civil institutions, architects, engineers, and the public were started working on. Initiating with Britain, Germany and the United States accepted industrial buildings as heritage. France followed this by recording the industrial buildings as heritage from 1983. In 1986, Holland established a national center in order to gather information about industrial heritage focusing on between the years 1850 and 1945. The concept became widespread in Eastern Europe countries since 1970. The studies in Belgium, on the other hand, were concentrated on water and wind mills.

In the meanwhile, international meetings were held with regard to the conservation of industrial heritage. As mentioned in the previous section, TICCIH meetings started in 1973 and continued. On the other side, ICOMOS in cooperation with ICOM (International Council on Museums) and the Ecomuseum at Le Creusot had the first international symposium on "The Industrial Heritage and Modern Society, Sites - Monuments - Museums" in Le Creusot in 1976.

The meeting had the sessions as 'Scientific Research and the Industrial Heritage', 'Conservation of Industrial Buildings, Sites and Machinery' and 'Presentation and Animation of Industrial Sites and Buildings' (ICOMOS, 1976). The symposium came with the definition as;

> " All real-estate property and equipment pertaining to industrial activity; this activity requires interdisciplinary methods of research. Consequently, the term INDUSTRIAL ARCHEOLOGY designates all the investigations carried out."

Besides, the governments were warned in order to consider industrial buildings as cultural heritage and be aware of the frequent destructions (Hinsch, 1980).

ICOMOS and TICCIH meetings were proceeded in different countries such as Germany, France, Austria, Belgium, Spain and so on with the various subjects of "iron usage in architecture; evaluation of industrial heritage; policies on industrial heritage; industrial landscapes; conservation of railways, historic port cities; marine technologies and transformation of industrial heritage".[26]

In 1978, the Ministry of Culture in Poland also assembled a conference about the experts on the conservation of historic technical monuments (Köksal, 2005). Likewise, the Council of Europe (CoE), as mentioned in the previous section, held assemblies on the protection of the industrial heritage, the first of which was in 1979. Recommendations for the Committee of Ministers were based on "establishing definition of the aims of industrial archeology, proposing means of research and classifications of the industrial heritage, making analysis of the industrial record in coordination with other researches". Also, member states were called on "providing financial support for the preservation of industrial monuments; ensuring the conservation legislation as covering all significant industrial monuments without distinguishing the period; supporting education in this field" (The Council of Europe, 1979).

Following, CoE instructed two experts in 1983 "to take stock of existing problems and find solutions due to the industrial heritage" and stated that these studies should be examined early in 1984 to serve a basis for future activities (The Council of Europe, 1983). Architect Manfred Wehdorn and Engineer Jose Antonio Fernandez Ordonez were assigned to evaluate the condition of industrial heritage. In this respect, Wehdorn studied on the northern Europe (Germany, Austria, Belgium, Denmark, Holland, England, Ireland, Sweden, Iceland, Liechtenstein, Luxemburg and Norway) while Ordonez focused on the southern countries of Europe (France,

[26] Köksal (2005) prepared a table on international meetings about the conservation of industrial heritage, organized between the years of 1973 and 2003. It is referenced for more detailed information on the subject (p. 119-121). Moreover, congresses of TICCIH could be seen in detail from the official website of http://ticcih.org/congress-proceedings-transactions-and-reports/.

Spain, Italy, Cyprus, Malta, Portuguese, Turkey, and Greece).[27] In brief, most of the industrial heritage in northern Europe have been conserved with legal protection mostly without a specific act. Wehdorn proposed a legal system for the countries as in England; documentation of endangered industrial heritage; providing education concerning the subject; creating a center for coordination; and ensuring the experts to work on the implementations. Industrial heritage in southern Europe, on the other hand, have been relatively less in number and there has been no act of law for the conservation of industrial heritage. General problems regarding the conservation were determined by Ordonez as abandonment and not appreciating the structures; lack of legal protection, budget and experts; not standardization on implementations (Köksal, 2005). Mentioned as one of the southern countries of Europe, the legal condition in Turkey and the awareness on the conservation of industrial heritage will be specifically discussed in the following section.

In 1985, Council of Europe in cooperation with ICOMOS France organized the international colloquium headed as "The industrial heritage, what policies?". Participants proposed an enumeration including whole of Europe in order to understand the existing situation of industrial heritage. Documentation and recording of industrial sites with all of the equipments and developing tough policies for conservation were also suggested (Ökem, 2000). According to the report of TICCIH in 1985, 14.000 industrial heritage in England, 254 in Austria, 200 in Sweden, around 400 in Poland and 1200 in former Czechoslovakia were registered (Köksal, 2005). The more comprehensive assembly was held by the Council of Europe in 1990 as "the Protection and Conservation of the Industrial, Technical and Civil Engineering Heritage in Europe". Recommendation aimed to

[27] Köksal talked about the scope and outcomes of the studies of Wehdorn and Ordonez in a comprehensive way. There is a table concerning the legal situation of the industrial heritage; numbers of conserved industrial heritage, museums, reused buildings and workers' housings with regard to the countries that Wehdorn studied. It is referenced for comprehensive information on the subject. (Köksal, 2005, p. 110-114)

consider buildings, technical monuments, sites or objects together with the physical environment, knowledge, techniques and way of life.[28]

The international meetings have proceeded at every turn with regard to the variability of the fields, which has mentioned above. Starting with the 19th century, the industrial heritage of the 20th century was included in the discussions. In the meanwhile, industrial buildings and the structures of the 20th century were the most endangered group of structures specified in the reports of ICOMOS "Heritage at risk" (ICOMOS, 2001). Following, the international symposium on "Conservation of the 20th Century Architectural and Industrial Heritage" was held in İstanbul, Turkey by ICOMOS Turkey in 2002. It is because in relation with the 20th century architectural and industrial heritage, the authorities of DOCOMOMO and TICCIH took place in the symposium. The significance of cooperation, sharing information and experiences; the studies regarding the inscription of buildings dated this period by UNESCO; the determination of intervention limitations were mentioned in the meeting (Ahunbay, 2002).

Over the studies through the years beginning from 1973, TICCIH released a new consideration of industrial heritage in the sixteenth international congress in 2015, titled "Industrial Heritage in the Twenty-First Century, New Challenges". The ambition is to create "the digital rendering" for the industrial heritage with the help of the member states, that people could access the information via the internet. This

[28] Recommendation included measures for the identification and conservation of heritage, also measures to alert the public and to promote co-operation. Making detailed surveys, determination of significant sites or places, creating educational programmes and a better use of human resources have been necessary for identification of the technical, industrial and civil engineering heritage. Selection of the heritage to conserve was another matter that has accepted "to ensure a balanced representation of the different branches of production". In order to conserve these heritage, appropriate legislative measures, a certain land policy, research programs at regional level have been essential. To alert the public is also important by promoting the training and organizing campaigns. Providing information on the historic value of this heritage, benefits of new uses, development of industrial tourism by the conservation such as creating cultural routes were mentioned in addition. The significance of co-operation was also emphasized (The Council of Europe, 1990).

will be a valuable source "to conduct research, to compare, and to discover the constantly evolving and amazing field of Industrial Heritage" (Dufrense & Douet, 2015). In the national reports, twenty-four member states have been acknowledged the existing situation of industrial heritage in their countries as the first study of a digital book. These reports have basically consisted of the aspects of industrial heritage, their protection and management, education and training, the principal projects and related publications.

Last but not least, the inscribed sites of UNESCO have included industrial heritage, which shows the significance of it. World Heritage List having the industrial related sites has helped to understand their values and increase the awareness of the conservation of industrial heritage.

As to finish, " industrial heritage demands knowledge, great judgment and real understanding. From understanding grows valuing; from valuing grows caring: and from caring grows enjoyment and inspiration" (Cossons, 2012).

2.2.3. Conservation approaches of industrial heritage

The arising of the concepts related to the industrial heritage and the increasing consciousness towards them have caused the discussions on the conservation of these structures and sites. After the understanding of the industrial heritage with surveying, detection, and documentation, the significant issue is to ensure the survival of them. Criteria were determined with the charters or declarations of related organizations as it was done for cultural heritage in general terms. Maintenance and conservation sections have been quite explanatory about the interventions and techniques of preservation.

In brief, preserving functional integrity, making reversible interventions, being economic and sustainable, respecting the values, and preservation in situ have been significant aspects. Moreover, examining the process of change for the structure, and having the documentary records both for the building and human skills have been meaningful attitudes. However, to provide the continuity of the building has been a prominent idea. Hence, "appropriate original or alternative and adaptive use

is the most frequent way and often the most sustainable way of ensuring the conservation of industrial heritage sites and structures" (Joint ICOMOS- TICCIH , 2011). Providing new usage for these sites has been usually acceptable to make certain the survival unless the site or the structure has a special historical value (TICCIH, 2003).

At this point, the concepts of 'adaptive-(re)use' and 'transformation' could be mentioned in brief as to be mostly used for the conservation practices of industrial heritage. First of all, **conservation** means:

> "all the processes of looking after a *place* so as to retain its cultural significance" (ICOMOS, 1999).

Cultural significance is also defined as "aesthetic, historic, scientific, social or spiritual value for past, present or future generations". Continuing with the Burra Charter, "*Adaptation* means modifying a place to suit the existing use or a proposed use" and "*Use* means the functions of a place, as well as the activities and practices that may occur at the place" (ICOMOS, 1999).

Thus, adaptive reuse, with a basic definition, is the act of finding a suitable function for an unused structure. Moreover, in the Heritage Conservation Terminology of ICOMOS,[29] **adaptive reuse** is defined as;

> 1- Implies the recycling of an older structure often for a new function. Extensive restoration or rehabilitation of both the interior and exterior is usually involved. *(In The Heritage Canada Foundation - Preservation Strategy No.3, 1983).*
>
> 2- Using an old building for a new purpose or function. Sometimes involves extensive alteration to both the exterior and interior. *(In Heritage BC - http://www.heritagebc.ca/resources/guides-tips-1/terms-definitions)*

[29] http://ip51.icomos.org/

3- The conversion of outmoded or unused structures, such as buildings of historic value, and objects, such as software, to new uses or application in new contexts. *(In Getty Research - Art & Architecture Thesaurus Online)*

New use is supposed to need minimal change so as not to be ahead of the conservation of the building. The re-functioning of the buildings is significant and influential way of protecting historical buildings from demolition. Industrial heritage has been generally adapted easily to their new functions due to the flexibility of their architectural characteristics having large spaces. However, it is necessary to keep the integrity of the building as always mentioned in the criteria of conservation.

While defining the decisions of adaptive reuse, some specifications could be made as to evaluate of industrial heritage:

- "with their visual significance in urban and rural areas,
- with their cultural significance of new use,
- with the design quality of functional transformation" (Altınoluk, 2000).

Following, a similar concept that is encountered in the conservation context has been transformation. The transformation is defined as 'a complete change in the appearance or character of something or someone, especially so that thing or person is improved'.[30]

In accordance with the subject, the term can be used as changing the way of conceiving the relationships between the place, instability of the place, mostly as a result of cultural development (Petroncelli, 2008).

At the conference named "Heritage in Transformation" by ICOMOS, it was mentioned that **transformation** consists of;

- the changes in understanding the term 'heritage',

[30] https://dictionary.cambridge.org/

- the changes in functions fulfilled by the heritage,
- the changes in principles and forms of conservation and heritage protection,
- the changes in circumstances in which the heritage is protected.[31]

Besides, the transformation is used as a subsidiary term in many other aspects such as social, economic, demographic or structural. However, in general terms, the transformation adapts the city to new functions with an integral and multidisciplinary approach, which comes with the statement of 'urban transformation'. It is the process of the change in the natural and built environments with regard to developing the conditions both for the people and the structures.

Commonly, the term 'adaptive use' is chosen for individual buildings while 'transformation' covers sites, districts, landscapes together as referenced to the meaning of 'urban transformation'. However, in the end, both concepts meet with the same concern, which is the "conservation of heritage" as the main purpose. Therefore, either adaptive use or transformation, they were used as a means of methods for the maintenance and preservation of cultural heritage in general.

In this regard, Venice Charter stated the principles to take into account new uses of cultural heritage as a supporting expression:

> "Article 5. The conservation of monuments is always facilitated by making use of them for some socially useful purpose. Such use is therefore desirable but it must not change the lay-out or decoration of the building. It is within these limits only that modifications demanded by a change of function should be envisaged and may be permitted" (ICOMOS, 1964).

[31] The conference was conducted by ICOMOS Poland in 2015, aiming to analyze existing problems and establish diagnoses of the future with a description of changes for heritage protection over the last 50 years and finding precautions. The list was directly referenced. (https://www.icomos.org/images/DOCUMENTS/Secretariat/2015/ICOMOS_50th_anniversary/ICOMOS_Polska_ENG-Information-Conference-Heritage-in-transformation.pdf)

New uses should consider "the significant material, components and patterns of circulation and activity" (Joint ICOMOS- TICCIH, 2011).

As well as the concepts of adaptive use and transformation, museums have been other ways for the conservation of industrial heritage. Indeed, the terms of industrial archeology and industrial heritage have been quite recent subjects compared to the museum studies relating these structures and/or sites.

First action on this context was the technical museum in Paris, set up in 1794 by abbot Henri Grégoire and called "Conservatoire national des arts et métiers".[32] Some key dates were given on the official website as that first courses offering in mechanics, applied chemistry and industrial economics in 1819, following first research laboratories in 1852 and goes on. Today it serves as a training unit having a large network. That was the first study related to the industry; however, the establishment of the technical and industrial museums continued. At this point, the difference between technical museums and industrial museums could be determined. Technical museums give information about the factory and production techniques, also including the related products. While industrial museums also give the information on social, economic and technical developments of the period; daily lives of workers and daily functions of products (Föhl, 1995).

After a brief explanation of the most encountered terms with regard to conservation, it is relevant to continue with the conservation practices for the industrial heritage. In this respect, Köksal (2005) stated four types of conservation methods of Höhmann that have been used for the industrial heritage:

1. The conservation of industrial heritage with no intervention or minimum intervention to preserve as it has been without giving a new function.
2. The conservation of industrial heritage with minimal changes and giving the function close to its original use.
3. The conservation of industrial heritage with the museum function.

[32] http://www.cnam.eu/site-en/

4. The conservation of industrial heritage with adaptive re-use.

When these methods have been assessed, the most preferred practices for the conservation of industrial heritage have been adaptive re-use or giving the museum function to the structures and/or sites. There have been quite a lot of examples of that industrial heritage which are out of date have been converted into museums in many countries. Besides, giving a new function to the unused building has been the most effective way as it was mentioned before. On the other hand, the conservation of the industrial heritage without a new function and intervention could be mostly possible for the structures such as bridges, railways, etc. Thus, other structures have been quite likely utilized as museums in the end; however, the scope of intervention differs with the third method. On the other side, giving a similar function to the structure compared to its original use could be preferred for the industrial heritage that has not lost its function. It is not possible to survive the original function in many cases since it is not sustainable anymore.

In this respect, a few cases were chosen as examples of Höhmann's list and they were explained in brief. While determining the cases, the structures and/or sites were handled from different countries with different characteristics. The study of ERIH was used as the source since there have been excessive works related to industrial heritage. The representative ones of the countries have already been compiled by ERIH, which is easier to access more information. Additionally, urban scaled cases were handled in detail to explain the adaptive re-use examples. At this point, three examples of various components including mixed uses were chosen from U.K, America, and China. All of these cases have been significant for their countries having different processes of transformation.

To start with the case of minimum intervention, the **Völklingen Ironworks** in Saarland/Germany could be an instance which has been preserved as it stands (Figure 2-5). Ironworks was first established in 1873 and it was enlarged during the years as covering some 6 ha until the production stopped in 1986. In 1986, the Saarland Council of Ministers granted the preservation of important parts after the

shutdown.[33] The site was the only undamaged example of an integrated ironworks of the 19th and the 20th centuries of western Europe and North America. The ironworks was inscribed and added to the World Heritage List in 1994. Today, it has been used as a museum also hosts cultural events and exhibitions (Figure 2-6). The plant has been preserved with the act of "the Protection and Care of Monuments" since 1987. A regular team has also been in charge of the protection and maintenance of the site. The team has been assigned for supervising the site, conservation of rusting ironworks, regular analysis of the plant, organizing the events and safeguarding of the monuments.[34]

Figure 2-5: Völklingen Ironworks, Saarland- Germany[35]

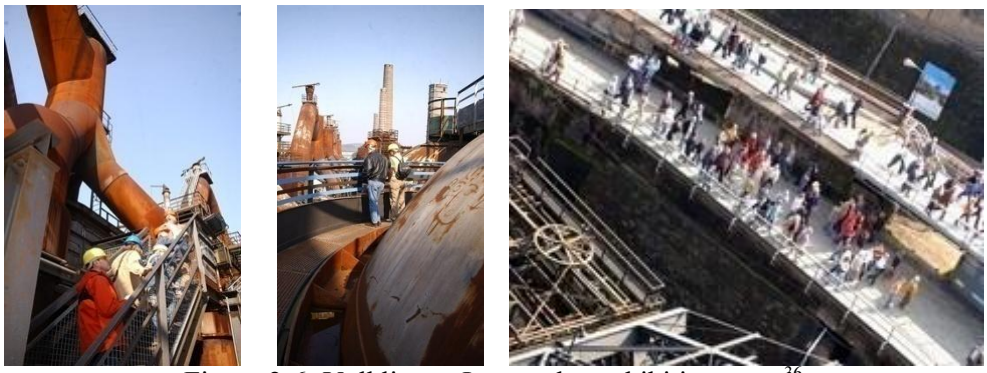


Figure 2-6: Völklingen Ironworks, exhibition areas[36]

[33] The process of Völklingen Ironworks between the years of 1873 and 1986 could be seen in https://www.voelklinger-huette.org/en/fascination-world-cultural-heritage/the-history/.

[34] https://whc.unesco.org/en/list/687/ last accessed in 09.07.2019.

[35] https://whc.unesco.org/en/documents/120824

[36] https://www.voelklinger-huette.org/en/world-cultural-heritage-site-voelklingen-ironworks/

The Jackfield Tile Museum, on the other hand, could be a case for active industrial heritage (Figure 2-7). Indeed, the building was the old Craven Dunnill Encaustic Works Factory which was established in 1872 in Ironbridge, Shropshire, UK (Kapp, 2016). The factory stood within the Ironbridge Gorge World Heritage Site, famous with its ceramic floor tiles and decorative wall tiles but it was abandoned in 1951 with the ending of the British tile industry during the post-war period. However, the Ironbridge Gorge Museum Trust rehabilitated the building in 1983 and advised Craven Dunnill Jackfield to involve and produce tiles (Kapp, 2016). Now, the building has been both a working factory and a museum. The production has continued at the lower floors and the historic tiles have been demonstrated at the upper floors (Figure 2-8). In this case, Kapp (2016) mentions that historic industrial plants have been best used with their original functions which means "the intangible heritage" remains.

Figure 2-7: Jackfield Tile Museum, Ironbridge, UK.[37]


(a)

(b)

Figure 2-8: (a)[38] (b) Jackfield Tile Museum, inside (Kapp, 2016)

[37] https://www.shropshire-guide.co.uk/places/jackfield-tile-museum/ last accessed in 16.07.2019.

[38] https://www.artfund.org/whats-on/museums-and-galleries/jackfield-tile-museum last accessed in 16.07.2019.

Following, the conservation of industrial heritage with the museum function can be exemplified. Having the original pieces of equipment and machinery in the industrial structure have been significant aspects in this group to show the production process.

Santralistanbul is the example from Turkey, a part of which was converted into the Museum of Energy from Power Plant (Figure 2-9). Silahtarağa Power Plant was established in Kağıthane, İstanbul in 1913 in order to produce electricity for the city, as the first urban-scaled power plant in Ottoman Empire.[39] The complex included lodgings, social facilities and green areas along with the production units and the social units (Kaşlı, 2009). The building was registered in 1991 as a cultural heritage by the conservation council (Köksal, 2005). Along with the museum, Santralistanbul complex has also included a cultural center, cafe, concert hall, workshops, residential, administrative and educational units of Bilgi University[40] (Kaşlı, 2009). The studies have been conducted with the association of non-governmental organizations, public and private sectors between 2004 and 2007.[41] The museum of energy was opened in 2007 as the first industrial archeology museum of Turkey. The first two engine rooms, built in 1913 and 1921, have been the components of the complex that were transformed into the museum. After the production ceased in 1983, the cleaning of the corrosion of machinery and turbine generators was the first pace of conservation.[42] Engine rooms were preserved to a great extent and visitors could observe the turbine generator groups of "AEG, Brown Boveri, Siemens and Thomson Houston", which were the leading technology of the period (Figure 2-10). Besides, the control room was conserved

[39] https://www.santralistanbul.org/en/about/ last accessed in 17.07.2019.

[40] The Ministry of Energy and Natural Resources allocated Silahtarağa Power Plant to İstanbul Bilgi University in 2004. The project was part of the santralistanbul campus of the university. (https://www.erih.net/i-want-to-go-there/site/show/Sites/santralistanbul-museum-of-energy/ last accessed in 17.07.2019)

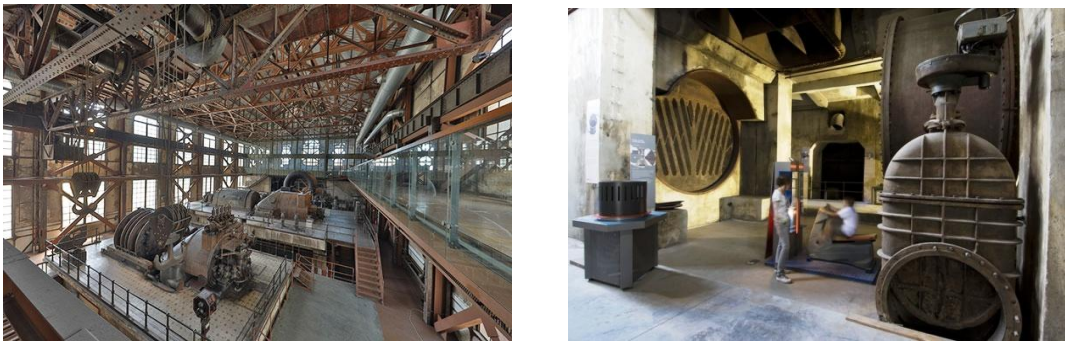
[41] https://www.santralistanbul.org/en/silahtaraga-power-plant/ last accessed in 17.07.2019.

[42] https://www.santralistanbul.org/en/energy-museum/ last accessed in 17.07.2019.

intact with all the devices and the missing or damaged parts were marked in their original locations.[43] The restoration principle has been the minimum intervention. There was only the addition of "a footbridge for visitors and earthquake-resistant steel reinforcements" for the engine room.[44]

(a) (b)

Figure 2-9: (a) Part of Santralistanbul complex, (b) Museum of Energy.[45]



(a) (b)

Figure 2-10: (a) Museum of Energy- inside, (b) Ground Floor.[46]

Lastly, the conservation of industrial heritage with re-use was the final method specified by Höhmann. The derelict industrial heritage needs regular maintenance and repair. The reuse of these buildings and/or sites has been one of the answers for

[43] https://www.santralistanbul.org/en/energy-museum/ last accessed in 17.07.2019.

[44] https://www.erih.net/i-want-to-go-there/site/show/Sites/santralistanbul-museum-of-energy/ last accessed in 17.07.2019.

[45] https://www.santralistanbul.org/en/about/ last accessed in 17.07.2019.

[46] https://www.santralistanbul.org/en/energy-museum/ last accessed in 17.07.2019.

the conservation, that has been credible for the cultural heritage for many years. The industrial buildings have been the most easily adaptable structures for new functions; like warehouses, water mills and malt houses. Most of the mills and factories were built of fire-resistant materials with regular window organization to get natural light (Palmer & Neaverson, 2002). Besides the physical convenience of these structures, the reuse of industrial buildings provides sustainability. Moreover, these buildings are attractive for re-use both with their structural and aesthetic features and the memories they have formed (Cossons, 2012). In the urban scale, post-industrial sites in the world have also become part of various transformation projects. Their historic zones were discovered as ideal sites for the development of new urban areas.

The London Docklands

As a pioneer case, the docklands has been one of the largest urban renewal project inspiring the latter plans, with mixed-use including residences, offices, museums, and so on. The docks were formerly part of the Port of London, situated in the east and southeast of the city, which was the world's largest port at that time but became a derelict area. Although it was the largest one, the port activities in London had been focused within the approximately 800-meter long section of the Thames between London Bridge and the Tower at first (Meyer, 1999). The lack of space and unprotected area of the first dock created the need to extend the current limits of the dock section, thus new docks were added in time along the Thames River. In Figure 2-11, the dock construction between the years 1802 and 1921 has been illustrated schematically. The docks were being used in order to build and repair the ships. With the extension of the port, manufacturing industry including such as coal and gas factories, flour mills were placed on the site along with the warehouses related to the international trade. However, the London docklands lost its function from the late 1960s thus one of the largest sites for urban development was formed (Burton, 1986). The area was evacuated almost completely within fifteen years beginning from 1967. The Docklands Joint Committee (DJC) was founded in 1974 by the Secretary of State for the Environment to plan the redevelopment of docklands and the committee announced the London Docklands Strategic Plan (LDSP) in 1976

(Figure 2-12), which was the first phase of the development.[47] The essential points of the plan were large-scale residential areas, expansion of the London underground, maintenance and restructuring the current industry, increased recreation areas, appropriate function for the banks of the Thames (Meyer, 1999). In figure 2-12, it is seen that the docklands were functionalized with housing and industry merged with open spaces. The DJC paid regard the requests of local people as a strategy for redevelopment. However, it was not so successful in achieving its short-term goals mostly due to the lacking resources supplied by the central government.[48] In 1981, on the other side, the London Docklands Development Corporation (LDDC) was formed by the Conservative Government as responsible almost for the same area, which considered subsidizing private investors instead of the needs of residents (Burton, 1986). The LDDC dealt with the docklands between 1981 and 1998 by publishing Development Framework and producing annual reports. The Development Framework provided the opportunity to take action in a more flexible way than land-use plans. Also, both the local people and developers could understand and utilize it. For the urban development process, the area was divided into four as Wapping and Limehouse, Surrey Docks, Isle of Dogs and Royal Docks (Figure 2-13). Additionally, Bermondsey Riverside and Beckton were redeveloped by the LDDC.

Meyer (1999) states that the LDDC had four different stages of spatial strategies between 1981 and 1995 as:

- "A balanced urban planning concept as a whole,

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[47] https://alondoninheritance.com/tag/docklands-joint-committee/, https://www.londonsroyaldocks.com/londons-royal-docks-history/ last accessed in 19.07.2019.

[48] The DJC made a great effort for "public involvement" by establishing a "docklands forum" to consider the demands of local people; however, the effect of public was basic. The committee encountered some constraints on "advertising industrial sites" and discharge of the area by the landowners. In the end, the main issue mentioned for the failure was not to have enough political support from the central government. (Burton, 1986)

- An urban plan restricted to the scale of an enclave,
- The development of a new centrality,
- A new relationship between the structure and shape of the city."

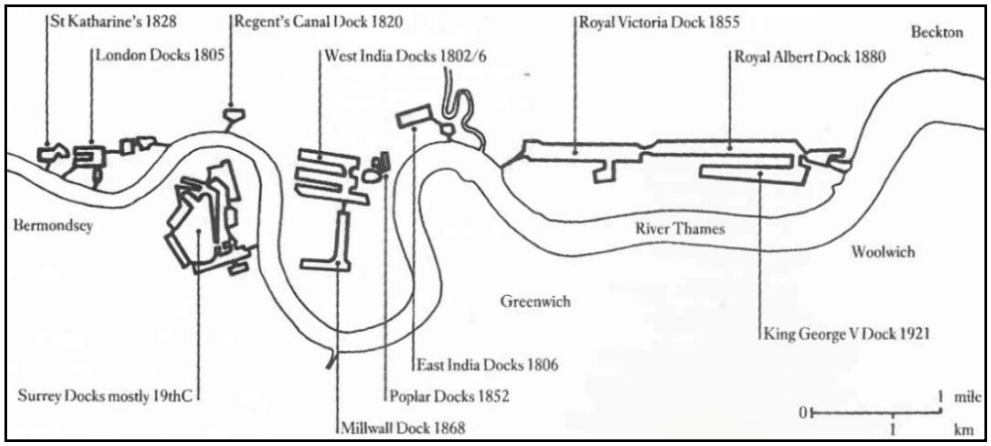

Figure 2-11: The dock construction between 1802-1921 in London.
(Meyer, 1999, p.71)

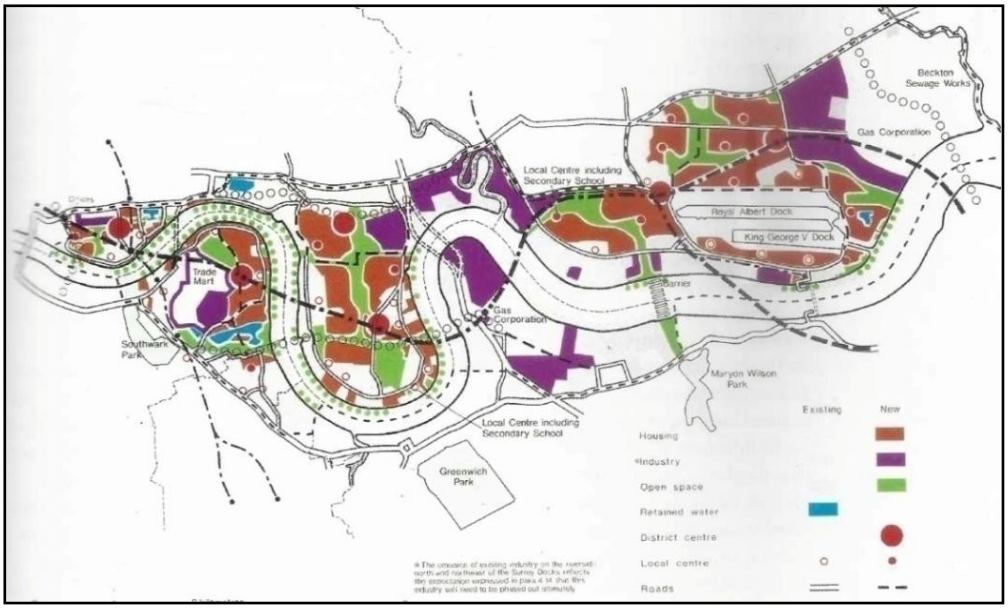

Figure 2-12: Spatial-functional organization of Docklands, the LDSP, 1976.
(Meyer, 1999, p.91)

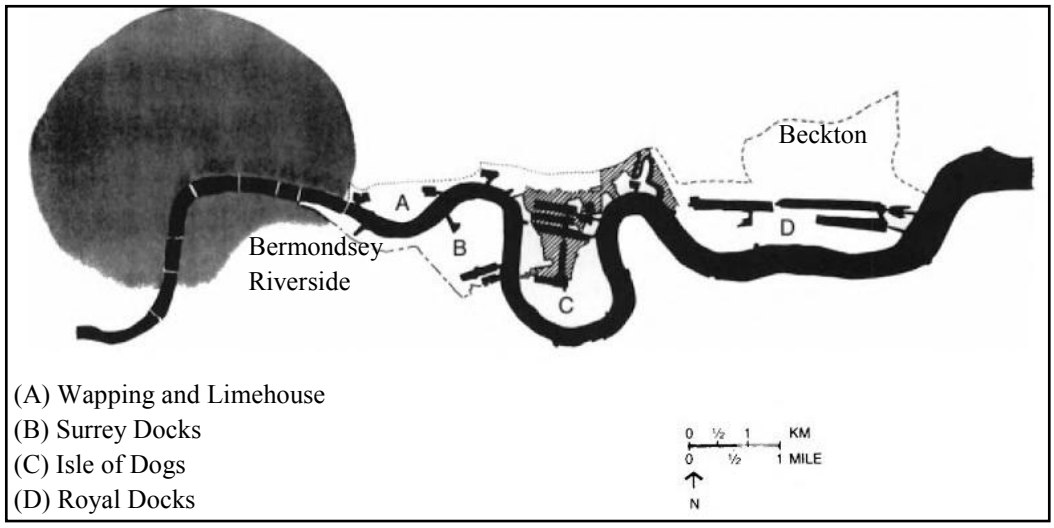

Figure 2-13: The docklands controlled by the LDDC.
(Edwards, 1992, p.8)

Isle of Dogs: The area included West and East India Docks, Millwall Dock, Blackwall Basin, Poplar Dock where warehouses, shipping and isolated residential units were located. The planning decisions for this site covered the mixed-use of housing, industry, commerce, and offices with the development of public transport.[49] There was also "Enterprise Zone" which has involved the most significant project Canary Wharf designed by Cesar Pelli, which is also the most criticized part of the regeneration (Karaaslan, 1996). Isle of Dogs was aimed to be different from the other zones with its monumental urban environment (Basatemür, 2001).

Surrey Docks: The site covered Greenland Dock, South Dock, Canada Water and Surrey Water. Surrey Docks was planned as a residential and business district with the reuse of several abandoned buildings. The facilities of housing, commerce, industry, sports, marina and recreation were placed within the area (Karaaslan, 1996). The new buildings were restricted with four-story in Greenland Dock, different from the general attitude of the LDDC (Gülersoy, 1995).

[49] http://www.lddc-history.org.uk/iod/index.html last accessed in 20.07.2019.

(a) (b)

Figure 2-14: (a)[50] West India Dock before Canary Wharf, 1985 (b)[51] Derelict industrial land in Isle of Dogs

(a) (b)

Figure 2-15: (a)[52] Isle of Dogs looking north, 1997 (b)[53] Canary Wharf on the back

(a) (b)

Figure 2-16: (a) Lavender House in Surrey Docks- before refurbishment (b) After[54]

[50] Edwards, 1992, p.61.

[51] http://www.lddc-history.org.uk/iod/index.html last accessed in 20.07.2019.

[52] http://www.lddc-history.org.uk/iod/index.html last accessed in 20.07.2019.

[53] https://londonist.com/2016/09/what-is-there-to-do-in-canary-wharf last accessed in 20.07.2019.

Wapping and Limehouse: This part of the docklands covered St. Katharine's Dock, Shadwell Basin and Limehouse Basin. Wapping was the first enclosed dock of London opened in 1805 and St. Katharine has come after it in 1882. On the other side, the relation of the Limehouse with the docklands began in 1803 with the connection of the fields to the West India Docks via commercial road. Following, the Regent Canal, today's Limehouse basin, was constructed in 1820.[55] The area has mostly consisted of small shops, workshops and production units. The historic warehouses located at this site have been conserved and utilized for housing and business (Karaaslan, 1996). Ivory house, for example, was reused as residential and commercial facilities (Figure 2-17 a). The Limehouse Basin was partially filled thus a marina and new houses were constructed (Figure 2-17 b). Old cranes of warehouses and cast iron bridges were used as decorative elements on the roads (Basatemür, 2001).

(a) (b)

Figure 2-17: (a)[56] Ivory house, (b)[57] Limehouse basin.

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[54] http://www.lddc-history.org.uk/surrey/index.html last accessed in 20.07.2019.

[55] http://www.lddc-history.org.uk/wapping/index.html last accessed in 20.07.2019.

[56] https://commons.wikimedia.org/wiki/File:Ivory_House,_St.Katharine_Docks,_London_-_geograph.org.uk_-_1777095.jpg last accessed in 20.07.2019.

[57] https://marinas.com/view/marina/x1cgrz_Limehouse_Basin_Marina_Canning_Town_GB_United_Kingdom last accessed in 20.07.2019.

Royal Docks: This zone is the biggest area including Royal Victoria and Royal Albert Docks, King George V Dock, Albert Basin and Thames Barrier. Also in 1987, the third airport of London was put into service within Royal Docks (Karaaslan, 1996). The site has a comprehensive master plan including infrastructure as roads, light railway, drainage and landscaping. The main land-uses were determined as housing, retail, leisure, business and exhibition in the development framework of the LDDC. Before taking action, the strategy of the LDDC has been to buy docks from the Port of London Authority since the area was quite large to deal with without owning. The construction of an urban village, the business park, the campus, and the exhibition center were the main practices of the LDDC. Some of the hydraulic cranes were conserved as industrial monuments within the landscape of the urban village (Basatemür, 2001). Moreover, the Grade II listed buildings located at the site were conserved and reused. Dock Manager's Office, the Central Buffet, The Gallions Hotel, the Cold Store Compressor House could be instances for the conservation.[58]

Bermondsey Riverside: This area spread from London Bridge to Rotherhithe at King's Stairs Gardens, consisting of wharves, warehouses and workers' houses in most; merchants' houses and dock offices as sprinkled.[59] London Bridge City, Butlers Wharf, St. Saviour's Dock and Mill Street have been well-known places within the site. The urban character of Bermondsey Riverside was conserved in general. The warehouse located in St. Saviour's Dock, for instance, was conserved without lost of its authentic features (Köksal, 2005). The warehouse built in 1880 was reused with the housing function together with workshops, offices and cafes. Moreover, the historical buildings along the Shad Thames street were revived and new structures were built incoherent with the old fabric. The historic warehouses were converted into houses and offices with the additions of new architectural elements such as doors and balconies (Figure 2-19). Besides, Shad Thames and Lafone streets were left only for pedestrians with the renewal of urban equipment

[58] http://www.lddc-history.org.uk/royals/index.html last accessed in 20.07.2019.

[59] http://www.lddc-history.org.uk/bermondsey/index.html last accessed in 20.07.2019.

(Altın, 2003). The modern structures, on the other side, were constructed mostly as white in a distinctive but not in a contradictory way (Basatemür, 2001).

(a) (b)

Figure 2-18: (a) West Silvertown Urban Village (b) Gallions Hotel[60]

(a) (b)

Figure 2-19: (a)[61] (b)[62] Restored historic buildings on Shad Thames

Beckton: The area involved the gasworks which was founded in 1870 as Europe's largest one, and was active till 1969 (Figure 2-20 a). The surrounding areas of the gasworks were developed as private housing, and various facilities as shopping and retail park. The symbol of the regeneration was thought of as the Beckton Alps (Figure 2-20 b) which has included leisure activities and public housing. The Alps were located on the "protuberances resulted from the waste by the Beckton gas

[60] http://www.lddc-history.org.uk/royals/index.html last accessed in 20.07.2019.

[61] https://www.homeaway.co.uk/p6246338 last accessed in 20.07.2019.

[62] http://footprintsoflondon.com/2014/09/bleeding-london/ last accessed in 20.07.2019.

works".[63] The gas works, on the other hand, was a derelict area of which buildings have no longer existed.

(a)

(b)

Figure 2-20: (a)[64] The Beckton gas works (b)[65] The Beckton Alps

The Minneapolis Flour Milling District

Minneapolis was known as a "Mill City" since it was flour milling capital of the world in history. Flour mills in downtown Minneapolis within Minnesota state had been built on St. Antony Falls to take advantage of the natural waterfall. The power of the falls had been using for industrial facilities beginning with the saw mills in the late 1840s. Steam powered sawmills were spread along the Mississippi river by 1890; however, they first started to be moved to the north and most of them were closed by 1910.[66]

On the other hand, flour mills became the master while saw mills were leaving the falls. Many sawmills were converted to flour and grist mills or they were replaced by them (Miller, 2018). A small grist and flour mill were built on the east side of the river in 1851 as an initiation. The first commercial flour mill, the Cataract Mill,

[63] http://www.lddc-history.org.uk/beckton/index.html last accessed in 20.07.2019.

[64] https://www.eastlondonhistory.co.uk/history-beckton-gas-works/ last accessed in 20.07.2019.

[65] http://www.lddc-history.org.uk/beckton/index.html last accessed in 20.07.2019.

[66] http://www.mnhs.org/places/safhb/history_sawmilling.php

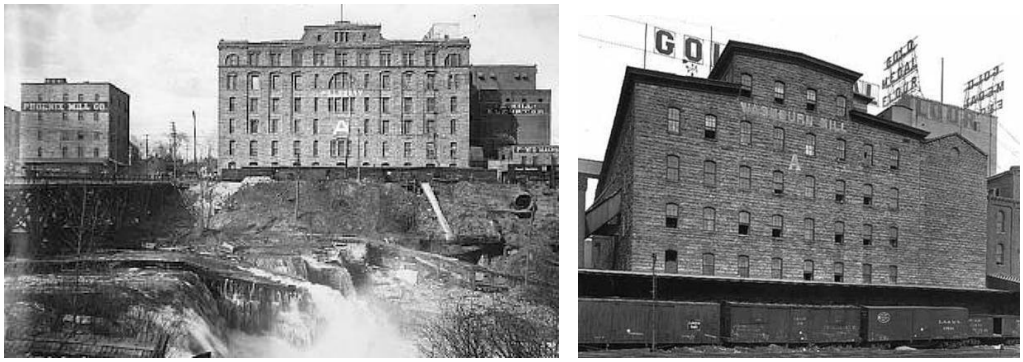
was settled in 1859 in the west side of the river with the construction of a canal (Anfinson, 2003). Washburn, Pillsbury, Peavey and Cargill were the companies which controlled the mills. The mills were mainly referred with these names. Washburn mill, located along the west side, was the chief between the new mills, which were built of limestone with six- story in 1866. During the years, some explosions occurred and they harmed both the people and the buildings; however, the district was rebuilt. Flour mills were mostly located on the west side of the river, which were connected with a system of canals and tunnels. In 1880, there were 22 flour mills on the west side yet they were limited on the east side due to the lack of waterpower canals resulted by the destruction of the fires (Anfinson, 2003). A railway line was proposed with the purpose of connecting the east and the west to support the development of the east side. The railroad was carried with the stone arch bridge which were constructed in 1883, which also became a "National Historic Engineering Landmark" (Anfinson, 2003, p.133).

Minneapolis became "the flour milling capital of the nation" by the 1880s and lasting for the next 50 years.[67]

Flour mills were quite significant within the district; however, saw mill or flour mills were not the only production units at the falls. Other industries as foundries, machine shops, paper mills and textile mills were also settled. A paper mill, for instance, was constructed in 1859 on Nicollet Island as one of the earliest industries within the area. Another paper mill was established in 1866 on the west side. Also, two textile mills were in progress by the mid 1860s (Anfinson, 2003). The riverfront had consisted of residential, industrial and commercial use. Housing was first appeared in 1840s; however, they were mostly pushed out with the railroads and increase in mills, except the Bohemian Flats (Anfinson, 2003).

[67] http://www.mnhs.org/places/safhb/history_flour.php

Figure 2-21: The west bank of the Mississippi River in 1885[68]



(a) (b)

Figure: 2-22: (a) Pillsbury A Mill and Phoenix Mill, 1905s[69] (b) Washburn A Mill, 1910[70]

[68] https://minneapolisparkhistory.com/tag/mill-ruins-park/

[69] http://239days.com/2012/09/19/minneapolis-flour-power-and-the-ideal-virtues-of-man/

[70] https://www.mprnews.org/story/2010/10/21/millcitymuseum

Figure 2-23: Washburn-Crosby and Pillsbury complexes, 1905-1922[71]

(a)

(b)

Figure: 2-24: (a) The Stone Arch Bridge, 1884 (Anfinson, 2003, p.133) (b) The Stone Arch Bridge and the view of the west side mills[72]

The flour industry in Minneapolis riverfront began to slow down by the 1930s with the change in technology. Steam and electricity were preferred to power the plants so most of the mills were relocated away from the falls.[73] The Pillsbury A Mill was the only one working on the east side by 1956. The Corps, on the other hand, had been working on St. Anthony Falls Locks and Dams between the years 1950 and 1960 by filling canals. Thus, the historic fabric of the district mostly disappeared. In 1965, the Washburn A Mill, located on the west side, also stopped its production (Anfinson, 2003).

[71] https://www.mprnews.org/story/2010/10/21/millcitymuseum

[72] http://www.mnhs.org/places/safhb/history_railroads.php

[73] http://www.mnhs.org/places/safhb/history_midCentury.php

The riverfront of Minneapolis was like an industrial wasteland in the early 1970s. The district was listed in 1971 on the National Register of Historic Places. Following in 1972, a plan was developed by a committee including City of Minneapolis agencies as Planning Department, Housing and Redevelopment Authority, Department of Public Works, and Park and Recreation Board. The plan aimed the revitalization of the riverfront by creating a parkland with the historical interpretation (Miller, 2018). Many redevelopment projects were realized along the river. The railroad tracks were removed and the industrial areas were cleaned for adaptation of new uses. Most of the mills, warehouses and commercial buildings were saved and re-functioned. Historic residential units were renovated as those on Nicollet Island while new housing units were also added.[74] The area has been used with various purposes as housing, offices, stores, art galleries, restaurants, theaters, museum, and so on. The reuses of Pillsbury A Mill and Washburn A Mill, and the recreational sites of Mill Ruins Park and the Stone Arch Bridge were the successful and popular projects in downtown Minneapolis (Miller, 2018). Apart from the historical structures, the site also includes new projects of renowned architects.

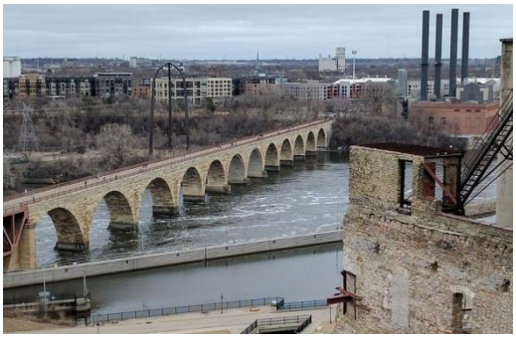
The Stone Arch Bridge: It was the former railroad bridge transforming trains across the Mississippi River and connecting the east and west banks. The bridge was renovated and reopened in 1994. The railway lines were removed and the bridge was transformed for the use of pedestrian traffic as walking and biking path within the Minneapolis Park Board. The traces of the railroad over the bridge were removed; however, the traces of the mills and connected tunnels were appeared with the Mill Ruins Park.

Mill Ruins Park: It is located on the west bank of the Mississippi River, which helps highlighting the history and preserving archeological ruins.[75] The archeological studies within the falls' district revealed the foundations of former mills, railroads and waterpower system. The project first started as to save the mills from

[74] http://www.mnhs.org/places/safhb/history_riverfront.php

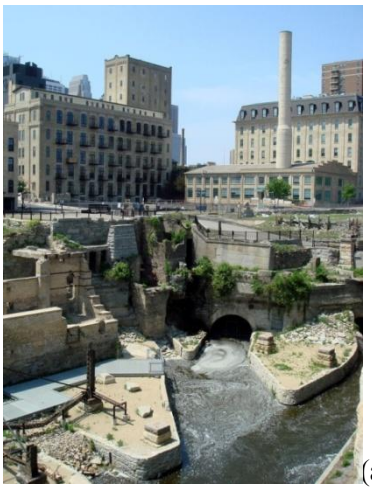
[75] http://www.mnhs.org/places/safhb/history_riverfront.php

destruction in 1980s yet it aimed to expose the ruins for their interpretive value in 1990s. The excavations continued between 1998 and 2001. In the end, the site has consisted of the remains of several mills, stone piers, iron girder piers, waterpower canal.[76] It reflects the decision of the city to retain and display the reminders of the past.[77]


(a)

(b)

Figure 2-25: (a) The Stone Arch Bridge after renovation [78] (b) The bridge in a closer view[79]


(a)

(b)

Figure 2-26: (a) Canal system in Mill Ruins Park[80] (b) Remains and visitors' path in Mill Ruins Park[81]

[76] https://en.wikipedia.org/wiki/Mill_Ruins_Park

[77] https://landscapevoice.com/mill-ruins-park/

[78] https://en.wikipedia.org/wiki/Stone_Arch_Bridge_(Minneapolis)

[79] https://www.flickr.com/photos/iip-photo-archive/37349012456

[80] https://en.wikipedia.org/wiki/Mill_Ruins_Park

[81] https://landscapevoice.com/mill-ruins-park/

Mill City Museum: Washburn A Mill was included in the archeological studies which formed the Mill Ruins Park. The museum was built by Thomas Meyer within the ruins of the Washburn A Mill which had been damaged with the explosion and fire. Mill City Museum is a National Historic Landmark for the city. The iconic "Gold Medal Flour" sign can still be seen. The museum was opened in 2003 by the Minnesota Historical Society, providing a "multi-sensory, interactive journey".[82] The design idea was to leave intact the original features including flour bins, machinery, the engine house, rail corridor, and a wheat house. The museum includes an open air ruin courtyard with modern elements of glass and steel, baking and water labs, flour tower, and observation deck. The preservation work of the structure has been still continuing, which includes repairing, stabilizing and developing physical condition.[83] The museum also offers many tours for visitors including Washburn Mill, railroad history, Minneapolis history pub crawl, riverfront, and historic main street.

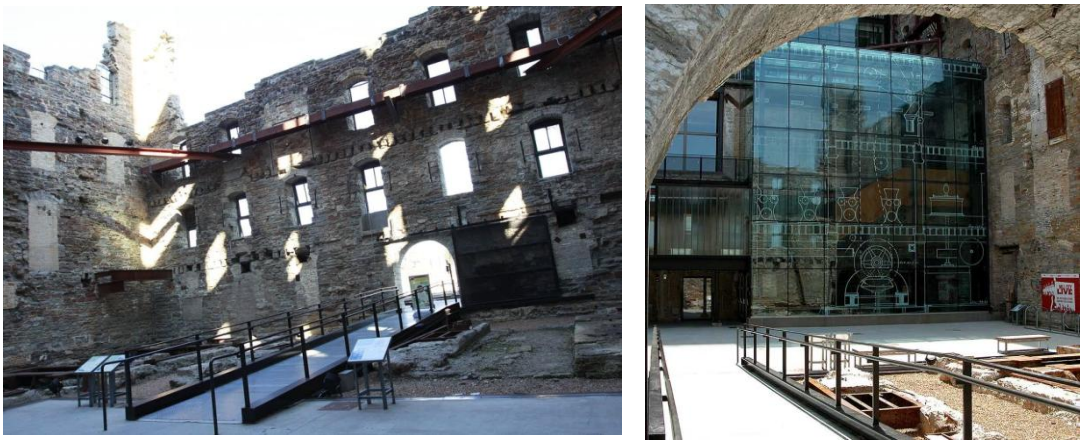


Figure 2-27: Open air ruin courtyard[84]

[82] http://www.mnhs.org/places/safhb/history_riverfront.php

[83] http://www.mnhs.org/millcity

[84] https://www.mprnews.org/story/2010/10/21/millcitymuseum, http://www.mnhs.org/millcity/activities/museum

Figure 2-28: Mill City Museum looking from the Stone Arch Bridge[85]

(a) (b)

Figure 2-29: (a) New and historical structures in ruin courtyard [86] (b) Observation deck and "Gold Medal Flour" sign[87]

[85] https://en.wikipedia.org/wiki/Mill_City_Museum

[86] https://www.mprnews.org/story/2010/10/21/millcitymuseum

[87] http://www.mnhs.org/millcity/activities/museum

A Mill Artist Lofts: The Pillsbury A Mill is another reused structure which were designated as a National Historic Landmark. It was also placed on the National Trust for Historic Preservation's "11 Most Endangered Places" list in 2011. The mill stopped its production in 2003. The structure was transformed into a live/work rental lofts for artist and their families including 251 loft apartments, dance studio, painting studio, performance space, multi-media studios, photography studio and more. [88] The loft was opened in 2015. The project also has a water management system that provides to use roof water for irrigation. Moreover, some heating and cooling were provided by a hydrotermal system with the advantage of the river.[89] They used the existing turbine shaft with a modern mechanical turbine. The renovation consisted of structural repairs to the failing exterior facade, the reproduction of historic windows, and creation of new infrastructure.[90] Conveyor belt elevators, pulleys, and silos were left as to show milling process.

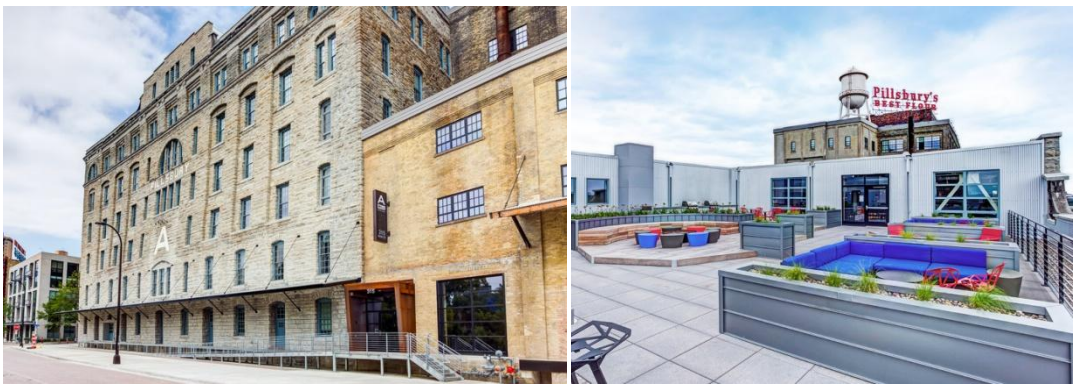
Figure 2-30: Pillsbury A Mill exterior[91]

[88] http://www.w-noordijkinc.com/amill

[89] https://www.a-millartistlofts.com/custompage.aspx?sectionid=724824

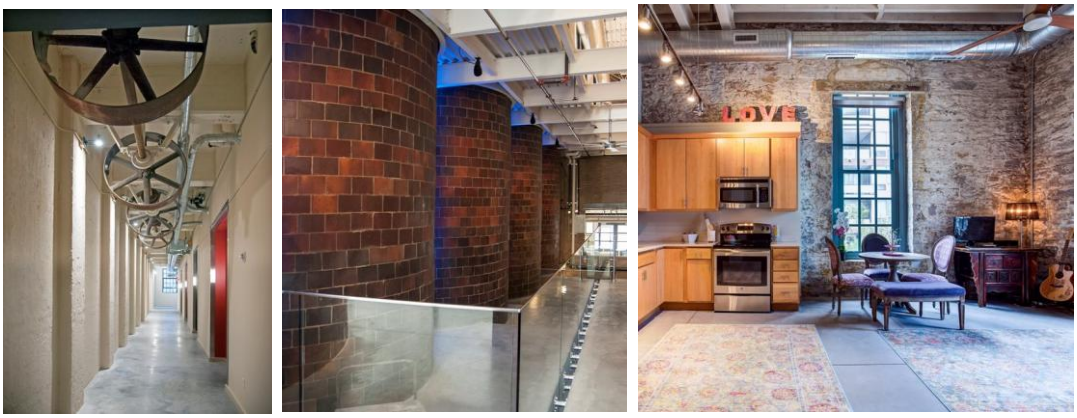
[90] https://www.dominiumapartments.com/development/case-studies/a-mill-artist-lofts.html.html

[91] http://www.w-noordijkinc.com/amill



(a) (b)

(c) (d)



(e) (f) (g)

Figure 2-31: (a) Facade in a close view (b) The roof[92] (c) Lobby Entrance (d) Gallery (e, f) Hallway (g) Kitchen[93]

[92] http://www.w-noordijkinc.com/amill

[93] https://www.a-millartistlofts.com/photogallery.aspx

798 Art District

The art district was chosen as an example of a reused industrial plant from a distinct region, Beijing, China. The area has spread on approximately 640.000 m^2 in Chaoyang District (Sepe, 2018). Factory 798, in original, has been an industrial complex built in the 1950s with the Bauhaus style through the assistance of East German engineers (Figure 2-32, 33). The complex of 64 hectares has worked as "Asia's largest military electronic plant" with workshops, residential units for workers and a hospital (Hee et. al., 2008). However, most of the factories have been stopped working in the 1990s thus the transformation of the complex from industry to art district has started afterward with the real-estate organization. At first, the area has been used both by the tenants of art colonies and electronic workshops that have been still working actively. The interest has been increased within a short time, and Factory 798 has been "a booming art enclave" in 2003 when the First Art Biennale of Beijing was held in the complex (Hee et. al., 2008). On the other hand, the plans of the government have been the exact opposite with the idea of the demolition of the site. So the process has begun for the area with the increasing reaction and convincing efforts of the art communities and intellectuals. Moreover, the appreciation of industrial buildings as cultural heritage has been asserted by the related public institutions.[94] Finally, in 2005, the Beijing Municipal Government has identified the Factory 798 as "a modern architectural heritage", and the site has been officially entitled as "industrial district for cultural and creative industries" in 2006 (Yin et. al., 2015). The art-related enterprises have been dramatically increased after the conservation was guaranteed. In the meanwhile, the galleries, cafes and restaurants than the artists' workshops have been in growth due to the rack-rents in consequence of the popularity, which brings the image of

[94] In China, the Department of Cultural Industries under the control of the Ministry of Culture has been established in 1998 (Yin et. al., 2015). In 2002, the protection of workshops, factories, warehouses built thirty or more years ago and that represented the industrial development of China has been imposed by the related committee in Shanghai (Hee et. al., 2008). The process for the transformation project of the complex, and further information about China's approach for industrial heritage could be learned in detail in the sources as Hee et. al., 2008 and Yin et. al., 2015.

consumption-based uses than the production-based uses as in the origin (Sepe, 2018). The art district has included galleries, design companies, art centers, artists' workshops, restaurants, and bars (Figure 2-34). In the end, 798 Art District has been stated as the "symbol of a new industrial civilization in China and the pioneer of the new Chinese creative industry" (Yin et. al., 2015). Indeed, the initial idea has not emerged as to conserve industrial plants but to get cheap places due to the abandonment, and to work in favorable places with their spatial features for the art colonies. Eventually, the consciousness regarding industrial heritage has grown thus the conservation of the site has come true in a way.

(a) (b)

Figure 2-32: (a) Factory 798 (b) Inside (Yin et. al., 2015, p.152)

(a) (b)

Figure 2-33: (a)[95] Industrial building (b)[96] Industrial landscape

[95] http://www.798district.com/en/798_discover/798_gallery/ last accessed in 22.07.2019.

Figure 2-34: 798 Art District, land use (Yin et. al., 2015, p.151)

2.3. Legal Process for Conservation of Industrial Heritage in Turkey

The awareness of the conservation of industrial heritage in Turkey was not as early as it happened in European countries. The concepts of industrial heritage or archeology have been debated quite recently in our country. The conservation of industrial heritage became the topic starting from the early 1990s (Saner, 2012). Nevertheless, Turkey does not have a legal policy for the conservation of industrial heritage in a specific manner. However, it can be mentioned that the conservation of cultural heritage, in general terms, has been subject to legislation. Before discussing the current legislation, a brief history of the conservation approaches in Turkey with regard to cultural heritage will be summarized.

Conservation approaches in our country had the origins in the classical period of the Ottoman Empire in the mid-nineteenth century. The restorations or repairs of the historical buildings were mostly provided by the foundation system and arranged

[96] http://www.sasaki.com/project/36/798-arts-district-vision-plan/ last accessed in 22.07.2019.

with legal regulations. The first attempt regarding the conservation was the establishment of Old Armory and Artifacts Collection Museum in 1846 in Hagia Irene Church. Following, Regulations for Historical Monuments was made in 1869 as the first legal regulation directly related to the conservation concept, which focused on archeological sites (Madran, 2002). The scope of the conservation measures and related definitions were extended with continuing regulations of ancient monuments within the years. The last organization with regard to conservation authorized by the Ottoman Empire was the The Council of Historical Properties established in 1917, which worked on the arrangement of the registration of historical buildings and the supervision of interventions to the registered buildings (Madran, 1996; Şahin Güçhan & Kurul,2009).

The previous organizations and regulations were rearranged in the Republican Period. The responsibility of the maintenance and conservation of the historic structures was given to different institutions with various legal organizations.[97] The Council of Historical Properties was accepted as the first organization in Turkey with the supervision of the conservation as a decision making body; and also as the initiation of The High Council for the Historical Real Estate and Monuments in

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[97] National palaces and related structures have been given under the control of the Grand National Assembly of Turkey; schools and their lands to Special Provincial Administration; the medreses and their lands to the Ministry of Education (Maarif Vekaleti); fortresses, fountains ,"şadırvan" and cemeteries to municipalities; bridges to Ministry of Reconstruction; mosques and mescits to Department of Religious Affairs after many changes. Islamic monasteries and tombs, on the other hand, have been closed but the specific structures have been attributed to be conserved by the Ministry of Education (Madran, 1996).

This created some problems for the conservation due to the reasons of inadequate knowledge on the subject and/or the need for an allowance from different bodies for a complex. Following these negative developments, more comprehensive approaches were done for the conservation of historical buildings initiated with the establishment of the Council for Preservation of Monuments in 1933 led by Mustafa Kemal Atatütk, the first president. Moreover, the General Directorate of Pious Foundations was established in 1935, having the responsibility for structures of foundations (Şahin Güçhan & Kurul, 2009).

1951 (Madran, 1996). During these years, various institutions worked together about the conservation of historic structures, whose implementations could be debatable or not; yet this is not in the scope of this study.

In the second part of the 20th century, The High Council initiated a new period for the conservation measures in Turkey. As the decision-maker, the council developed the main principles on conservation, identified interventions, categorized the structures, increased the conservation activities, and raised the conservation concept by initiating discussions (Şahin Güçhan & Kurul, 2009). Historic Artefacts Act (no: 1710) became valid in 1973, introducing the terms "site" as historic, archeological and natural sites; "monument" and "complex" (Çal, 2005). Besides, the conservation concept was enlarged to areas than the individual buildings.[98] The high council started the descriptions on the sites and the concept of "conservation master plan" emerged for the first time according to the classifications (Şahin Güçhan & Kurul, 2009).

The raising of the awareness on the conservation and the increase of the sites and/or buildings to be conserved caused the development of a new organization system. Conservation Act on Cultural and Natural Assets (no: 2863) became valid in 1983 and Regional Councils for Conservation of Cultural and Natural Heritage with the High Council for Conservation of Cultural and Natural Heritage stood instead of the high council (Çal, 2005; Şahin Güçhan & Kurul, 2009). This act, still valid today, was amended several times in different years. Şahin Güçhan and Kurul (2009) accepted the year 2004 as a turning point that Turkey adopted the EU perspective on conservation.[99]

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[98] http://www.korumakurullari.gov.tr/TR-89114/tarihce.html last accessed in 27.06.2019.

[99] The act was amended in 1987 with the act no: 3386 and was rearranged in 2004 with the act no: 5226. The changes made in 2004 were divided into three groups; " ▪ the restructuring of public administration, ▪ architectural conservation (indirectly), ▪ the structural and legislative framework of architectural conservation." (Şahin Güçhan &Kurul, 2009). Further information could be gathered from the article.

Besides, articles of law were added with statutory decrees in different years.[100] The current act (no:2863 with the changes) will be summarized briefly in order to understand the content of the legal condition for the cultural heritage in Turkey. First of all, the definitions including "cultural and natural assets, site, conservation, conservation area, evaluation, archeological site, conservation development plan, land use project, management area, management plan, movable natural assets, nexus point, street rehabilitation project" were given (Article 3). The movable and immovable cultural and natural assets were approached in different sections with the content of structures. The determination and the inscription of cultural and natural assets were done by regional councils within the resolutions of the high council and under the control of the Ministry of Culture and Tourism.[101] The decision-making body has been the conservation councils. The conservation of cultural and natural assets, taking precautions, making inspections or getting it done by the related institutions have been authorized by the Ministry of Culture and Tourism regardless of the ownership status (Article 10).[102] The maintenance and

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[100] Statutory decrees were added in 2011 and 2018. These were the adjustment at large but there were other changes with different acts in 2007, 2008 and 2009. Moreover, some alterations and extensions were done with the act no:6498 in 2013, act no:6745 in 2016 and act no:7153 in 2018. The conservation act with all of the changes and/or cancellations can be seen in http://www.mevzuat.gov.tr/Metin.Aspx?MevzuatKod=1.5.2863&MevzuatIliski=0&sourceXmlSearch=

[101] Ministry of Culture has been founded in 1989 and changed as the Ministry of Culture and Tourism in 2003 (Şahin Güçhan & Kurul, 2009). The studies on the conservation of cultural and natural heritage have been done by taking the opinions of the related institutions and organizations under the coordinatorship of the ministry (Act no:2863, article 7).

[102] The conservation of cultural and natural assets under the control of the Presidency and the Grand National Assembly of Turkey has been done by themselves. The heritage under the control of the Ministry of National Defense has been conserved and evaluated by the concerned ministry. Similarly, the General Directorate of Foundations has conducted conservation studies on the heritage that has been under their control. Other public institutions and private entities have also provided the conservation of heritage structures that of their property under the act of law. (Act no:2863, article 10)

repair of the immovable cultural and natural assets were provided by the property owners according to the act of law.[103] The orders about usage, contribution margin, expropriation, conservation development plans, construction principles and relocation of the immovable cultural and natural assets were determined with the law. Moreover, management, surveillance and museology of the movable cultural and natural assets were regulated. Research and excavation terms were ruled likewise.

The appointments of the High Council for Conservation of Cultural and Natural Heritage were determined with the law. One of which, related to this study, is;

- identifying principles with regard to conservation and restoration of cultural and natural heritage (Act no:2863, article 51).

Also, the duties of the Regional Councils for Conservation of Cultural and Natural Heritage were indicated. Some of which, linked with this study, are;

- making the classifications of cultural heritage (Act no:2863, article 57).

In the formation of regional councils, the experts on archeology, art history, law, architecture and city planning are present. However, a representative from related municipality, governorate, the Ministry of Public Works and Settlement, General Directorate of Foundations, the Ministry of Environment and Forestry and museum director could attend the meetings if they are related to the topic. In addition, trade associations and senior consultants could be included as non-voter. (Act no:2863, article 58)

As seen, the main institution responsible for the conservation of cultural and natural heritage has been the Ministry of Culture and Tourism as organizing the studies and

[103] If needed, the General Directorate of Foundations, Provincial Private Administrations, municipalities and other public institutions could contribute the maintenance and repair of these assets with technical support and allowance under the discretion of the Ministry of Culture and Tourism (Act no:2863, article 11).

other bodies in this field. Hence, the ministry has been working with the high council and regional councils; the General Directorate of Foundations; municipalities and governorates; other ministries as Public Works and Settlement, Environment and Forestry, National Defense; Department of National Palaces as part of the Grand National Assembly of Turkey. However, the main bodies under the Ministry of Culture and Tourism have been the high council and regional councils whose duties were appointed in the law as mentioned. Indeed, there has been a department under the Ministry of Culture and Tourism, which is the General Directorate of Cultural Heritage and Museums as the responsible body on conservation, evaluation and survival of cultural and natural heritage, working with the regional councils.[104]

Municipalities, Provincial Private Administrations, General Directorate of Foundations and Department of National Palaces conduct the conservation and restoration studies within their assigned areas as mainly making a tender; employing the firms; making them prepare the measured drawings, restitutions and restorations; guiding the implementations. Municipalities is also responsible for preparing conservation development plans in accordance with the regional councils (Şahin Güçhan & Kurul, 2009).

Up to now, there has not been specific legislation concerning the conservation of industrial heritage. Surely, industrial heritage is a part of cultural heritage; however, there are not any definitions in the conservation act, either. The High Council could define the main principles for industrial heritage while the Regional Councils could make classifications of industrial heritage within the cultural heritage as one of their duties mentioned above. Only, the list of registered immovable cultural assets covered the industrial structures which were counted with commercial buildings (Table 2-1).

[104] http://www.kulturvarliklari.gov.tr/TR-43036/misyonumuz-ve-vizyonumuz.html last accessed in 02.07.2019

Table 2-1: Registered Immovable Cultural Assets,
the Ministry of Culture and Tourism, 2018.[105]

REGISTERED IMMOVABLE CULTURAL ASSETS IN TURKEY	NUMBER
Civil Architecture	69.104
Religious Buildings	10.147
Cultural Buildings	12.530
Administrative Buildings	2.985
Military Buildings	1.252
Industrial and Commercial Buildings	**4.171**
Graveyards	5.169
Martyrdoms	307
Monuments	375
Archeological Sites	2.702
Streets to be preserved	71
TOTAL	**108.813**

Apart from the legal frame, Turkey accepts the international charters in the conservation field and works incorporation with other international organizations. ICOMOS, for instance, is one of the significant organizations as mentioned in previous parts. ICOMOS Turkey was established in 1974 as a semi-governmental institution under the Ministry of Culture working in national and international platforms.[106] Especially after 1992, ICOMOS Turkey had an autonomous organization with its altered regulations with regard to members and activities. It prepared a national charter in 2013 named as "ICOMOS Turkey Architectural Heritage Conservation Charter". Within the aim of the charter, it is mentioned that some provisions threatening the conservation of cultural heritage were included in

[105] https://www.kulturvarliklari.gov.tr/TR-44798/turkiye-geneli-korunmasi-gerekli-tasinmaz-kultur-varlig-.html

[106] http://www.icomos.org.tr/?Sayfa=Icomos&dil=tr

the conservation act valid in Turkey; hence, the preparation of this charter is compulsory.[107]

The charter has extensive definitions including 'industrial heritage' as;

> " **Industrial heritage** are the structures that have been involved within the industrial production processes and/or built with the technology of industrial revolution. Out of use structures, production equipment, construction components, settlements within nature and city landscapes have constituted the industrial heritage."

It also points out the term in the conservation values part as dealing with the historical value. The chart discussed the conservation processes of architectural heritage as identifying and evaluation; intervention principles; the scale, approaches and manners of intervention. Moreover, legal and administrative arrangements; experts; agents and stakeholders were mentioned regarding policies. Lastly, the importance of education is argued. This charter is particularly cited since it was prepared directly by Turkey. International charters regarding the conservation of industrial heritage were already agreed by member states including Turkey.

ICOMOS Turkey is not the only organization working on this field. Other agents as non-governmental organizations and professional chambers are in relation with the conservation of industrial heritage beyond the legal or administrative context. Yet the first campaigns on conservation of industrial heritage, focusing on gasworks, were conducted by non-governmental organizations under the leadership of professional chambers (Saner, 2012). Even the related concepts as 'industrial

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[107] It is mentioned that some of the alterations in the act no:2863 with the change act no:5226 have been contradicted with the universal necessities of conservation. Besides, the Act of Protection by Renewal/ and the Usage by Sustentation of Historical and Cultural Immovable Assets (Act no:5366); Statutory Decree about the Organization and Duties of the Ministry of Environment and Urban Planning (No:648); the Act of Urban Transformation in Danger of Disasters (Act no:6306) and related regulations.

archeology' were spread during or after these developments.[108] Moreover, TICCIH Turkey and ÇEKÜL[109] are other organizations related to the conservation of industrial heritage. However, there have not been any studies of TICCIH Turkey in coordination with TICCIH apart from having a national representative (Saner, 2012).

In summary, the cultural and natural heritage in Turkey is under the guard of the conservation act. Various institutions work in collaboration in this field. The studies on the conservation of historical assets have been continued starting from the Ottoman period. The evolution of the structure of architectural conservation is divided into six parts by Şahin Güçhan and Kurul (2009);

- origins: in the middle of 19th century to the beginnings of Republic (1920),
- the building of a secular nation: 1920-1951,
- raising the profile: 1951-1973,
- from artifacts to sites: 1973-1983,
- towards localization: 1983-2003,
- an era of change: 2003 to the present.

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[108] The conservation process of Ankara Maltepe Gasworks has been a pioneer example in this field. In 1989, EGO (General Directorate of Public Transport Services Of Ankara) has desired to demolish Maltepe Gasworks, which has been under his ownership, after the halt of production. However, professional chambers and non-governmental organizations have achieved the conservation of the factory and its site with the decision of the Regional Council of Cultural and Natural Assets in 1991. After the objections of EGO, the expert's report has declared that the site and facilities have been within the context of industrial archeology and should be conserved. This was the first in Turkey that the term "industrial archeology" has been put on the official record in 1993 (Saner, 2012).

[109] ÇEKÜL (The Foundation for the Protection and Promotion of the Environment and Cultural Heritage) has been a non-governmental organization which has established in 1990 by a group of intellectuals, mostly academics. It "strives to foster and build a nation-wide awareness and network for the preservation of the urban and rural, built and natural environment". (https://www.cekulvakfi.org.tr/we-exist-through-nature-and-culture)

These years in the division can be admitted as turning points for the conservation of heritage in Turkey. At this point, it should be mentioned once again that the legal process on conservation was reviewed in brief just to understand the background of the current legal condition of industrial heritage conservation in Turkey. Otherwise, there are many issues that can be debated on the history of conservation in Turkey, which is not the subject of this thesis.

Concerning the conservation of industrial heritage, the concept of industrial archeology and conservation were on the agenda from the 1990s. The awareness of industrial heritage began with the reactions to the demolitions. Following, the use of the concepts and studies on the field increased gradually. Nevertheless, there is not any specific act of law with regard to industrial heritage and/or related concepts. It is only seen as "industrial buildings" in the group of structures of the ministry. On the other side, the studies of non-governmental organizations and the accepted international charters are guides for this conservation area. ICOMOS Turkey is the most effective one in the conservation field and gets indirectly involved in the industrial heritage conservation field. However, TICCIH Turkey is not included in any studies although it is the main international organization working on the conservation of industrial heritage. ÇEKÜL, on the other hand, has been organizing educational activities thus professional chambers have been publishing documents, running contests and so on in order to increase the awareness on the conservation of industrial heritage. The concept has been also discussed in the academic frame.

In conclusion, the cultural and natural heritage is conserved with the Conservation Act on Cultural and Natural Assets (no: 2863) in Turkey. There is a legal organization scheme including many institutions. However, the conservation of industrial heritage is not institutionalized apart from the non-governmental organizations. The concept is not taken any place in the legal framework in a specific manner.

2.4. Evaluation

In the 18th century, the industrial revolution affected all over the world in social, economic and cultural sense. Architecture, on the other side, was another field impressed by the changes of this period with the development of technology bringing new materials and construction techniques. These industry-related buildings served for manufacturing and relevant functions over the years. Nevertheless, most of the industrial plants became useless in time due to the changing technology and/or various reasons. At this point, the significance of these structures became the topic of the countries that initiated in Britain, which leads to the conservation of them.

The arguments about the conservation of the industrial buildings created new concepts as industrial archeology and industrial heritage around the 1950s. Industrial archeology, in a simple definition, is the process of detection and recording of industrial structures. Industrial heritage covers the industrial remains or buildings, and related structures to be worth to preserve. Industrial heritage has been greatly discussed in the national and international platforms with a growing interest. The institutionalization broadened in quite favorable progress, and new organizations have emerged like CBA, TICCIH, SIA, ERIH, and so on. Thus, the countries admitted the significance of the industrial heritage and have developed strategies to conserve them in addition to the international charters. The scope of the heritage, on the other side, was enlarged constantly.

The demand for the preservation of industrial heritage came up with the various conservation approaches. However, the understanding of the industrial heritage with all of its characteristics by surveying and documentation has been the first to do. Then the maintenance and conservation have followed the recording with the legal protection to ensure the survival of the structures and/or sites. Lastly, to raise awareness and provide training for related people have been expected. This has been the general frame of the principles for the conservation of industrial heritage. Still, it is important to see how this has taken shape in reality. At this point, the case

studies from different countries were examined according to Höhmann's arrangement for the conservation of industrial heritage;

- with no intervention or minimum intervention without giving a new function,
- with minimal changes and giving the function close to the original use,
- with the museum function,
- with adaptive re-use.

The Völklingen Ironworks in Germany is an example of the conservation with no intervention. The complex was preserved as it was with regular maintenance. An available function could not be found for the complex at first but it was used as a museum in the end. The Jackfield Tile Museum is an instance from the UK, which was partially used as an active industrial structure. The Jackfield also covers the museum function with manufacturing by holding the original machinery and equipment to a great extent. Following, Santralistanbul from Turkey was examined as a case of the museum function., which was pioneering example for the country. Santralistanbul is the first industrial archeology museum of Turkey. Santralistanbul is a complex site with its mixed-uses of the museum, cultural center, workshops, residential, administrative and educational units as part of a university campus. The museum section was well preserved with its equipment. The restoration principle was the minimum intervention in the Santralistanbul Museum of Energy. All of the examples mentioned up to now own the exceptional value of preserving the structures with the machinery in situ since these buildings or sites were constructed with the purpose of manufacturing, and to conserve them with all of their characteristics is a rare approach. Nevertheless, this kind of approach could not always be implemented. It is not accessible all the time to leave all the industrial heritage as it stands or to use them as a museum with the entire equipment. Thus re-functioning of the structures is inevitable in most of the cases.

When it comes to adaptive re-used examples, three different cases were handled from particular regions with different scales. Firstly, the London Docklands was the case of an urban renewal project, which is hard to explore at all points; however, it

was chosen as a pioneering example concerning the transformation of derelict industrial sites and the project was analyzed in brief. The urban renewal project of the London docklands was operated mainly in four different zones by a central corporation. These regions were performed separately according to their features and gained different characteristics in the end. Surely, the abandoned industrial and residential sites were converted into usable spaces yet the requests of local people were not met completely. Also, the area was not treated with an integrated plan, which should be evaluated by thinking about the fact that it covers an enormous land. Some parts of the project were stated as successful regarding the adaptive re-use examples while many historic buildings were demolished. The new structures, on the other hand, showed diverse features. The intent in some areas was to build the new structures incoherent with the historic buildings; however, some of them presented overwhelming features as in the Canary Wharf. After all with the favorable outcomes, the docklands was not dealt with the unified approach of urban transformation. The case is significant showing that large and complex site could be developed in a planned way as a guide for other areas; however, it has been debated that the transformation matter took precedence over the conservation.

Secondly, flour milling district in Minneapolis, Minnesota was examined as a significant case from America. Minneapolis assumed the title of "Mill City" in history with the flour mills thus the conservation was critical matter. The site, accordingly the mills, are also distinctive with the natural fall. The project was based on the revitalization of the riverfront as the Mississippi National River and Recreation Area yet the conservation of industrial heritage was part of the project. The downtown Minneapolis was handled as part of the extensive project. Most of the mills, warehouses, and residential units were preserved beginning from the 1970s. In the end, conserved and reused heritage was in coherence with the built landscape and new structures. Massive flour mills was successfully re-functioned as being landmarks for the city. Moreover, the traces of the destroyed mills were unearthed forming a mill ruin park. The case is powerful with regard to its approach that pays attention to the conservation and presentation matter.

Lastly, 798 Art District was another re-used example of industrial heritage from China, whose process was quite different. While the initial intent was to use the industrial plant with the advantage of cheap rents rather than the conservation of the site, the industrial complex was preserved in the end except the demolition of some parts. The action also gained attention with its busy process and created awareness of the significance of industrial heritage on decision-makers. At last, the district formed an attractive place for the city with mixed-use of post-industrial site. This case shows the significance of the relation between the users and the decision-making bodies when the issue is conservation.

After determining the general approaches of different countries through different conservation examples regarding industrial heritage, the legal process in Turkey was examined to understand the conservation history in basic. The awareness of the conservation of historic structures in Turkey was based on the Ottoman Empire period. Surely, the implementations could be criticized yet there has been the effort of preserving the heritage with the act of law. However, Turkey does not hold any specific national legislation concerning industrial heritage. Industrial heritage, as part of the cultural heritage, is under control of the national legislation regarding the natural and cultural heritage without be taken a particular place in the legal framework apart from non-governmental organizations.

CHAPTER 3

URBAN HISTORY OF İZMİR-ALSANCAK LİMAN ARKASI DISTRICT

İzmir is one of the big cities in Turkey situated in the Aegean Region and serves as a significant port city and world fair centre for local and international organizations. The issue of being an important port city has been one of the basic characteristics of İzmir throughout its history. Alsancak industrial district Liman Arkası, on the other hand, played a considerable role of shaping the industry of the city. The site includes the earliest industrial plants built in the second half of the 19th century and in the first half of the 20th century in Turkey, after those in İstanbul.

This chapter aims to learn about the characteristics of Alsancak industrial district in detail and determine the development of the area in every respect. The physical development, planning and conservation histories of the area will be held in this chapter. Following, legal and administrative status will be mentioned. Previously, it could be worthwhile to review the history of the city focusing on the industry together with the alteration of coastline and ports.

It was found in excavations in 2003 that İzmir had been first settled at Yeşilova Mound in Bornova around 6.500 B.C. as one of the oldest settlement in Western Anatolia, layered from Neolithic to Roman period. Yassıtepe Mound, located on 400 meters north of Yeşilova Mound, was settled after on at the end of the Neolithic Age.[110] There were other settlements found within the city dated to the Neolithic Age. The ones that located at the center affected the historical development of the city (Derin, 2010). The city, called as Smyrna in those years, had been located at the coast near Bayraklı in 3.000 B.C. and following, at the mountainside of Kadifekale, i.e. the citadel of Pagos, in 344 B.C, which had been known as the initiation of the

[110] For more information, please visit http://yesilova.ege.edu.tr/

city until the excavations (Figure 3-1). In the figure 3-1, Meles river could also be seen, which has been quite renowned river since the ancient times. Almost all historians interested in Smyrna mentioned about Meles whether they were ancient or modern. Smyrna was identified with Meles, "the blessed river" that one could meet Meles in narratives and maps while discovering the city (Malay, 2010).

Appeared in prehistoric age and controlled by many different civilizations, major developments of the city were mainly discussed starting from the 16th century. During the 15th century and the big part of the 16th century, the city was actually looked like a town providing goods for capital. International trade did not affect Western Anatolia since the strategy of the Ottomans was based on limited commerce especially within the country borders. At the end of the 16th century, population dramatically increased. Newcomers changed the general attitudes in the city by not be engaged in agriculture thus İzmir gradually started to become a commercial center. Growing economic infrastructure basically showed the future adaptation of the city to the industrial development (Goffman, 1990).

İzmir developed towards the sea afterwards and it became a living port city even it was not originated as a city interrelated with water directly. In the 16th century, it had two ports; one of which was inner port filled in time mainly by natural causes and one of which was outer port (Kütükoğlu, 2000). Naturally protected port, inner port, can be seen in figure 3-2. Inner port was a high motivation to be preferred by merchants. Rapid changes on configuration of the world trade, obsolescence of surrounding ports especially Sakız, location of the city and high quality of goods were some of the reasons which make sense that İzmir became one of the prominent ports at the 17th century (Goffman, 1990). Besides, the Ottoman Empire removed the ban on export of cotton product around the 1620s. Later on, the commerce of cotton, cotton yarn and angora wool played a fundamental role on the development of İzmir (Çıkış, 1999). While it was an important port of the eastern Mediterranean and an international port of the Ottoman Empire in the 17th century, Smyrna became a real port city of the Ottoman Empire in the 18th century with the expanding trade relations with Europe (Smyrnelis, 2008). Goffman (1999) stated that the Ottoman Empire did not contribute much to the development of İzmir in the 17th century.

Local administrators, foreign visitors, also Christian, Jewish and Muslim people were much more effective on this development. Besides, countries as Holland, England and France, which went into trade recently at the end of the 16th century, were looking for different products. Since Armenian and Jewish merchants hold Aleppo and Alexandria ports, Smyrna was an alternative route instead of the silk and spice roads (Goffman, 1990).

Examining other activities in the city in those centuries, written sources are good to refer. Physical situation of the city in the early centuries could be collected from engravings and narrative of travelers since the city maps were generally produced in the 19th century (Beyru, 2011). At this point, it was determined by Evliya Çelebi that İzmir had 70 soap ateliers, 20 dyeing plants, 40 coffeehouses, 200 gin mills, a candle atelier, a saddlery and a customs house in the 17th century. Other travelers in the 17th century also described the city with regard to trading while it had never been mentioned in the 16th century. Beginning from the 1830s and especially in the second half of the 19th century, expressions of travelers started to change as "a city which becomes westernized" (Smyrnelis, 2008). Along with the commercial facilities, agricultural activities were quite important for the city. At the beginning of the 19th century, the products of grape and fig were known in abroad, which showed the relation between the port, agriculture and commerce (Beyru, 2011).

It is definitely apparent that industrial revolution affected all over the world as one of which was the Ottoman Empire. İzmir was one of the cities which was transformed distinctly because of the fact that it had relations on trade between the West for centuries and the city had a cosmopolitan social structure (Bilsel, 2000). Trade relations developed so quickly that agricultural production became insufficient to satisfy the demands. Than reshaped production improved very fast and traditional methods were forced by the industrial production under the influence of commerce. At this point, industrial plants which was formed in those years could be mentioned. Basmane Cotton Weaving Mill dated 1795 was the earliest example of industrial enterprise invested by French (Çıkış, 1999). It was in operation until the mid 19th century but expropriated due to the construction of İzmir- Kasaba railway. The most important example of the local minorities' investments was the

paper mill which started production in 1847, known as Şark Paper Mill that was placed at today's water station in Halkapınar. It was admitted as one of the most advanced facilities within the industrial plants of the Ottomans (Çıkış, 1999). Beyru (2011) mentioned that industry was not that much effective within the economy of İzmir in the 19th century as many other cities of the Ottoman Empire compared with other western cities.

The physical transformation of the city caused changes in many aspects. Industrial plants dramatically increased in the city in the second half of the 19th and the 20th centuries. The Ottoman Empire privileged foreign companies as American, British, French and German on railways, tramline, gas, tobacco and so on. Following, the investors were instinctively added (Goffman, 1999). It is indicated that there were three new facilities naturally affected the economy of the city in the 19th century, which were İzmir-Aydın railway, İzmir- Kasaba railway and the harbor with annexes (Gürsoy, 1993). The construction of İzmir- Aydın railway and the station were initiated by four British entrepreneurs with "Smyrna & Aidin Railway" company in 1856. There were also maintenance shops, warehouses and lodging buildings. İzmir- Kasaba railway was also built by a British company named "Smyrna-Cassaba Railway Company" in 1863. The port, on the other hand, was built starting from 1868 by a French company "Dussaud Freres" with the agreement of privileged British tradesmen. As to mention again, the inner port of the 16th century had been filled in time. Also, the coastline of the city changed up to the 19th century starting from the 16th century. The coastline was expanded with land fill. The shore line and the historical port evolved in time; however, the characteristics of being the port city has been genuine for İzmir. The evolution of the coastline and the old port could be seen in figure 3-2b. By 1880, they built the port, the dock, seawall and a tramline (Bilsel, 2000).

The city started to expand through the lands on the north from the 1880s. The expansion of the city through the north and the coastline in the 1940s can be seen in figure 3-3. The railway lines connecting the city to the north part were the most significant factors for this development (Canpolat, 1953). New industrial buildings were constructed starting from Alsancak train station through Bayraklı. In this

sense, the area was mainly filled with flour plants, oil factories and Şark Industries. On the other hand, the axis starting with Basmane train station was built of leather ateliers, oil factories and ended with water station in Halkapınar. These main lines were enlarged through the same direction in the upcoming years as the industrial axis for the city. (Çıkış, 1999). The constructions of railways and the industrial plants in Alsancak part will be mentioned in detail in following sections.

The most developed industrial facility was the textile industry in those years. Eighteen print works were existed and almost all of the ateliers were belong to Armenians. Besides, carpet factories and filatures could be counted as substantial plants. One of the significant industrial branches was flour production in the 19th century. It is indicated that there were twenty three flour mills standing in the city, 11 of which were vaporous and 12 of the rest were operated with water. The most essential one within these was Cousinery- Pitacco located in Punta. Another plant established in this period was ironware factory dated in 1854. In addition, Gasworks, built in 1862 in Punta, was the most important and the largest one within the industrial plants. Similarly, the tobacco factory launched in 1886 was another notable establishment built by the company "Regie des Tabacs". Towards the end of the 19th century, different branches could be seen as ice plant, beer factory, iron foundries, machine workshops, small ateliers producing wine and other drinks. More industrial enterprises were regarded at the last of the 19th century and the beginning of the 20th century, which were furniture works as 15 chair plants and 10 chest ateliers, 7 barrel ateliers, 4 vehicle workshops, 7 sesame oil extractors, 7 candle workshops, 16 soap plants, 5 sawmills and 14 tanneries (Beyru, 2011).

Until the 1920s, commercial and industrial facilities were mostly hold by foreign tradesmen; however, they left the city due to the Turkish War of Independence. Therefore, these activities were interrupted for a while. Gürsoy (1993) indicated that the city had ten factories in 1923 but there were 129 factories in 1933.

The industrial plants constructed in the beginning of the Republican period were mostly on the branch of weaving as; Şark Industries (1924), İzmir Cotton Textile

Industry (1932), Kula Textile Industry (1933) and İzmir Wool Textile Industry (1935). Also, there were many plants regarding food production.

İzmir continued to be the most important mercantile port and industrial city of the Republic. New investments were commenced on cement plants, metallurgical industry and automotive. Previously mentioned industrial axis continued to be developed as Darağacı- Bayraklı to Aliağa and Basmane- Halkapınar to Kemalpaşa. (Çıkış, 1999) In the 1950s, industrial facilities were generally consisted of oil factories, soap ateliers, tobacco, fig and grape industries, ginneries, wooden box workshops (Canpolat, 1953). İzmir became the second largest industrial center after İstanbul with the construction of infrastructure between the years 1950 and 1960.

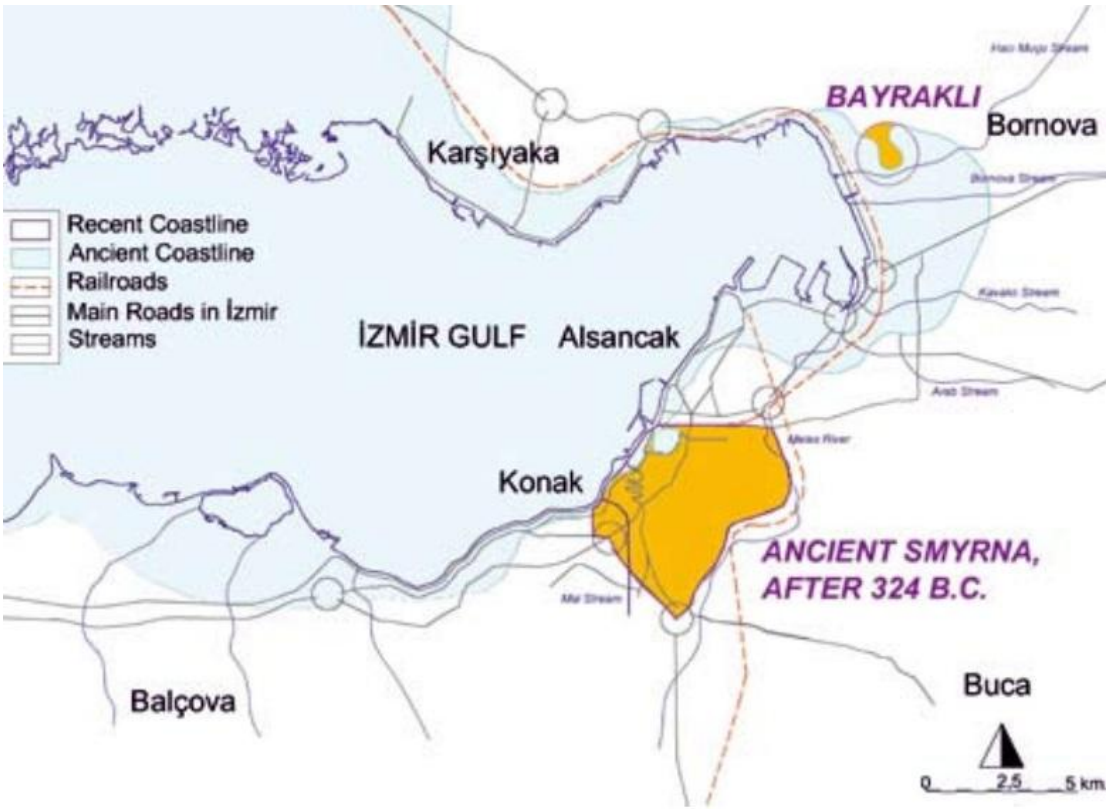
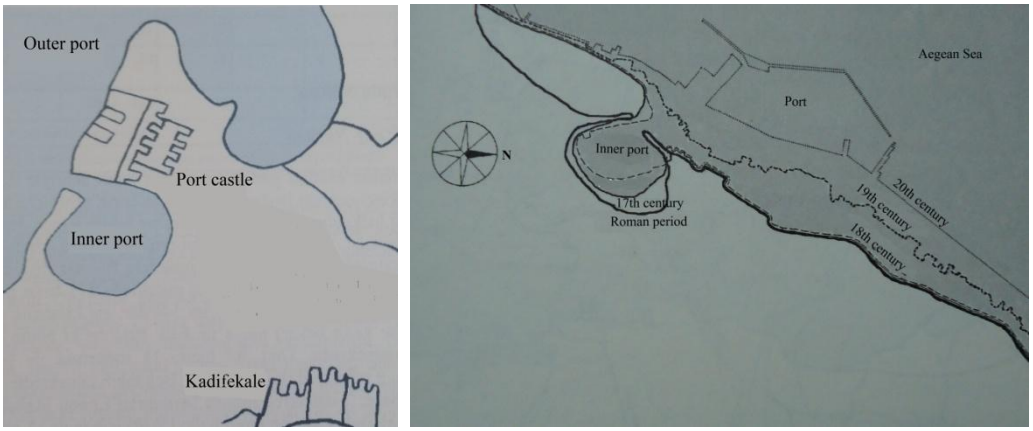


Figure 3-1: The old and recent coastlines and the ports in İzmir, and the evolution of the city (Belge, 2012, p.336)



(a) (b)

Figure 3-2: (a) İzmir port in the 16th century (Kütükoğlu, 2000, p.23) (b) İzmir coastline and port in different centuries (Küçükkalay, 2007, p.63)

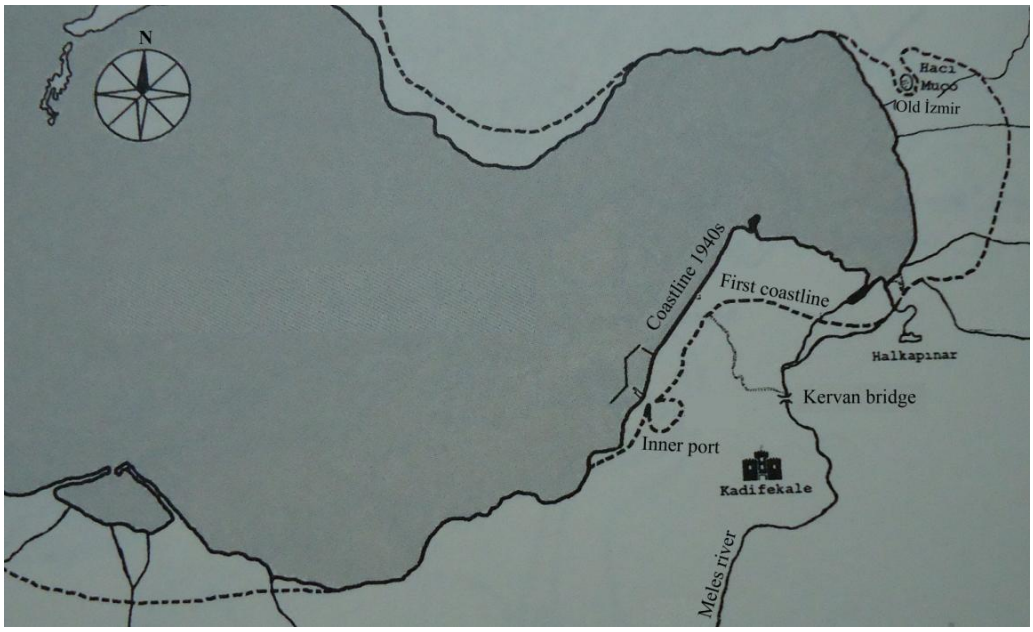


Figure 3-3: The evolution of İzmir coastline until the 1940s (Küçükkalay, 2007, p.64)

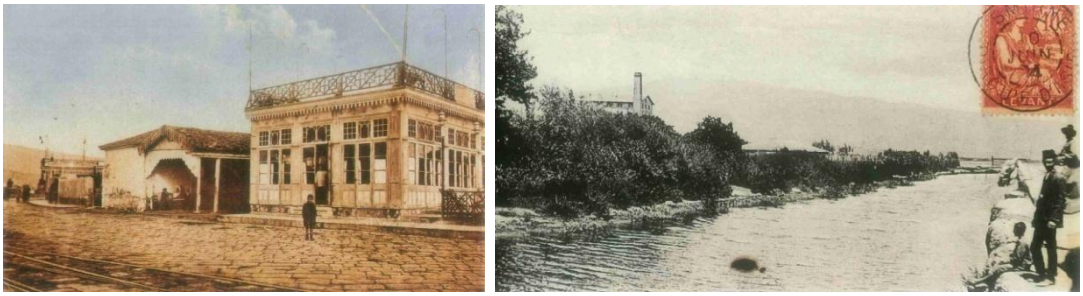
Karadağ (2000) mentioned that the Ottoman Empire hold 282 industrial plants according to the statistics on 1913-1915. İzmir had 62 of them while İstanbul had 155, which shows the basis of the development as being the second industrial center. In this period, Çimentaş (1950), Taç Textile Industry (1952), Sümerbank Complex (1953), DYO in dyeing industry (1953), Bayraklı Dyeing Industry (1957), Betontaş in concrete manufacturing (1955), Metaş in rolling plant (1956), Etitaş in transformer production (1957) were founded as outstanding developments.

Besides the industrial plants, another significant entity was the fairground in the Republican period. The fairground, located in Alsancak, was formed in 1936 as a cultural park that aimed to develop touristic, cultural and trade relations. It hosts festivals; events related to art, business, leisure, and so on; trade platforms in cooperation with various cities and countries as an international fairground. The raise on the commercial facilities and the development of the relations regarding the port activities created the need for more comprehensive port in the second half of the 20th century since the existing port was insufficient. Therefore, a pier was constructed in Alsancak in 1952 and it was enlarged to the contemporary port in 1959 with the addition of passenger lounge in 1969. The current port on the north could be seen in figure 3-1. Last but not least, warehouses were also taken important place within the economy of the city. The warehouses were belong to different institutions as public or private, which were mainly intended use of wheat silos, cotton, grape, tobacco, fig and olive oil storages, chill stores, various goods stores, together with storages of railways and ports.

The development of the industry also changed the building types in the city. The buildings related with railway and port had the features of the new construction techniques. Large spaces built with steel construction elements, polygonal and cut stone walls, cast columns and joist floors were the main characteristics. The general image for the industrial buildings of İzmir in the 19th century were the Neoclassical style with simple and rational features (Çıkış, 1999).

(a) (b)

Figure 3-4: (a) French customs house, the 1880s (Atay, 1998, p.100) (b) Pasaport and dock, the 1915s (Atay, 1998, p.14)



(a) (b)

Figure 3-5: (a) The dock and Punta, the 1900s (Atay, 1998, p.104) (b) Meles, the 1900s (Atay, 1998, p.21)

3.1. General Characteristics of Liman Arkası District

In the urban scale, the study area is located in the boundaries of Konak, one of the central district of İzmir metropolis, which is surrounded by İzmir gulf and Bayraklı in the north, Bornova in the east, Buca and Balçova in the south (Figure 3-6). Konak is known as the center of culture, art, entertainment and commerce of İzmir, and also a significant zone for tourism facilities. In other words, it is the heart of the city. When looking at the surrounded districts, Bayraklı is the second oldest settled land as mentioned. However, the scene is quite different now with the skyscrapers. Bornova is one of the most developed districts in the city in every aspect, and also hosts the earliest settlement of İzmir. Besides, Buca and Balçova are large and crowded districts, taking part in the history of the city. Buca mostly preserves its historic fabric and Balçova occupies an important place with its historic hot spring. In brief, it is seen in wide scope that the study area has risen in the midst of the substantial districts of the city within its historical background.

When examined in the near scale, located in the north of Konak, the site is bordered with the port in the north, the railway complex in the west, Meles Rill and Mürselpaşa Street in the southeast. A triangular zone is consisted of these boundaries, especially with the intersection of railway and Meles river. Alsancak railway complex played a central role for developing the site mainly as industrial district. The area was named with the backyard of Alsancak port after its construction, which called as Liman Arkası containing Ege and Umurbey districts

with the small part of Halkapınar district (Figure 3-7). Umurbey district already covers the site while Halkapınar includes the negligible part at the east corner with the sections of the highway, river and green area. Additionally, there is Ege district which includes mainly residential units. All of the characteristics will be mentioned.

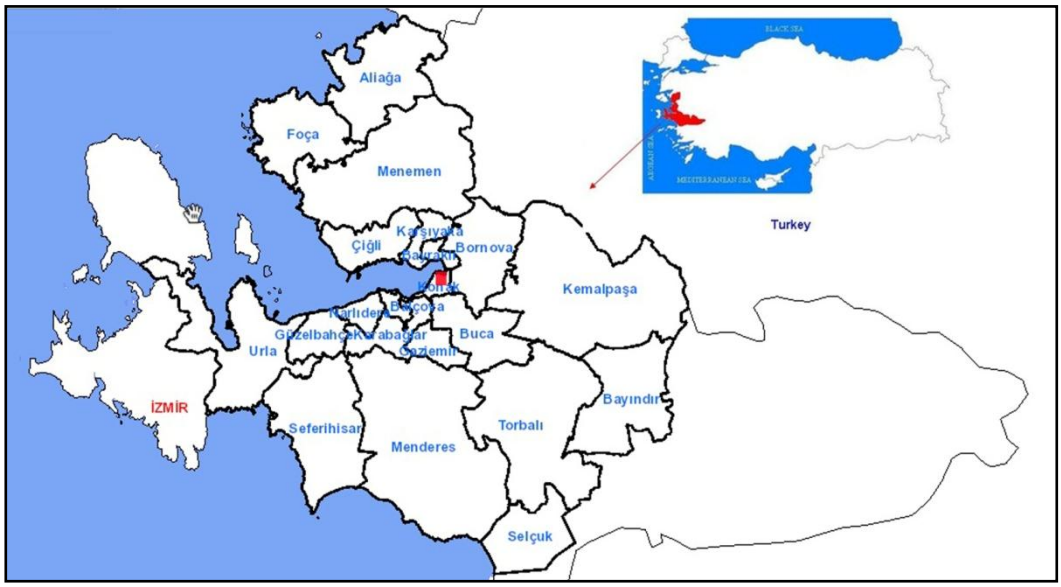


Figure 3-6: Location of the study area within the city boundaries, and other districts[111]

As defined in the introduction chapter, the physical situation of the study area will be presented at this part with the methodology of site survey based on observations, photographing and mapping mainly including analyses on category of edifices, open and built up areas, structural system, building height and accessibility on site.

Liman Arkası has different types of structures with varied functions and particular architectural characteristics; which are disused, restored or in-service industrial buildings, warehouses, workshops, dwellings, railway and its annexes, cultural centers serving social facilities, offices, shops, educational units, green areas, port, stadium and demolished sites. Since the site is quite complicated with regard to land use, it is thought that analyzing the area in terms of building category should be the first attempt; because, the buildings themselves have been significant for

[111] http://magnificentturkey.weebly.com/izmir_.html, http://cbs.izmir.bel.tr/2DRehber/Default.aspx

conservation whatever the usage is (Figure 3-8). While stating the building category, the continuity of original function was not taken into consideration.

At this point, another important analysis in the study area, which will be interpreted with the building category, was structural system separated into three (Figure 3-9). These can be classified as traditional construction systems; early examples of steel and reinforced concrete structures; and new buildings. Traditional buildings represent architectural characteristics of a period, constructed with traditional techniques and materials; such as stone and/or brick masonry, and timber structures. These were generally constructed in the 19th and in the beginning of the 20th centuries. Following, the early examples of reinforced concrete and steel structures were separated than the others classified as new. Although the use of steel and reinforced concrete could be counted as new structural system, these buildings in the site should have been considered independently since they reflect specific architectural characteristics as being first and showing the development of the site. These were mainly built in the first half of the 20th century. On the other hand, buildings constructed with modern techniques and new materials were regarded as new, broadly built in the second half of the 20th and in the 21th centuries. Besides, buildings which lost their traditional features after extensive interventions were accepted as new.

In this case, shown in figure 3-8 and apart from the current functions, categories of edifices in the study area are stated as;

-Production & Buildings related with production
-Storage
-Housing
-Commercial
-Turkish State Railways
-Management
-Water tower
- Education
-Religious
-Fountain
-Stadium
-Others

This classification is mainly based on architectural characteristics of buildings within the general characteristics of the study area. Production, storage, housing and commercial units have to be especially distinguished than the others considering the development of the site, and also buildings related with production need to have special attention since they have been emerged together.

When examining, production units, widely settled in the study area, include single factories or industrial complexes with their annexes and landscape. In the study area, production units could be seen with various construction techniques, consisted of large single spaces of high one storey with free standing or suspended roofs, also with arched or rectangular openings on facades independent from storey. Traditional production units were generally constructed as rubble stone and brick masonry with wooden structured gable roof of Mediterranean tiles. Also, reinforced concrete and steel structures with steel roof were regarded as being prototypes, as mentioned. These industrial plants with their original functions could be listed as Gasworks, Electric Plant, Şark Industries Factory, Flour Plants, Sümerbank Complex, Tile Factory, Tariş alcohol factory and Bağ (Gomel) Oil Factory, additionally other small scaled production units (Figure 3-8). Other small scaled production units defined as new were constructed of steel skeleton and metal roofing or reinforced concrete with gable roof covered with Mediterranean tiles or various materials.

Continuing with storage units, they were spread over the area as well as the production units, which could be seen in figure 3-8. Warehouses show similar architectural characteristics with small scaled production units in terms of space and construction technique; however, they can be distinguished by facade organizations. They have large single spaces; traditional ones were two storey heights and constructed as rubble stone and brick masonry with wooden structured gable roof of Mediterranean tiles (Figure 3-10). Facade organizations are not same at all warehouses but openings are smaller and less in number with comparison to production units. Rectangular or arched window and door openings include stone frames. They have also circular windows, as one at front facade or several at lateral facades. On the other side, new warehouses were constructed as reinforced

concrete, steel or gas concrete with gabled roof covered with Mediterranean tiles or other materials and some of them have skylights (Figure 3-11). New storage units were generally agreeable with their two or three storey heights, mass proportions and similar roof characteristics. Besides, some of the warehouses have unplastered rubble stone infill with reinforced concrete structure (Figure 3-12). These were either traditional structures which lost their original features with the interventions or traditional materials were used with the new construction system.

Following, housing units are another building type which hold significant place in site both as traditional and new. Traditional houses are one or two storey, generally with basement, attached buildings and some of them have also courtyard (Figure 3-13,14). Construction system is brick masonry or stone and brick masonry, some of which with timber oriel window, covered with timber construction hipped or gable roof of Mediterranean tiles. Windows and doors have stone frames, some of which are ornamented, and the entrance is generally positioned after a few stairs with a pillared door. New houses, on the other side, were mostly constructed with reinforced concrete and brick infill, some of which have balconies. They are generally two or three storey but larger in proportions. Furthermore, council housing and lodging are another types of residential units with three or four storey, constructed with reinforced concrete system. Lodgings of Sümerbank were referred as prototypes in the structural system analysis as part of the industrial complexes.

Commercial units observed in the study area can be classified as two types; one of which are structures of one storey small retailers, traditional or not, and the others are commercial units located at ground floor of residential units (Figure 3-15). Houses with commercial units were described in traditional architecture. Commercial units have wide openings in ground floor serving different facilities and they are used with residential units at upper floors. This type of usage is also seen in new structures in the study area.

Besides, management structures are another type of buildings used as offices and public buildings. They could be separated than the others with their different architectural characteristics. These buildings were constructed of reinforced

concrete of multi storey. They stand for modern architecture with facade organizations of horizontal and vertical windows, or composite facade claddings (Figure 3-16).

In addition, stadium, education and religious buildings were considered apart from the others while defining the category, since they are rare at the site, whether or not they have specific architectural features. Other rare structures in the study area are water towers and a fountain. Water towers are located in the industrial complexes, one of which stands in Şark Industries and the other one is within the site of Sümerbank. The fountain is inserted into the wall of Şark industries complex. Indeed, water towers and fountain are already different types of buildings with their specific architecture. The fountain was built of marble and framed with mosaic containing cement. Water towers, on the other hand, were constructed as reinforced concrete structures climbed with steel stairs (Figure 3-17).

Continuing, other buildings consist of new structures with various construction techniques and materials such as concrete or steel. These do not have specific architectural characteristics and generally unqualified structures with the functions of storage, production, trading and offices. Some of which are contradictory with the site in terms of their mass proportions.

Last but not least, the structures of Turkish State Railways were considered as specific building types in analysis of building category. One of the reasons for this approach is that Turkish State Railways was not included to the study area as being the boundaries for the site. Another reason is that the buildings belonged to Turkish State Railways have specific architectural characteristics with their featured stone masonry, which were revealed instinctively. Buildings were constructed of cut stone or rubble stone, generally with corner stone and covered with gable roof of Mediterranean tiles with short eaves or parapet walls. Door and window openings have different forms as rectangle, arched and triangular with stone framed (Figure 3-18,19).

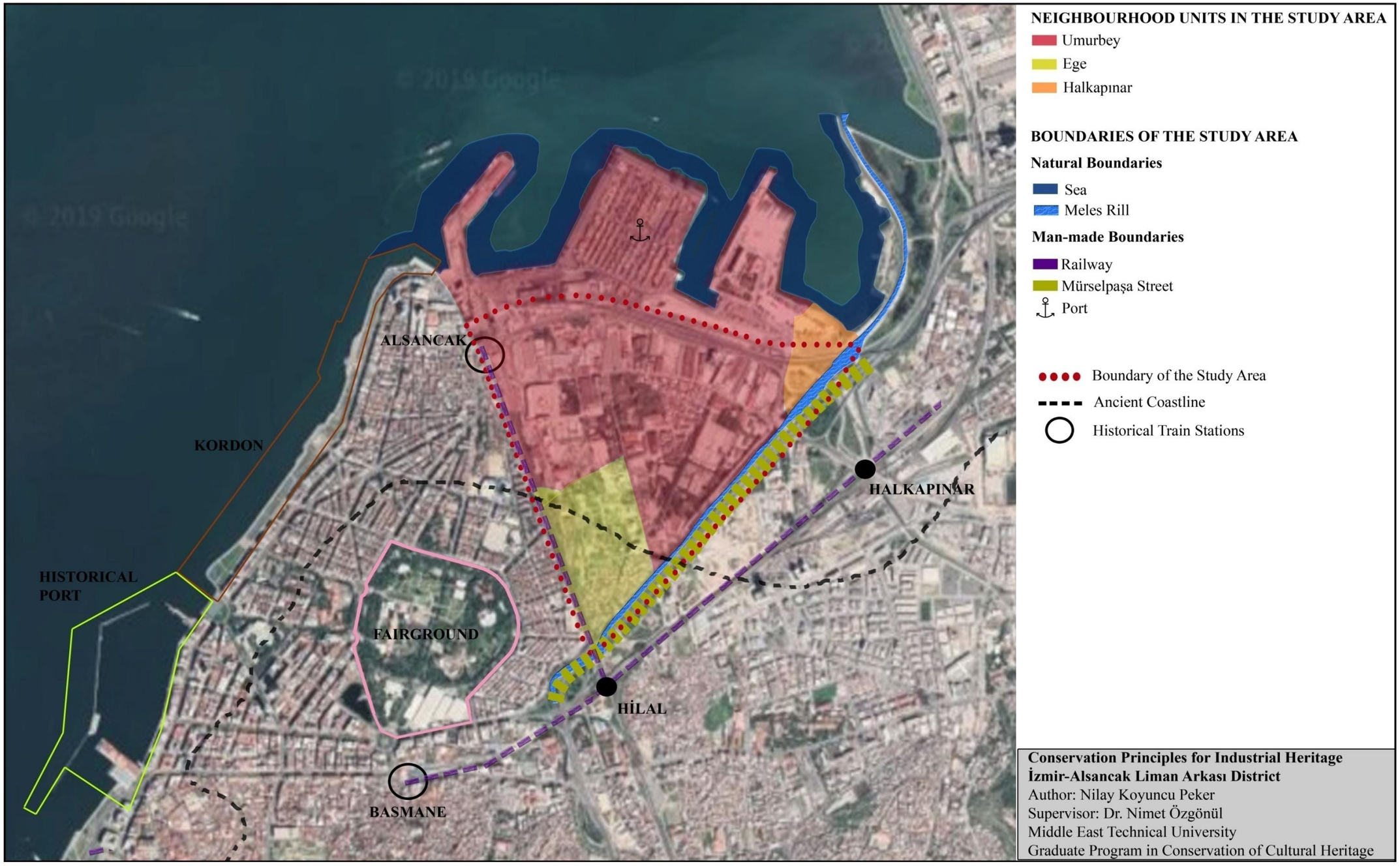


Figure 3-7: Neighborhood Units & Boundaries in the Study Area

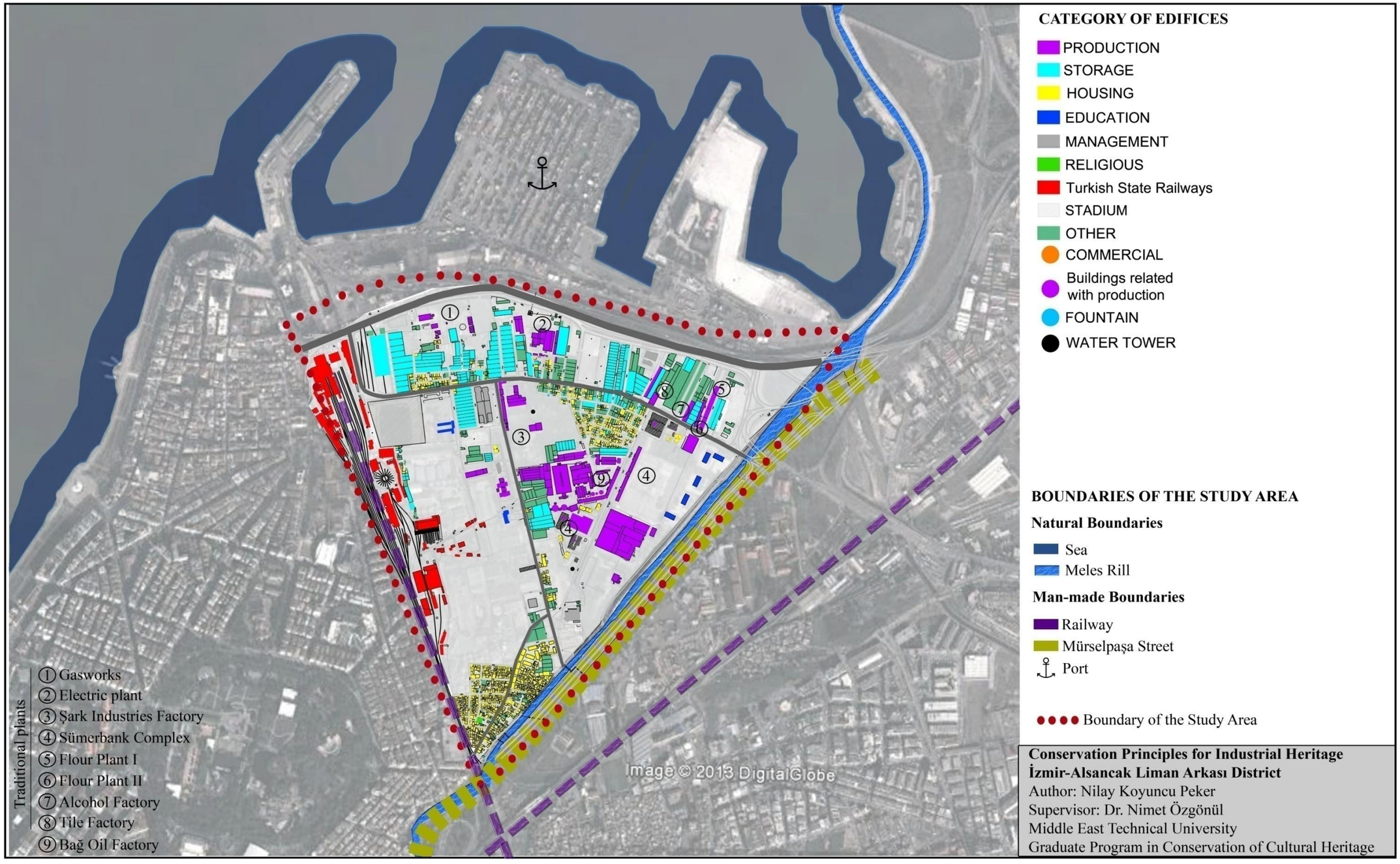


Figure 3-8: Category of Edifices in the Study Area

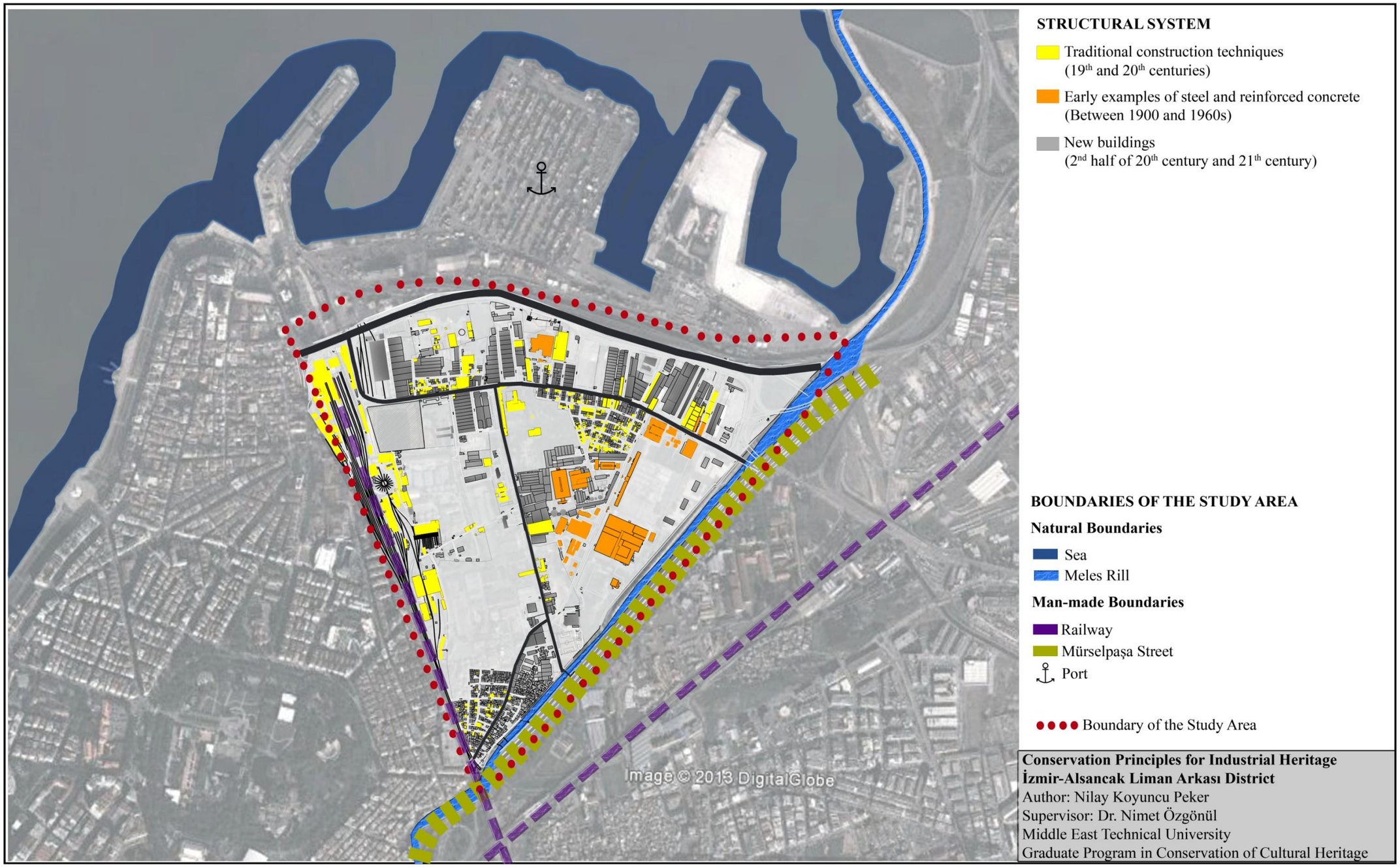


Figure 3-9: Structural System in the Study Area.

Figure 3-10: Traditional unused warehouses (Author, 2015)

Figure 3-11: New warehouses (Author, 2015)

Figure 3-12: Warehouse with various characteristics (Author, 2015)

Figure 3-13: Traditional residential units, attached (Author, 2015)

Figure 3-14: One storey residential unit (Author, 2015)

Figure 3-15: Traditional house with commercial unit (Author, 2015)

Figure 3-16: Buildings serves as management units (Author, 2015)

(a) (b)

Figure 3-17: (a) Water tower located at Şark Industries (b) Water tower belonged to Sümerbank Complex (Author, 2015)

Figure 3-18: Turkish State Railways, the station (Author, 2015)

Figure 3-19: Turkish State Railways, annexes[112]

Considering the arteries of the site, railways are the most remarkable ones which are İzmir-Aydın and İzmir-Turgutlu, intersecting on the south part of the area. İzmir-Aydın railway is the one lying on the west of the site, mentioned as the boundary. İzmir-Turgutlu railway is located out of the study area almost parallel to Mürselpaşa Avenue in a close view. The importance of these railways for the city will be held on the next part, which is 'History and Development of the Area'. İzmir-Aydın line works as an urban rail (İzban), continuing to the north and lying next to İzmir-Turgutlu railway line. The closest stations to access the area are Alsancak, Hilal and Halkapınar. On the other side, İzmir-Turgutlu railway is operated as a metro line, which of the stations are repeatedly Hilal and Halkapınar. In addition, there is a tramline running through Liman and Şehitler streets, ended in Halkapınar. The bicycle line along the shoreline could be also a possible choice for the connection with the area, which may be thought as interrupted in the port section. Moreover, Alsancak ferry port, standing very close to the site, is another alternative to access Liman Arkası via public transport. (Figure 3-20) Last but not least, roads are substantial to get access. Mürselpaşa and Liman streets, as the boundaries, are the main roads for the site. Up to now, various choices to access the periphery of the site were mentioned. There are many options connecting the site to other neighborhoods. However, it is important to point out the accessibility within the

[112] http://cbs.izmir.bel.tr

site, which provided by streets. Liman and Şehitler streets are main relevant routes for the site, parallel to each other. İşçiler street is also significant due to the fact that it is laid almost in the midst of the study area. Likewise, 1525 and 1517 streets are important arteries within the area, serving as secondary roads due to the access frequency. Bus lines working on these roads, on the other hand, could be used for the connection to the site. These are long streets having the characteristics of main roads in view of the site scale, regardless of the usage. Minor streets are also prominent for Liman Arkası district since the site contains industrial complexes standing on extensive lands. Warehouses built side by side and attached buildings also limit the accessibility. Additionally, some of the minor roads are used as privately. At this point, there are six minor streets connecting Liman and Şehitler streets; however, two of them are used limitedly due to the security of the buildings. One of the streets is next to Tariş Head Office while the other one stands between two flour plants. The rest of the minor streets can be seen in figure 3-20. The long garden walls of Gasworks and Electric plant prevent the access through Liman street. There are much more connections at the side of Şehitler streets yet they mostly end with the private parcels, which fail to reach the Liman street. The situation is similar through the facades of Şark Industry and Sümerbank Complexes. Sümerbank Complex has a few entrances to its land through 1525 street, and one from Şehitler street. Şark Industry Complex, on the other hand, has the entrance only from Şehitler street. In order to access Bağ Oil Factory, the streets through the garden wall of Şark Industries or the streets within the residential district could be used. Residential units have adequate street pattern in favor of small parcels. (Figure 3-20)

The general categories and structural features of the buildings were mentioned above. Here, the usage and physical condition will be pointed out to expand on. Determining the land use in general, production units are used as offices, cultural center, car showroom, university, sales units, out of use or active. Warehouses are utilized as storages as well, workshops, offices and sales units, art gallery, car showroom, vehicle repair shops, night clubs. Residential units are used as offices and commercial activities such as small cafes or grocers except housing. Defined management buildings are run mainly for offices and a few public buildings. Rest of

the buildings defined as other in building types are popularly used as car showroom and vehicle repair shops, offices, sales units, ateliers or disused.

The large area rest between Liman and Şehitler streets is the most lively part of the site. The restored historic industrial buildings and warehouses are mostly placed at this section, used for commercial, educational, cultural and amusement facilities. **Gasworks** and its annexes have been used as a cultural centre after the restoration (Figure 3-23). **Flour plants** are also restored buildings. Flour plant I has been serving as Yaşar University; however, it is currently in a restoration process to be a museum (Figure 3-24). The buildings of Flour Plant II have reused as office buildings of Mediterranean Shipping Company, connected with a closed bridge (Figure 3-25). One of the buildings of flour plant II is located next to the Flour plant I, at the side of Şehitler street. There stands former **Tariş Alcohol Factory** very close to flour plants, which is used now as a car showroom (Figure 3-26). Going ahead on Şehitler Street towards west, former **Tile Factory** could be seen opposite to 1525 street. Tile factory is used as sales unit currently. There is another building standing on 1524 street near the tile factory, which appears like another production unit; however, it was registered as store. Other significant industrial heritage at this section is **Electric plant** which is the only one not restored and in a very bad condition due to abandonment and neglect (Figure 3-27). Following production units, the rest of the area between Liman and Şehitler streets mainly contains warehouses, a part of residential units, a mosque located at the corner of Şehitler and 1502 streets, management building on Liman street, and other structures. Some of the historical warehouses were repaired individually and utilized as night clubs, car showroom or repair shops. Besides, housing zone is placed between 1494 and Şehitler streets, some of which were registered and architecturally qualified.

It was mentioned that this part is the most alive area; however, it does not mean that physical conditions of the buildings are satisfying. Traditional or new, many structures are out of repair and some of them are architecturally unqualified.

It is observed that there are large vacant lands since most of the buildings were demolished by examining the rest of the Umurbey district remaining between

Şehitler Street and Ege district. To start with, Alsancak stadium was destroyed disputatiously by stating the reason that the structure is risky. A new stadium is currently constructing at the same place (Figure 3-28). Next to Alsancak stadium, buildings of Dokuz Eylül University had been located before destruction; a few buildings of which have remained currently, stated as education in analysis sheet of building category (Figure 3-8). Also, unregistered Tariş buildings containing factories, offices, warehouses were wiped out where stood between Alsancak stadium and Ege district (Figure 3-29). The area is enclosed as being a construction site but there has not been any construction works. There are some storages and residential units standing next to the annexes of Turkish State Railways. Also, particular building serving as greenhouse is located in the midst of vacant land of Tariş. Nearby, an educational unit used as primary school is located on 1499 street. Besides, some small scaled concrete production units, belonged to District Directorate of Food, Agriculture and Livestock, are located at the east of former Tariş cologne factory, original function of which could not be known (Figure 3-30). Lastly, management buildings are located at the corner of İşçiler and Şehitler streets, which provides service for some sales units on ground floor, office buildings for different newspapers and news agencies (Figure 3-16). Even if there are buildings in use, the west of İşçiler street was perished in a critic manner.

Looking to the east of İşçiler street, **Şark Industries Factory** remarkably stands in a large parcel located at the corner of İşçiler and Şehitler streets, where there is no possible way to enter. The long facade of group of its buildings are risen on the wall through İşçiler street (Figure 3-31). The factory has not been in use for a long time and stands wrecked. It also has a water tower at the yard, and a fountain named Piyer Verbek is located at 1512 street inserted into the garden wall, as mentioned above.

Another large parcel of the traditional industrial buildings is **Sümerbank Complex** standing between 1525 and Şehitler streets. Part of the rest is located on 1525 street towards the south. Sümerbank has been a complex with its factory and buildings related with production, offices, public housing, social building, mosque and green areas, which is the most extensive parcel at the study area (Figure 3-32,33,34). At

the west part of 1525 street, there stand lodging buildings currently belonging to National Education Directorate of Konak, evacuated due to the risky structure. On the north of these housing units, the other mentioned water tower grounds remarkably within Sümerbank Complex. Currently, limited part of the complex is being used as educational facilities in new-built structures standing at the east of the complex and entered from Şehitler street, named as "Nevvar& Salih İşgören Education Campus". The rest of the complex has been still derelict. Some of the production units were demolished completely and the roofs of large buildings at the south part were devastated. The complex is in very bad condition.

Between Sümerbank complex and Şark industries factory, other housing zone, mentioned above, is placed with small-scaled commercial buildings and warehouses, some of which are traditional. On the north of the housing units and Şark Industries Complex, an oil factory, called as "Bağ Yağları", has been in use rest on almost thirty decare. This factory has been working here since 1936 and now it is the biggest one at the site, which have been still in function. On the west of this oil factory, big scaled storage units and ateliers are serving. Through the south of İşçiler street, there are some housing units standing messy as not physically connected to the site. Another management building belonging to a special television channel "Ege Tv" is located at the south of İşçiler street and the other one stands at the south corner of 1525 street, which is belonged to a special company "İzelman". Also, there are some distinct utilizations on the south of Sümerbank, such as a horse shelter and a bird market.

Determining the site as a triangular area, Ege is the southest part known as a residential district of low income groups, mostly Roman people. The neighborhood includes traditional and new houses, religious buildings and others. Religious buildings involve a new mosque located at 1547 street and an unused church standing very close to the mosque at 1553 street. Church was built with traditional construction system of stone and brick masonry with stone framed openings, which of facades remained only. The dwellings are generally hovel and not featured architecturally. There is also council housing on the east part of the district which is out of condition and structurally risky (Figure 3-35). Additionally, there are some

commercial units and commercial with residential units mostly located through 1517 street which positions as a main road of district.

İzmir Greater Municipality states that the district is a shanty settlement with the lack of physical and social infrastructure. As a consequence, it is physically and socially disconnected to the city center although its location is quite attractive and valuable. Additionally, Ege district is accepted as an obstacle between the city center and historic industrial area. The district has been the subject of urban transformation scenarios for a long time since the area has some problems arising from economic and social conditions. Current transformation project for Ege district will be discussed in coming sections.

After giving information about building types and category in general, it may be relevant to touch on another analysis about built-up areas showing the height of the buildings at the study area (Figure 3-21). It was mentioned that there are buildings from one storey to multi storey in the site, but the storey heights are not standardized. That's why the analysis was done based on the height of the buildings and limits were determined according to traditional buildings. According to that, there are six different classification related to building heights;

- Buildings lower than or equal to four meters,
- Buildings between four and six meters or equal to six meters,
- Building between six and nine meters or equal to nine meters,
- Buildings between nine and fifteen meters or equal to fifteen meters,
- Building between fifteen and eighteen meters or equal to eighteen meters,
- Buildings higher than eighteen meters.

In this case, the site generally includes buildings lower than six meters or equal to six meters. Buildings between six and fifteen meters follow this. So it appears that buildings higher than fifteen and eighteen meters generate small part of the site. To evaluate, the general image of study area regarded building height is comprised of

four or six meters buildings mainly involving residential units, commercial units, warehouses and production units; however, there are remarkable amount of buildings between six and nine meters including houses, warehouses, production units and buildings related production. Also a considerable amount of nine and fifteen meters buildings consist of production units, storages, houses and others. Though, there are buildings higher than fifteen and eighteen meters both in traditional and new buildings including a few factories and warehouses, management units and water towers.

Following the analysis on built-up areas, it is significant to specify the characteristics of open areas within the site. In figure 3-22, open and built-up areas of the study area were classified as;

- Industrial landscape
- Gardens and courtyards
- Open areas of public buildings and such
- Parks and other green areas
- Destroyed open areas
- Car parking
- Unidentified open areas

First of all, industrial landscapes are termed as open areas of industrial heritage defined by lot boundaries mostly having natural elements or other architectural elements related to production, which emerged together with factories. Industrial landscapes cover great extent within the site. Secondly, gardens and courtyards were named as open spaces defined by lot boundaries and privately used belonging to residential units, commercial units or others. Thirdly, open areas of public buildings are belonged to public buildings, management or educational units, which were defined by lot boundaries, privately used and open to public within the limits of some orders. Continuing, parks and other green areas were specified as publicly

used open areas having natural elements and not defined with any borders. Destroyed open areas, on the other hand, are identified as vacant lands defined by lot boundaries, not in use and some of which involve building rubble. Destroyed areas also cover large fields in the study area. Car parking refers open areas defined by lot boundaries, covered with firm ground and used for trucking rig or private car parking. Lastly, unidentified open areas were determined for open areas defined by lot boundaries publicly or privately used, but not having any characteristics to specify.

To sum up in general, Liman Arkası is a huge area containing various types of structures with large or small dimensions built in different years. It can be observed that traditional and new buildings have been composed at the site, some of which were registered and some of which could be neglected. The general building types consist of production units, warehouses and residential units, which are mainly lower than six meters or between six and fifteen meters height. Besides, İzmir-Aydın railway, the station and its annexes are located at the west of the area. The historical production units include different types of industrial plants with particular architectural features, which are Gasworks, Electric plant, Şark Industries complex, Sümerbank complex, Flour plants, Alcohol factory, Tile factory and Bağ (Gomel) Oil factory. They were constructed as stone masonry, stone and brick masonry, steel framed with brick infill or reinforced concrete. Traditional warehouses, on the other hand, have similar architectural characteristics with their construction techniques, roof forms and facade organizations. Some of these industrial plants and warehouses have been using after the restorations; however, some of them are idle in poor physical conditions. Electric plant, Şark Industries and Sümerbank are former industrial plants that are not in use. Other storage units, specified as new, were constructed with different materials but they generally have similar mass proportions or architectural features. Other structures at the site consist of different categories as commercial, management, education etc. Some of these buildings are contradictory to the study area. Besides, residential units zoned at three different regions could be distinguished from other structures with their small dimensions of parcels. Many traditional houses are also in bad condition due to the neglecting.

Looking the site from a distance, historic industrial plants could be seen with their remarkable masses and architectural elements such as the chimney and water towers. However, some of the new structures also challenge the historical view of the site with their proportions. When the open and built-up areas were examined, it is seen that open areas spread an extensive area. However, these mostly cover the industrial landscape and destroyed lands. Industrial landscapes of Sümerbank and Şark Industries complexes come first to have extensive lands within the site. Destroyed terrain of former Tariş complex also creates a huge open space on the west side of the study area.

After all, it is seen that production units, active or not, and warehouses overspread the study area, which is actually spotlight for the site. Residential units follow them as part of the industrial context.

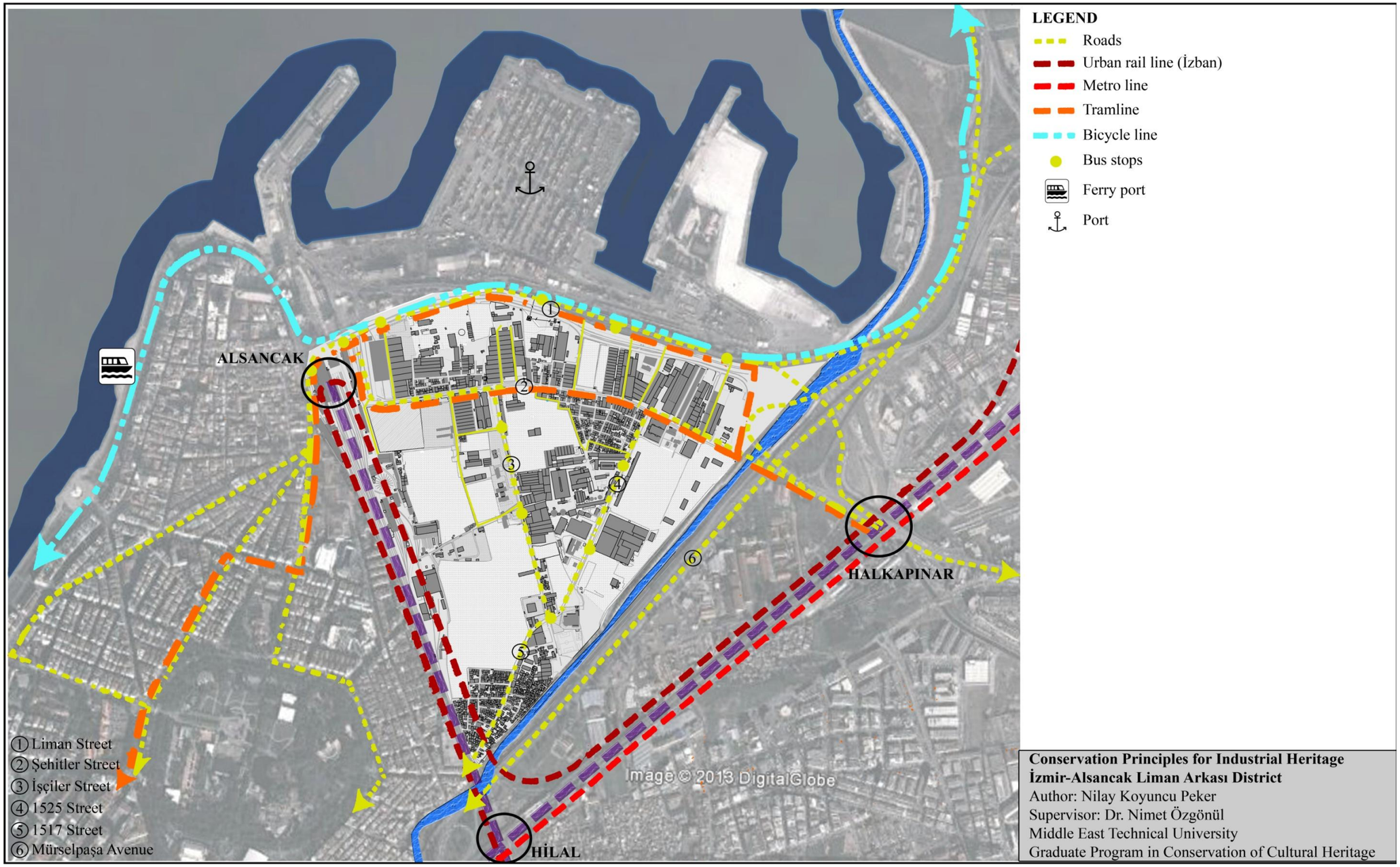


Figure 3-20: Accessibility in the Study Area[113]

[113] Produced by the author with refer to the map in https://www.eshot.gov.tr/CKYuklenen/izmir_ulasim_haritalari/v2/izmir_kent_harita.jpg

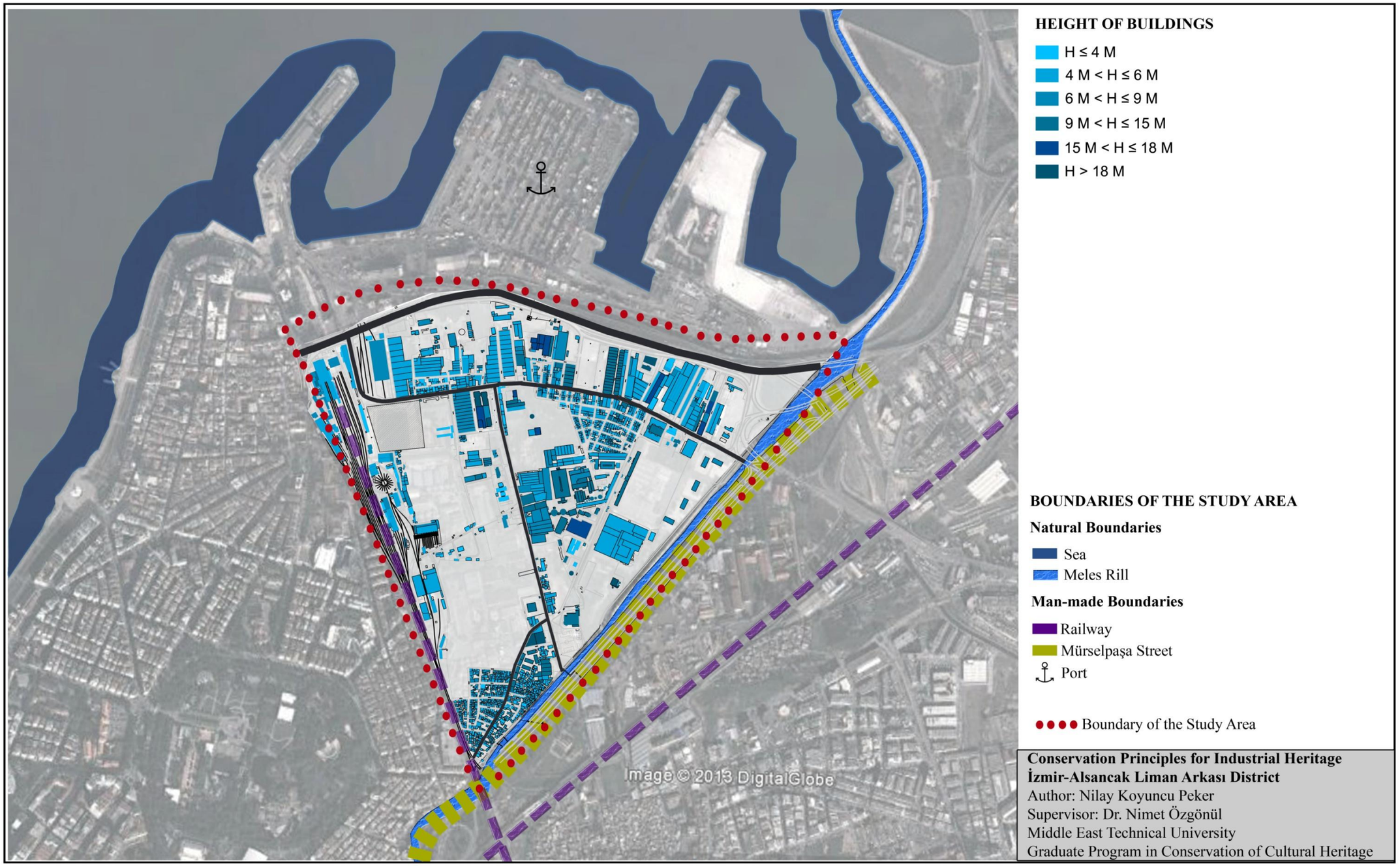


Figure 3-21: Building Height in the Study Area

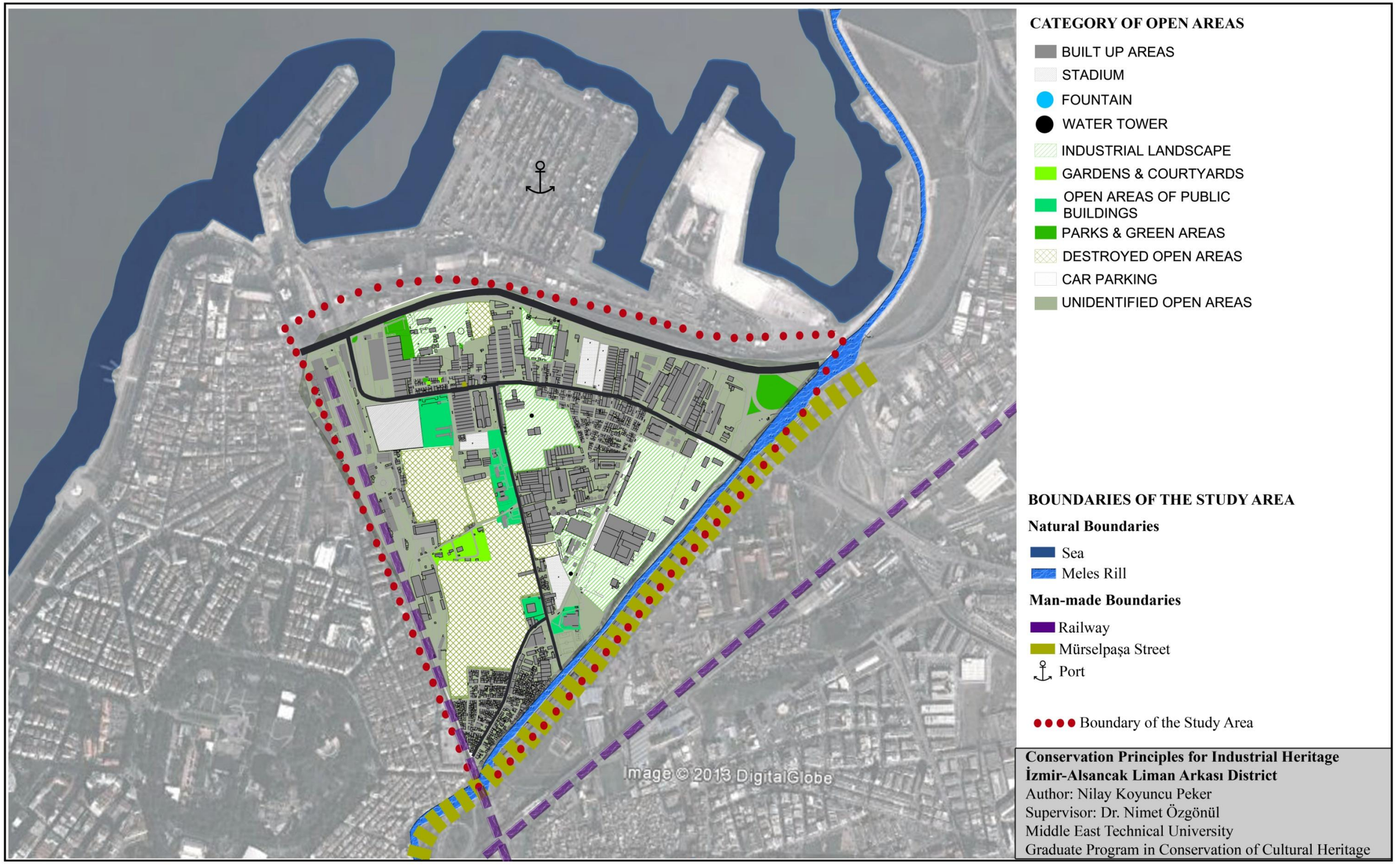


Figure 3-22: Category of Open Areas in the Study Area

(a)

(b) (c)

Figure 3-23: (a) Gasworks Complex (Google earth image, Hüseyin Doğan, 2018)
(b) Foundry (c) Ateliers and representation of gasometer (Author, 2015)

Figure 3-24: (a) Flour Plant I (b) The side elevation in restoration process
(Author, 2015-2019)

Figure 3-25: (a) Flour Plant II (b) The elevation of flour plants I and II (Author, 2019)

Figure 3-26: (a) Tariş Alcohol Factory (b) Tile Factory (Author, 2015)

Figure 3-27: Electric Plant (Author, 2015)

Figure 3-28: New Alsancak stadium (Author, 2019)

Figure 3-29: Demolished lands of Tariş (Author, 2015)

Figure 3-30: Small scaled production units (Author, 2015)

(a)

(b)

(c)

Figure 3-31: (a) Şark Industries Complex (Google earth image, Güven Karyeniç, 2016) (b) Main entrance (c) Mill (Author, 2015)

(a)

(b)

Figure 3-32: (a) Weaving mill of Sümerbank Complex (b) Lodging of Sümerbank Complex (Author, 2015)

(a)

(b) (c)

Figure 3-33: (a) Social facility of Sümerbank Complex (b) Demolished guard building and print works building (c) Guard building (Author, 2015)

Figure 3-34: Sümerbank Complex, destroyed production units and new structures, 2018[114]

[114]https://www.google.com/maps/@38.4342442,27.163534,3a,90y,250.7h,47.23t/data=!3m8!1e1!3m6!1sAF1QipNMcTbl_Kw_m6yzzpxUmL38ehZkCxjKUAxdvES3!2e10!3e11!6shttps:%2F%2Flh5.googleusercontent.com%2Fp%2FAF1QipNMcTbl_Kw_m6yzzpxUmL38ehZkCxjKUAxdvES3%3Dw203-h100-k-no-pi0-ya319.46402-ro0-fo100!7i14000!8i7000

(a)

(b) (c)

Figure 3-35: (a) Council Housing in Ege district (b) Remained facade of church in Ege district (c) Street from Ege district (Author, 2015)

3.2. History and Development of Liman Arkası District

At this section, history and development of the study area will be examined in detail in order to understand how it has evolved in time. Previous studies and books about İzmir were the main sources at this point. Further, maps were quite significant sources giving information about the alteration of the city through the years. Moreover, engravings and narratives were also referenced materials concerning the historical times.

The history of the industrial district will be handled in three parts; physical development, planning and conservation. A chronological planning history is significant for us to identify approaches on the study area. In other words, it is necessary to state that, put into practice or not, all planning approaches will be considered within the scope of this thesis. Last but not least, what have been carried out at the site in the context of conservation until today will be reviewed; which may be a remarkable section due to the subject of thesis.

3.2.1. The Physical Development of the Area

In this part, it is aimed to explain the physical development of the study area in a chronological manner in order to understand how it spread. At the introduction of this chapter, it was mentioned that the settlement in İzmir initiated in the Neolithic period and it was apparent after the 16th century; however, it was not likely to cite a settlement at the study area in those years. Le Bruyn[115] told of two mills used for irrigation close to Meles river at the east and north of the city in the 17th century (Beyru, 2011, p.23). The definition of place is close to the location of the site yet Meles had many tributaries within the city and people had always been using the name "Meles river" in Smyrna.[116] When it is thought that Meles river was arisen

[115] Le Bruyn, Cornelis de Bruijn, was a Dutch artist travelling around who had visited İzmir at different times between 1678 and 1681. Thus his observations give information about the end of the 17th century of Smyrna. (https://en.wikipedia.org/wiki/Cornelis_de_Bruijn)

[116] Slaars (2001) wrote about this conflict deeply (pp. 159-182). After a long discussion, he finally came to a point that ancient Meles was the one arisen from Diana Baths in Halkapınar. The book could be referred in order to have a broad information about discussions.

Doğer (2006) come up with another supporter argument about Meles river (p.171). He thought that one can visualize Halkapınar watercourse with the description of Aelius Aristides (Greek author had lived between 117 and 181) about Meles.

from the Diana Baths in Halkapınar, it can be said that the mentioned mill located within the site.

Between the years 1764 and 1765, this area was utilized for excursion and sports (Beyru, 2011, p.36). Seen in figure 3-36, Beyru also mentioned that there was an engraving dating the end of the 18th century, describing an area of "having fun, resting, javelin and similar activities" probably located between Punta and Darağacı (Beyru, 2000, p.271). This supports that the mill seen on the engraving could be the one which Le Bruyn had told.

Figure 3-36: Engraving, 1776 (Beyru, 2000)

In the first half of the 19th century, i.e. the Late Ottoman Period, the site was still an undeveloped area called as the continuation of "Punta" or "Tuzla point" stated in the map. The earliest map giving an idea about the study area is that the one from 1817 (Figure 3-37). It is seen that some small scaled settlements disorderly appeared on the area in the beginning of the 19th century. The city started to slowly expand to the north.

The major developments of the site and its near surroundings occurred in the 19th century as well as the whole city. At this century, the Ottoman Empire started to change with the impacts of the industrial revolution. Trade Agreement at 1838 and the Rescript of Gülhane at 1839 were the milestones for the cities causing alterations on economic, political, cultural and social structure (Bilsel, 2000). The

physical transformation of İzmir in this century could be widely explained by the fact that the Ottoman Empire privileged American, British, French and German companies in the field of railway, gas, tobacco and so on (Goffman, 1990). With this opportunity, foreign enterprisers dramatically increased so many projects were implemented. On the other hand, the fact that İzmir had significant location and relations between the Western cities on trade since the previous centuries played quite important role of these changes. Goffman stated that the transformations at the 18th and 19th centuries were the natural results of the network of the 17th century (1990, p. 130).

The first considerable project of this century was the construction of İzmir-Aydın railway and its station (Alsancak Train Station) which were carried out by four English entrepreneurs privileged by the Ottoman Empire in 1856. One of the most significant subject was the location of the station since it would be the initial point of the railway and it would affect the way of development of the city as well. There were some points related to the location which was mentioned on the report about the construction of railway written by the British consul of that year (Bilsel, 2000). These could be pointed as;

- To construct far away from the city center not to reach high costs,
- To stay close to wide land proper for cargo handling,
- To easy connect with intended port in Punta.

Atay (1998) stated that Greek and Armenian minorities and Levantines were mostly living in Punta in those years and the decision-makers did not want to affect Turkish districts with the construction thus it was another reason of choosing Punta. Besides, the plan of İzmir in 1854-1856 showed a regular settlement in Punta and this settlement plan had been actually done before the decision of the construction of the train station in Alsancak (Bilsel, 2000). In anyway, the placement of the railway and station basically initiated the development of the site as an industrial district.

Within the same year, another demand as foreign capitals to invest in İzmir was from French. Andre Marchais was privileged for the construction of Gasworks at

the end of 1856; however, their attempt remained inconclusive due to the death of Marchais. Following, A. Edwards, a British journalist, signed the agreement for the construction in 1859 and the factory started to be built in 1862 by British fund in Alsancak (Şimşek, 2006).

One of the major projects for İzmir was the second railway which was called İzmir-Kasaba Railway lying between İzmir and Turgutlu. The construction was initiated with the establishment of "Smyrna-Cassaba Railway Company" in 1863 by British. The construction of railway was held quite rapidly as arrived in Turgutlu at 1863, following extended to Alaşehir in 1872 and Manisa-Soma in 1888. The terminal station of railway was built in Basmane, at the east side of city center. (Bilsel, 2000) The locations of İzmir- Aydın and İzmir-Kasaba railways with the stations could be seen at the maps originated in 1876 by Lamec Saad and in 1878 by John Murray (Figure 3-38,39,40). The railways created man-made borders for the study area and considerably affected the physical development. Minorities had been building their prestigious houses, that can be referred to 1817 map, within this area before the construction of railways. Instead, warehouses and industrial facilities were established at the site. Also, low-income minorities, generally Greek families, or workers constructed their houses here (Atay, 1998).

In the 19th century, the constructions of the port and the dock were regarded as the major projects for İzmir due to the contribution to the physical structure of the city. Construction of a port had been discussed for a long time since it was necessary due to the advanced commercial activities especially after 1830 with the increasing usage of steamships, and also natural reasons as floods based on high tide. In 1867, three British tradesmen were privileged to build a port in İzmir including three kilometers dock, a seawall and sewer system. Tradesmen made an agreement with a French company "Dussaud Freres" and construction was started in 1868. However, they had to deal with lots of conflicts such as legal and financial problems. In the long run, French company completed the project alone in 1876, continuing with the construction of a new custom house in 1880. Eventually, there were comprised of four kilometers dock, port of 20 hectares, 1200 meters seawall and a tramline of 3600 meters between Konak and Alsancak Train Station (Bilsel, 2000).

It is known that there were a sports area and a cemetery instead of present Alsancak stadium at the end of the 19th century (Atay, 1978). As seen in the maps of 1876 and 1878, a Greek cemetery was located at the stated area. Some small scaled structures were started to evolve in the site. The buildings such as Gasworks, Pittaco mill and a bone warehouse were regarded as significant on the map (Figure 3-38). Beyru (2011) studied on the original Lamec Saad map by coloring according to the functions. It is seen that the study area was divided into parcels regarding the open areas of mainly vineyards and fields; built-up areas were mainly located on the land along the sea (Figure 3-39). Also, gypsy sheds were shown between tributaries of Meles. The road system was not developed entirely but today's Şehitler street axis had been already shaped. There were also small scaled structures between these vineyards and fields, some of which connected with the streets. Beyru determined the industrial facilities within the site; however, other small scaled structures were not given any function. They were specified as unidentified buildings.[117] These were probably other warehouses, workshops and dwellings. In the original map of Lamec Saad, all built-up areas were shown almost with the same color so the functions cannot to be distinguished since the legend could not be read.

As the dates are so close to each other, Saad and Murray maps did not differ so much but the techniques were unlike to each others. Also, it is seen that more structures were located along the sea in 1878. It was also stated a bath at the northeast of the site, next to İzmir-Casaba railway (Figure 3-40). When it comes to 1885 map of Demetrius in figure 3-41, two other baths were indicated at the north. The map also showed the parcels with structures. Gasworks was regarded as significant within the study area that it was the only one titled.

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[117] Beyru (2011) specified the structures as important bazaars or khans; hotel, restaurants, theaters and gathering areas; industries; public spaces; mosques and Turkish baths; churches; synagogues; schools, hospitals, orphanages and unidentified buildings. He had a different typology for function not including housing. Therefore, it is possible to deduce those unidentified structures could be housing units and/or warehouses.

The area kept on developing mainly starting from around today's Şehitler street at the 20th century. In the census between 1913 and 1915, it was recorded that six flour mills, a cement factory, a soap atelier, two leather factories, two olive oil and cottonseed oil factories were in service in Darağacı (Barboros, 1995). Flour Plant I had been built in the study area in 1895 thus it was one of the six flour mills mentioned in the census. Besides, another tramline of 1500 meters was completed in 1900, which was laid down between Alsancak railway and Halkapınar (Atay, 1978).

As mentioned before, the city faced with many fires through the years. With the development of insurance systems, there were some special arrangements regarding expertise in Ottoman cities which were fragile for the fires (Atay, 1998). Goad company prepared the plans of İzmir in 1905 but these plans did not cover Darağacı district. On the other hand, Pervititch studied in İzmir in 1923 after the great fire of 1922 for La Federale insurance company, involving the study area. The plan covered 38 sheets plus its index in 6 sheets as indicated on it. Also, it is mentioned that there were various traces of Mirzan, Bon, Goad and municipality plans.[118]

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[118] Atay (1998) mentioned that Pervititch plans consisted of 30 sheets but it was specified in plan no 2 as plan in 38 sheets. Some missing parts were probably the reason behind this.

Pervititch used the same technique in plans with Goad company but he preferred to use more colors and he was more careful regarding the green areas. In İzmir plan, he specified lot and block numbers with the functions of the buildings. There was no information about the height as being different from his plans for İstanbul or Goad maps.

Ernest Bon was the first assistant who worked in fire department of the city till 1922. He has prepared one piece map for İzmir, which was used for finding address and detection of fires. His plan had been kept in the municipality since years but it was lost or destroyed in recent years.

Pervititch showed the boundaries of Mirzan plan in his study. There is no information about the original copy of Mirzan plan done before 1922 with the dimensions of 94x164 cm and 1/2500 scaled. (Atay, 1998, p. 137)

Construction techniques were indicated both with the colors and the line types. Two colors were used as to describe masonry and timber structures (Atay, 1998). Houses were stated with leaning numbers in parenthesis while straight numbers without parenthesis referred to public or commercial areas. Pervititch also determined gardens or free lands with lines and some of the functions in written therefore the plan was quite useful to see the usage in Darağacı. Street names were another valuable data, which were generally referred to the structures. Buildings were also specified with their proper names by a majority. Regarding the plan, it can be said that the area included industrial plants, warehouses, housing units, religious buildings, a school and a cemetery in 1923 (Figure 3-43). In detail, there were warehouses and factories of İzmir- Aydın railways situated around the station. Other warehouses were used with the intent of storing petrol, alcohol and bones. In numbers, five petrol, two alcohol and two bone warehouses were counted within the determined functions. Besides, three bank warehouses were indicated as Ottoman Empire Bank, Athens Bank and Orient Bank. When it comes to the industrial plants, steam mills were mostly located at the site, eleven in number including Cousinery. Moreover, Cosinery spinning factory, two tanneries and one paper factory with its warehouse were in use except Gasworks. Warehouses and factories were mainly stood at the seaside, and a few piers were appeared on the shoreline. Housing units, on the other hand, were situated inwards. Greek people were generally living at the site as mentioned before. Two Greek churches located at the east and the west of the area also affirmed this. Greek cemetery, in addition, was still apparent since the end of the 19th century, where St. Michael Church stood on. Further, a school was located at the back of the cemetery.

Industrial plants and most of the warehouses were constructed of stone masonry while housing units were generally constructed of timber structure. Some parts of the industrial complexes were also built by timber structure.

The road system was much more developed since the settlements increased. Today's Şehitler street, which had been shaped before, was named as Darağacı road. Another main axis of the site, present İşçiler street, was newly formed and specified as the new road to "Tepedjik" (Tepecik). There were also other streets called as

Hadji Andoni, Ayia-Markhela, Sadaka, Paleologos, Lizeropoulo, Tchintchini, Balladour and Carmaniola mostly related with the names of factories or warehouses. Another prominent feature indicated in the plan was the tramline. There were connections from the loading/ discharge pier through the site. One of which reached into the Gasworks while another line continued through the Alsancak station and warehouses of railway. There were also junctions from these lines as continuing through Darağacı road (today's Şehitler street). The tramline of 1500 meters, mentioned above, was probably the one lying on this road. Also, the line went on through the shoreline to the port in that period. It seems that these lines were connected. Apart from these, some of the buildings had their own tramlines through the piers providing access from the sea.

The beginning of the 20th century covered the years leading to changes in the city. After the fire in 1922, the Turkish War of Independence and the establishment of Republic, the city continued to develop in every aspects after o period of stagnation. Large scaled industrial buildings were constructed within the site in this century. First industrial complex of the Republican period was known as Şark Industries Complex which started to work in 1924. Indeed, the history of the factory was based on flour mill named "Cousinery Pittaco", which had been constructed in advance and could be seen on the maps of İzmir in 1876; counted among the significant industrial facilities in the 19th century. It is known that the flour plant was transformed to spinning factory by Cousinery in 1893 and to the textile mill in 1895 by Ellie Guiffray and Charles Verbeke. Still, both the steam mill and the spinning factory could be determined in Pervititch map in 1923. Perhaps it was not the transformation but the addition. Finally in 1924, it was extended to Şark Industries Company by Maurice Verbeke, son of Charles Verbeke, and a fountain was built inserted to wall of the factory in 1941 (Şimşek, 2006).

The grand buildings could be also seen in another city map dated 1925, prepared by "Müdafaa-i Milliye Vekaleti"[119] (Figure 3-42). In this plan, settlements and settled blocks were shown in red while fire zones were left empty. The plans were detailed including the whole city thus no definition regarding the functions were given (Atay, 1998). Unlike Pervititch, the rest of the study area, i.e. the south part, could be visible. There was not much change for these areas close to the sea when compared of two maps. However, the extension of Şark Industries can be appeared in 1925. Moreover, a large scaled structure was located next to Meles, towards the southeast of the site, probably with the industrial function. Furthermore, there were settlements lying at the south of Darağacı, at the intersection of Meles river and İzmir-Aydın railway. These should be the first layout of current Ege district.

In 1925, another grand factory was planned to be built on the site and the construction of Electric Plant was started in 1926 next to the Gasworks. The factory put into service in 1928 due to some troubles causing delay. In following years, there were some power expansions in different periods such as in 1949, 1953, 1955 and it was specified as electric power station dating from 1956. Also a power distribution unit was added to the station in 1958. Electric Plant was working actively until 1989 and no longer in production due to the reason of wear out (Şimşek, 2006). Some sources indicated that Electric Plant was established in 1905. However, it seems to be not accurate since the area, where it was located, was available in both maps prepared in 1923 and 1925.

Between the years 1924 and 1934, i.e. under Kazım Dirik, governor of İzmir, Alsancak stadium was constructed which occupied a huge place in the study area (Gürsoy, 1993). Stadium had been in use until 2014; however, it was decided to be closed in 2014 due to risky situation based on some structural tests. It was

[119] Müdafaa-i Milliye Vekaleti prepared the maps originally in 1913 and updated in 1925 with 1/25.000 scale. The maps were pressed in their own print works. Settlement areas and their names were identified as the same technique with military maps which were done in more recently (Atay, 1998).

demolished between July and September of 2015 with the judgment of the Ministry of Youth and Sports. The site has been currently in construction.

In 1936, an oil factory named Gomel (present Bağ) was built at the south of Şark Industry Complex (Gürsoy, 1993). It is mentioned that the factory was active in İzmir since 1928 (http://www.bagyaglari.com); however, why there were various dates are unclear. The oil factory has been still in function with the huge area of thirty decare and it has been planned to be moved to near Çiğli after the construction of a new port since the current location of the factory is very close to the city center (Personal interview, 2015).

In 1938, Tariş Complex was constructed at the Alsancak area consisting of olive oil, cologne and vinegar factories with cooperatives of apricot, fig and grape which were located around Şehitler street and mainly at the west side of İşçiler street. Through the years, the land of Tariş Cooperative covered a large area at the site; however, it has consisted of present's demolished areas except a few buildings.

In the 1939 plan of İzmir, it is seen that the development through Şehitler Street and housing units at the south part of Darağacı were continuing. In the plan report, it was mentioned that Alsancak was developing as the industrial district. In following years, the area continued to expand in terms of industrial facilities, which were affected by the Marshall Plan.[120]

One of the investments funding from Marshall Plan is known as Sümerbank in the field of mining (Tören, 2007). However, Sümerbank Complex in Alsancak was first settled in 1946 as a single textile factory for string and fabric. The main industrial

[120] The Marshall Plan (officially the European Recovery Program, ERP) is a policy of foreign aid for European countries supported by the USA after the World War II, which was published by George Marshall, secretary of state, in 1947. Turkey was one of the countries benefited from this assistance with Economic Cooperation Agreement in 1948. New industrial facilities in different cities were established and improvements within the scope of agriculture, transportation and mining were done with the help of this program. (Tören, 2007)

complex was laid a foundation in 1949, then spinning and textile mill were opened in 1953 and after that, textile print works factory was put into service in 1955. The complex consisted of manufacture, accommodation, recreation and social units over the years. (Arıtan& Sayar, 2009)

After being as an industrial zone, there were another agent giving the area its characteristics even if constituted in more recently than factories, which is Alsancak port. The port was first constructed as concrete pier in 1954 at today's location, then it was assigned to TCDD (Turkish State Railways) in 1957 and it was put into operation in 1959.[121] In following years, the port continued to be enlarged and served as shipping, container yard, general cargo, Ro-Ro and for passengers (Baran& Atay, 2010). With the construction of a new and great port, the site became storage area once again and additional warehouses were built.

Current housing units at the site were built in different periods with different architectural features as mentioned. One of which is Ege District, interpreted as social housing, that was constructed during the period of Osman Kibar, former mayor between the years 1964 and 1973. The area called as Ege district have also other housing units constructed previously; however, main settlement which forms present physical situation was taken shape in the midst of the 20th century. Other settlements except dispersed units, on the other hand, were shaped in the beginning of the 20th century, as referred to Pervititch.

Through the end of the 20th century, land use started to change with the construction of new buildings including management and service. Some large scaled administration buildings and offices were built mainly in 1990s and 2000s.

When it comes to the 21th century, the area was already settled. Some additions and interventions to the existing parcels or buildings took place or new structures were built in this period. However, it cannot be discussed about a significant change for the site affecting the characteristics.

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[121] http://www.alsancaklimani.gov.tr

To sum up, the study area had not evolved together with the city in the early periods. First references about the site were in the 17th century as including mills for irrigation. In the 18th century, the area was used for excursion and sports. Following, called as Punta in the 19th century, the small scaled settlements were located in the site. It is clear that the 19th century was the milestone for the site since massive changes affected its physical development. The constructions of İzmir-Aydın and İzmir-Kasaba railways led how this area would be shaped. The industrial features were arisen with the change in function and needs while residential units were spreading here till these years. Gasworks was one of the most important factories and Pittaco mill was remarkable industrial facility of this century. Towards the end of the 19th century, industrial plants increased and road system in the area started to be well shaped. The site, called as Darağacı in those years, involved industrial plants, warehouses and housing units with their service facilities in the beginning of the 20th century. However, the perception of the site was mainly the industrial district expanding day by day. Moreover, roads and streets continued to be developed. Large industrial plants constructed in this century covered the site. Also, housing units were growing in Alsancak industrial district as part of the industrial facilities. Further, the construction of the port affected the utilization of the site by increasing the storage facility. Electric plant, Şark Industries, Sümerbank Complex, Gomel Oil Factory and Tariş were the distinct examples of the 20th century. In the 21th century, on the other hand, Alsancak industrial district had been already settled and did not change much regarding the building stock with the exception of suffering from recent destructions.

Figure 3-37: Map of İzmir, 1817 (Beyru, 2011, p.43)[122]

[122] Produced by Beyru over the original map in the "Institute of Cartography, Berlin".

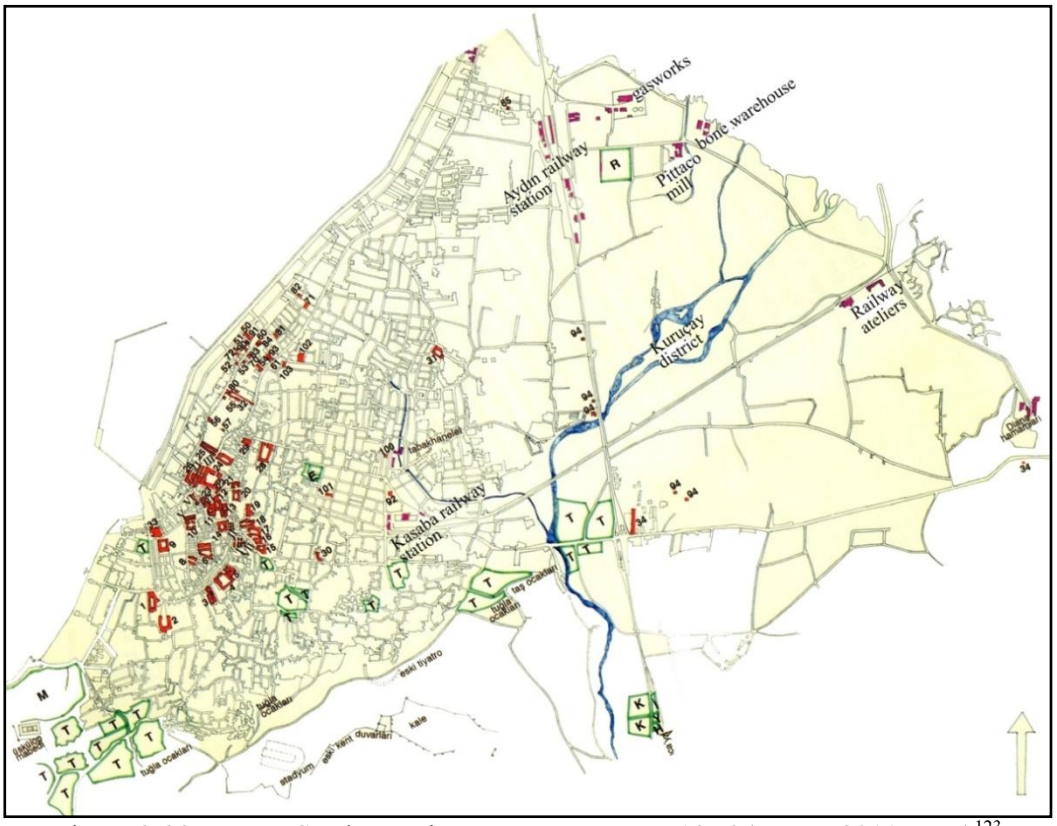


Figure 3-38: Lamec Saad Map, important structures, 1876 (Beyru, 2011, p.75)[123]

[123] Colored by Beyru over the original map in "Paris National Library", and translated by the author.

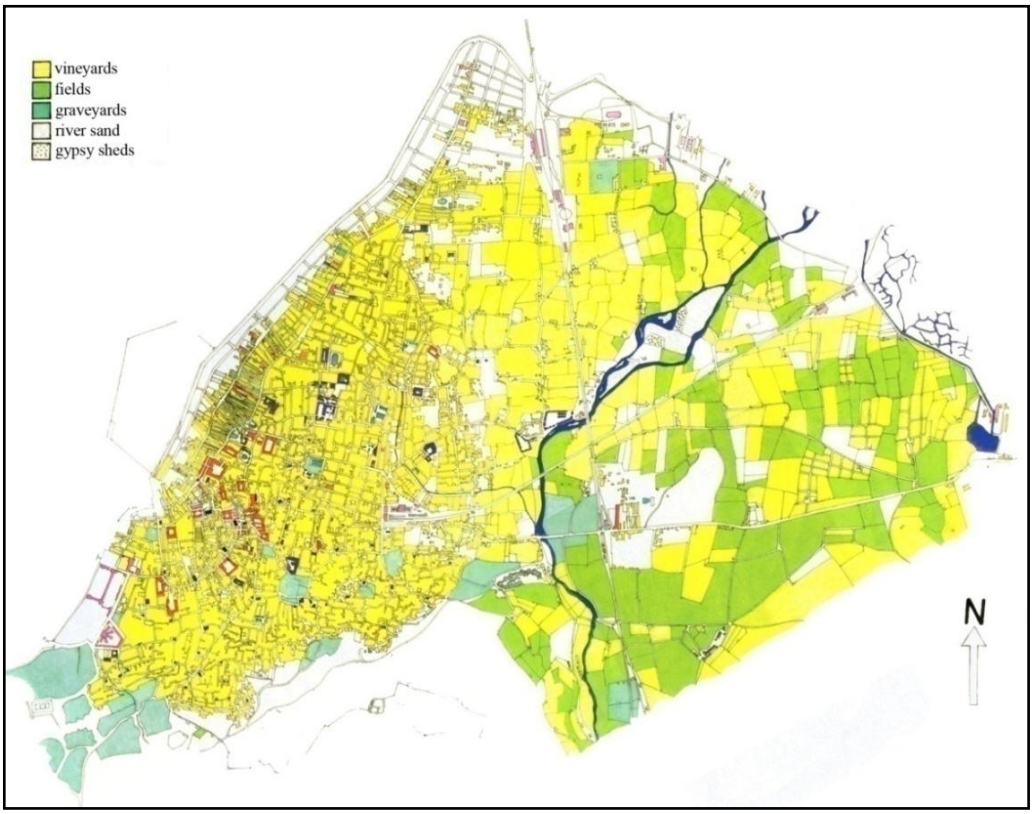


Figure 3-39: Lamec Saad Map, land use, 1876 (Beyru, 2011, p.70)

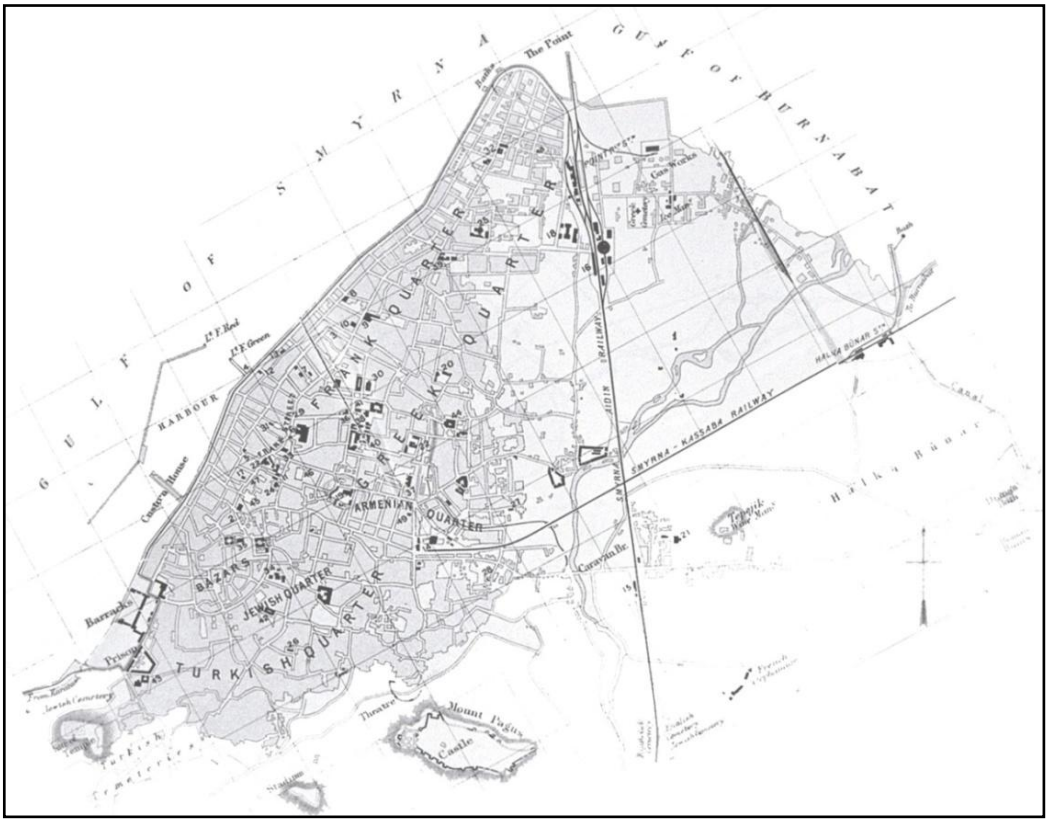


Figure 3-40: John Murray Map, 1878 (Beyru, 2011, p.81)

Figure 3-41: Demetrius Map,1885 (Beyru, 2011, p.84)

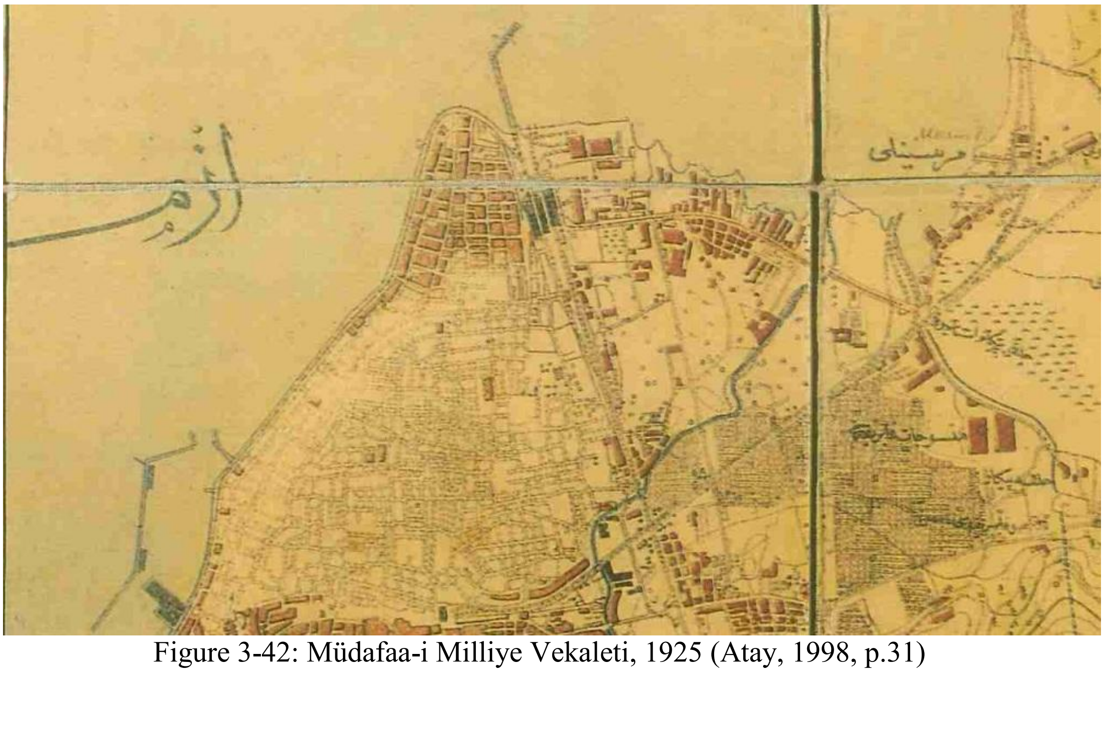


Figure 3-42: Müdafaa-i Milliye Vekaleti, 1925 (Atay, 1998, p.31)

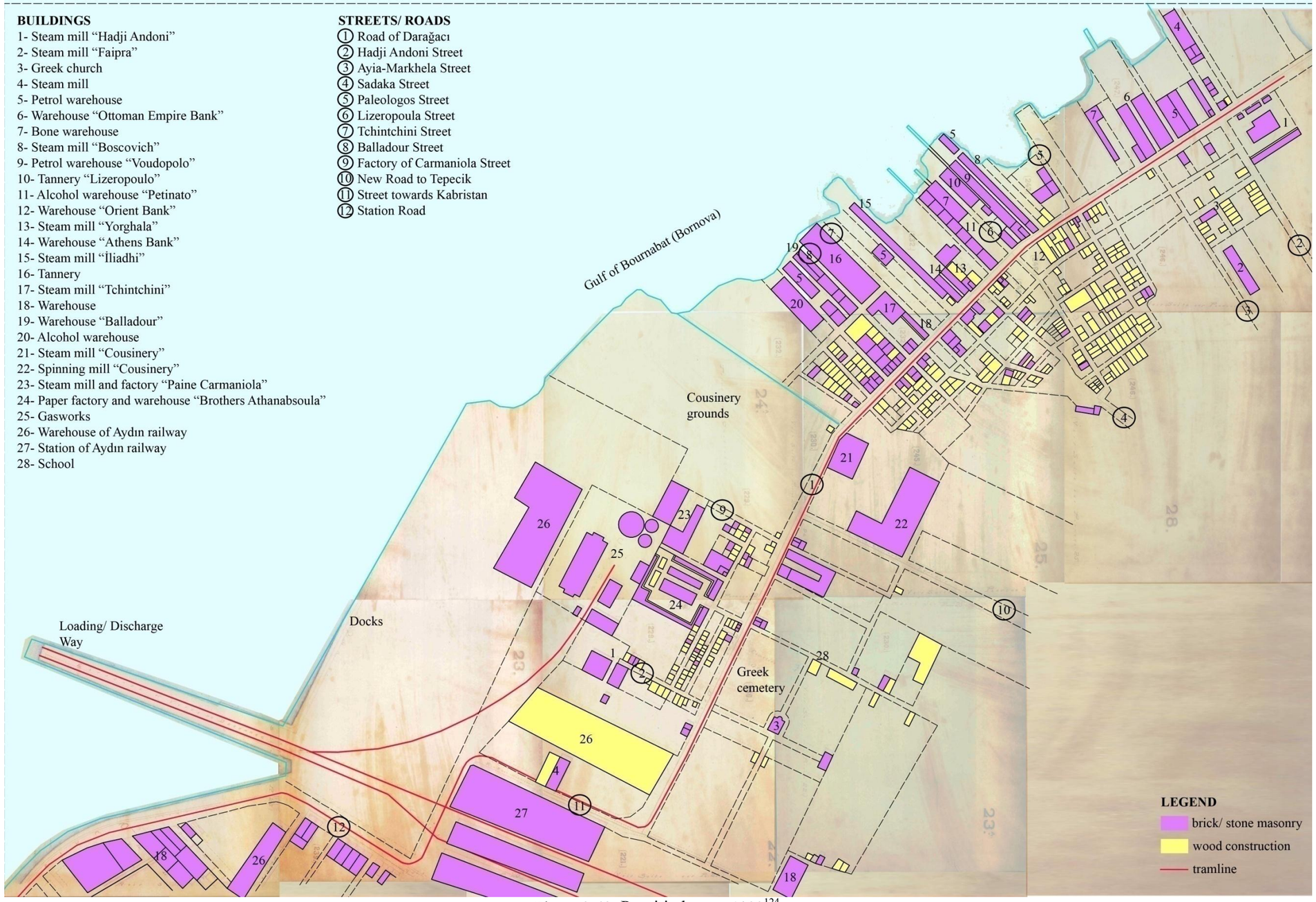


Figure 3-43: Pervititch map, 1923[124]

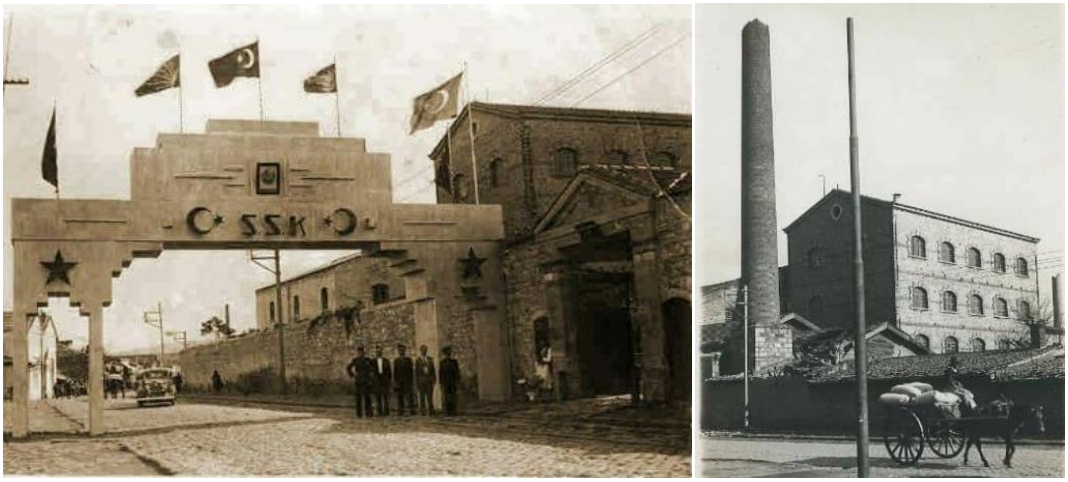
[124] Produced by the author over the original map by using the same colors. All readable information was added to the drawing.

Table 3-1: Physical Development of the Study Area

OTTOMAN PERIOD	**At the end of the 18th century**	Sports and excursion facilities
	In the first half of the 19th century	Small scaled settlements
	1856	İzmir- Aydın railway and the station
	1856-1862	Gasworks Complex
	1863	İzmir- Kasaba railway and the station
	1895	Flour Plant I
	At the end of the 19th century	Gasworks, Pittaco mill, warehouses, houses, Greek cemetery
	Until 1915	Gasworks, 6 Flour mills, 1 Cement factory, 1 Soap atelier, 2 Leather factories, 2 Olive Oil factories, Cottonseed oil factory
REPUBLICAN PERIOD	**Until 1923**	Gasworks, 11 Steam mills, Warehouses (5 Petrol, 2 Bone, 2 Alcohol, 3 Bank), 2 Tanneries, Spinning mill, Paper factory, 2 Greek churches, houses, school, Greek cemetery
	1924	Şark Industries Complex, extension of "Couzinery Pittaco"
	1925-1928	Electric Plant
	1924-1934	Alsancak Stadium
	1936	Gomel Oil Factory (Bağ Oil)
	1938	Tariş Complex
	1946-1955	Sümerbank Complex
	1954	Flour Plant II
	1954-1959	Alsancak Port
	In the midst of the 20th century	Social housing in Ege District, Tile Factory
	At the end of the 20th century	New buildings of management, commerce facilities

(a) (b)

Figure 3-44: (a) Darağacı road[125] (b) Darağacı road, looking to Flour plant[126]



(a) (b)

Figure 3-45: (a) Şark Industries and triumphal arch in Darağaı (Şehitler) street[127] (b) Şark Industries[128]

[125] http://www.levantineheritage.com/daragac.htm

[126] http://www.kentyasam.com/hakkinda-cok-sey-soylenip-az-bilinen-gizemli-semt-daragaci-yhbrdty-3585.html

[127] https://www.pinterest.com/pin/516647388489082354/

[128] https://pt-br.facebook.com/izmiroldphotos/photos/dara%C4%9Fac%C4%B1-caddesi-%C5%9Fark-sanayi-fabrikas%C4%B1/1466942030056667/

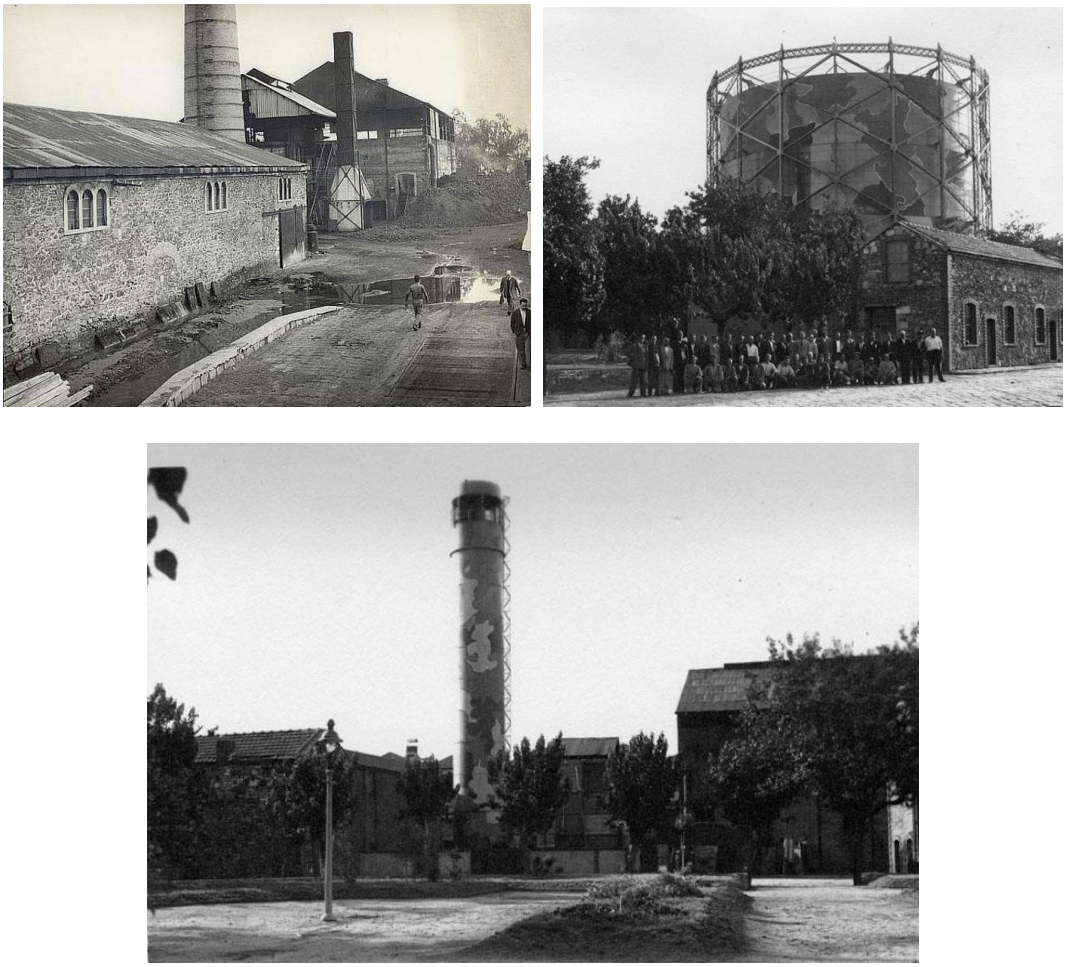


Figure 3-46: Images from the Gasworks complex with camouflage paints on gasometer[129]

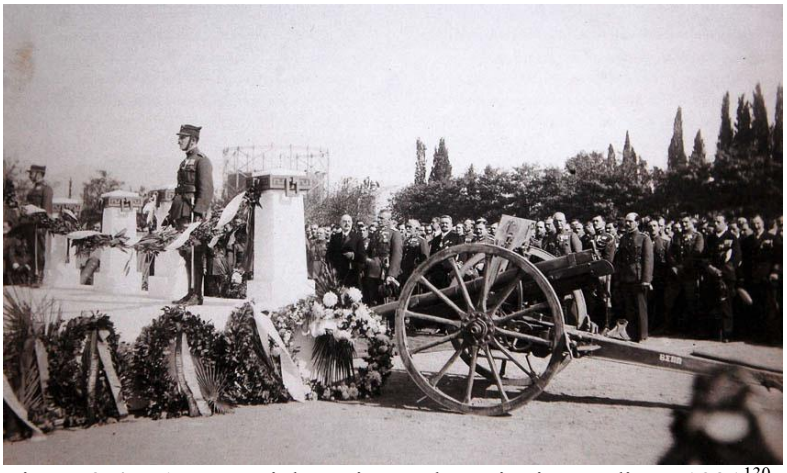
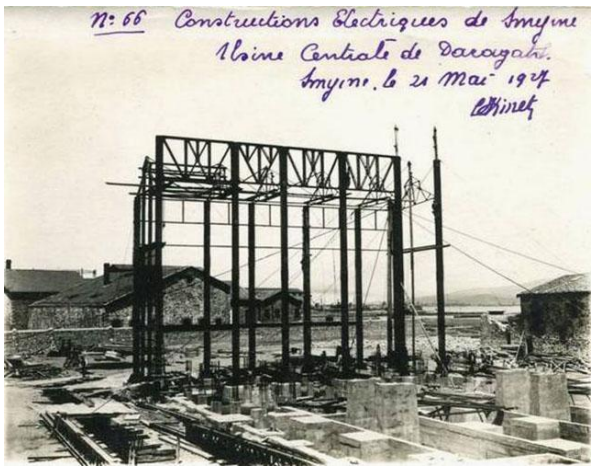


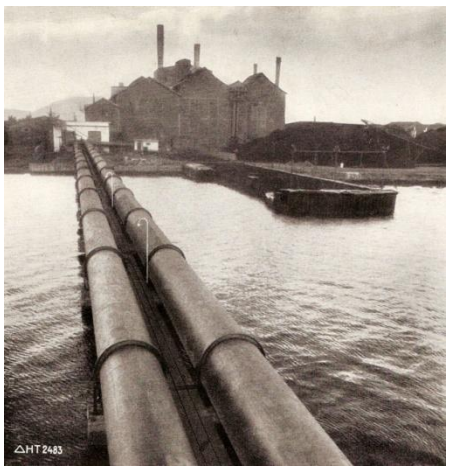
Figure 3-47: A memorial service at the Paionios stadium, 1921[130]

[129] http://www.levantineheritage.com/gasworks.htm

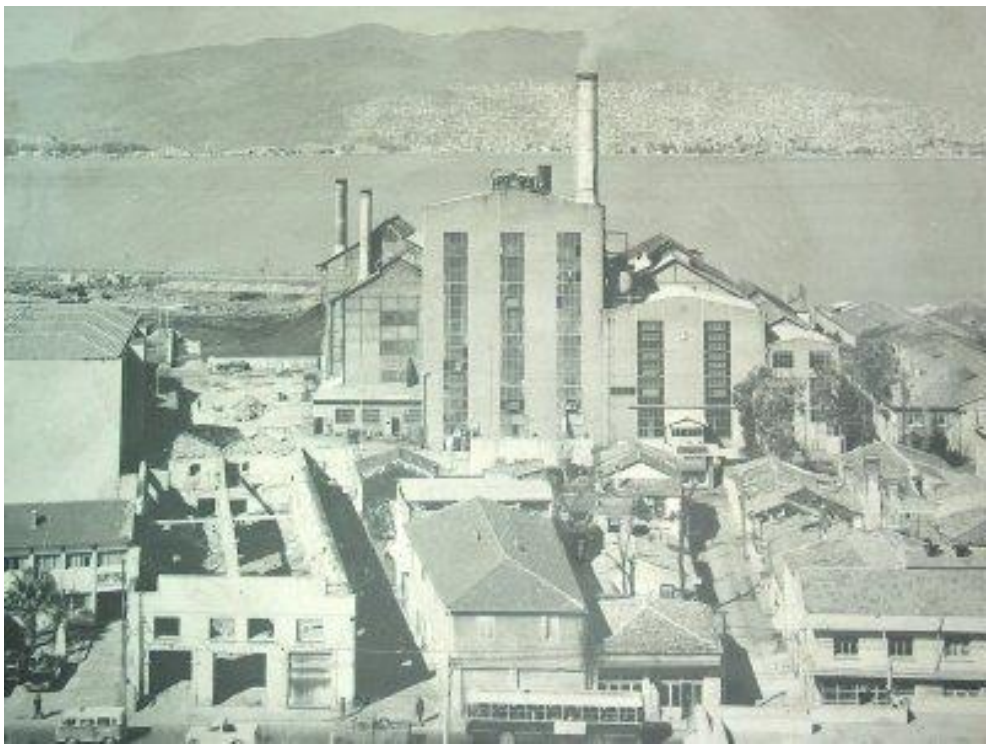
[130] http://www.levantineheritage.com/smyrna.htm



(a)



(b)



(c)

Figure 3-48: (a) (b) Construction of Electric Plant[131] (c) An old photo of Electric Plant[132]

[131] http://www.kentyasam.com/tarihi-elektrik-fabrikasi-kentin-gundeminde-yhbrdty-4133.html

[132] http://www.emo.org.tr/genel/bizden_detay.php?kod=122264

3.2.2. Planning History of the Area

In this part, the history of planning approaches regarding the study area will be examined with the interpretation and evaluation of previous planning studies, which were applied or not. Since the area has been quite attractive, there have been lots of planning studies concerning the industrial district. The methodology of this part was gathering information from master plans, planning reports, interviews with related people, articles, previous studies, and individual interpretation of planning studies. Only relevant parts for the study area were examined and expressed in previous plans within the scope of this thesis. Dealing with previous approaches on planning is important in order to make correct decisions and proposals for future activities.

First planning attitude in İzmir concerning Alsancak industrial district was **Danger-Prost Plan** (Figure 3-49) prepared between the years 1924 and 1925 by Rene Danger and Raymond Danger with the consultant of Henri Prost (Bilsel, 2009). The plan was done after the great fire of İzmir in 1922, organizing the city as a whole by conserving the historic pattern remained from fire. What was foreseen for the study area was that the construction of a big port to the north of Alsancak and the establishment of industrial site for Darağacı. The plan separated industrial district from the city with green lines. Besides, the current railway lines were seen as problematic since they divided the city into four pieces. So both the stations of Aydın and Basmane and also the İzmir-Aydın railway line were removed. A new line was proposed on the shoreline to connect Darağacı to İzmir- Kasaba line, with the addition of a new station for it in Halkapınar (Atay, 1998). The mentioned port for those years was constructed at the proposed area. Additionally, the area was developed as industrial zone as predicted yet without the green line. By those years, there had already been factories, mills, warehouses and residential units at the site; however, industrial facilities increased after on. One of the most dramatic changes in Danger- Prost plan was to remove İzmir- Aydın railway but both railways have been still in use today. So it could be said that Danger- Prost Plan was partially implied after years for the study area not about land subdivision but concerning design ideas.

Danger-Prost Plan was relatively adopted for the city; however, İzmir municipality took Herman Jansen's opinion, a German city planner, for existing city plan in 1932 since there had been other oppositions for the plan. Jansen was not favorable about the previous plan and he prepared a new report for the city. Yet, the plan was not practiced since it was not thought aesthetic (Atay, 1998). İzmir municipality prepared the **Master Plan of İzmir** in 1939 comprising Darağacı to Göztepe, taking no notice of the proposals of Danger-Prost plan concerning the port and industrial district (Figure 3-50). Master plan proposed Halkapınar as an industrial zone instead of Darağacı (Bilsel, 2009).

The municipality interviewed with different city planners such as Jansen, Prost and Le Corbusier to have them make the plan before preparing the Master Plan of İzmir in 1939. However, they could not negotiate with Jansen or Prost. On the other hand, Le Corbusier could not come to the city at the appointed time due to the II. World War (Serçe, Yılmaz, Yetkin, 2003). So he submitted the plan and the report in 1949. **Master Plan of Le Corbusier** was designed as a planning schema with all of the possible transportation network, business centre, housing and social facilities for the workers with the main idea of "green city"; however, he proposed the transformation of whole historic pattern in the city with the thought of "modern city" (Figure 3-51). Concerning the study area, the plan offered a new port in the place of present Alsancak port and the settlement of the green industrial estate in the northeast of the port, between Alsancak and Bayraklı. A new railway line through the shore was foreseen to provide the relation of the industrial site, the port and the main railway stations Le Corbusier plan was not implemented due to the understanding of "tabula rasa" although some proposals were taken place in master plans afterwards (Bilsel, 1999).

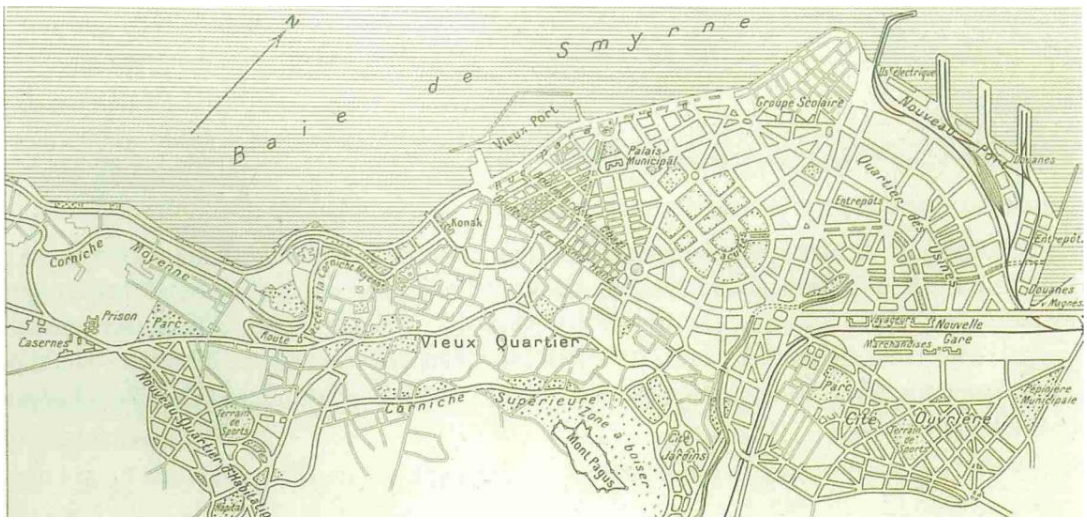


Figure 3-49: Danger Prost Plan (Atay, 1998)

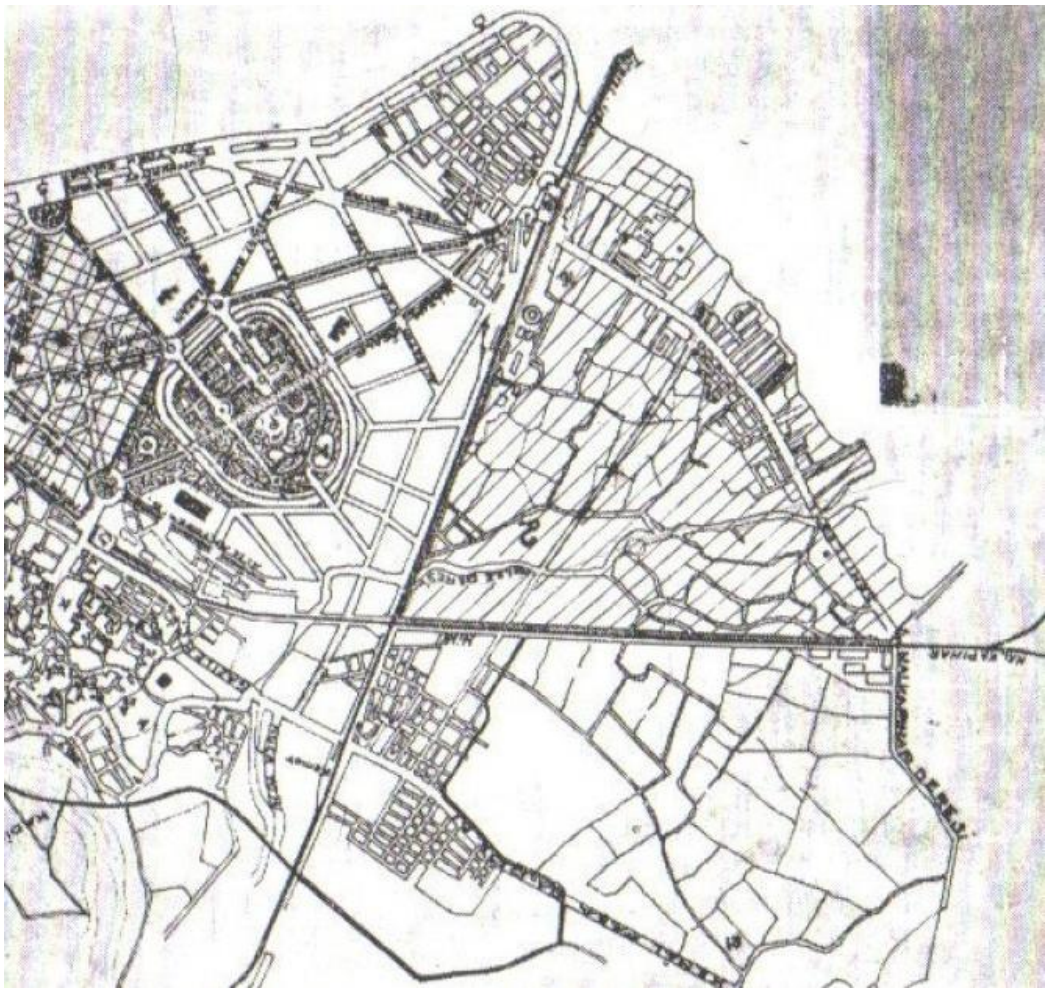


Figure 3-50: Master Plan of İzmir, 1939 (Şimşek, 2006)

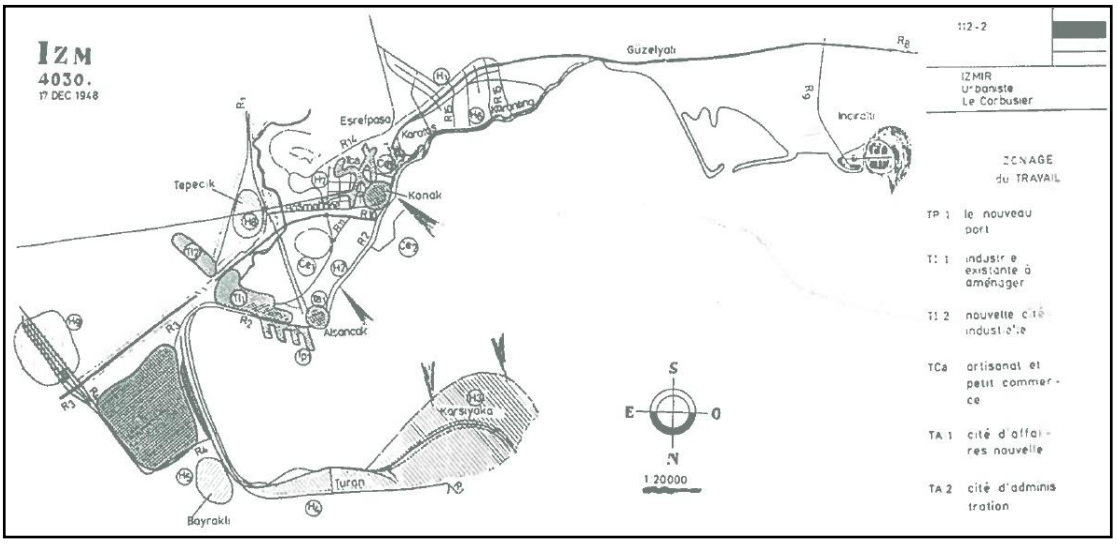


Figure 3-51: Le Corbusier's Master Plan Schema (Serçe, Yılmaz, Yetkin, 2003)

After many planning proposals and lastly disapproval of Le Corbusier's Master Plan, the municipality decided to open a competition as **International City Planning Competition** in 1951. "In the program of competition, it is admitted that the population will be increased from 230.000 to 400.000 within 50 years. The contestants are required to take consider of the designation of Alsancak district as mercantile port by the Ministry of Public Works and to show the relations between industrial district, port and the station of goods train." (Bilsel, 2009). Projects in competition were evaluated by a jury under the chairmanship of Sir Patrick Abercrombie who was the head of International Union of Architects. The first comes in the competition was the project of Kemal Ahmet Aru, Gündüz Özdeş and Emin Canpolat, while the second team was Alexander Freiker von Branca and Reinhold Wierl from Munich and the project of Rauf Beyru was the third winner. There were also other projects from Wien, Switzerland, Germany and Istanbul who got honorable mentions. Commonly, Konak district and neighborhoods were accepted as the center of İzmir in all of the projects which were awarded. (Serçe, Yılmaz, Yetkin, 2003).

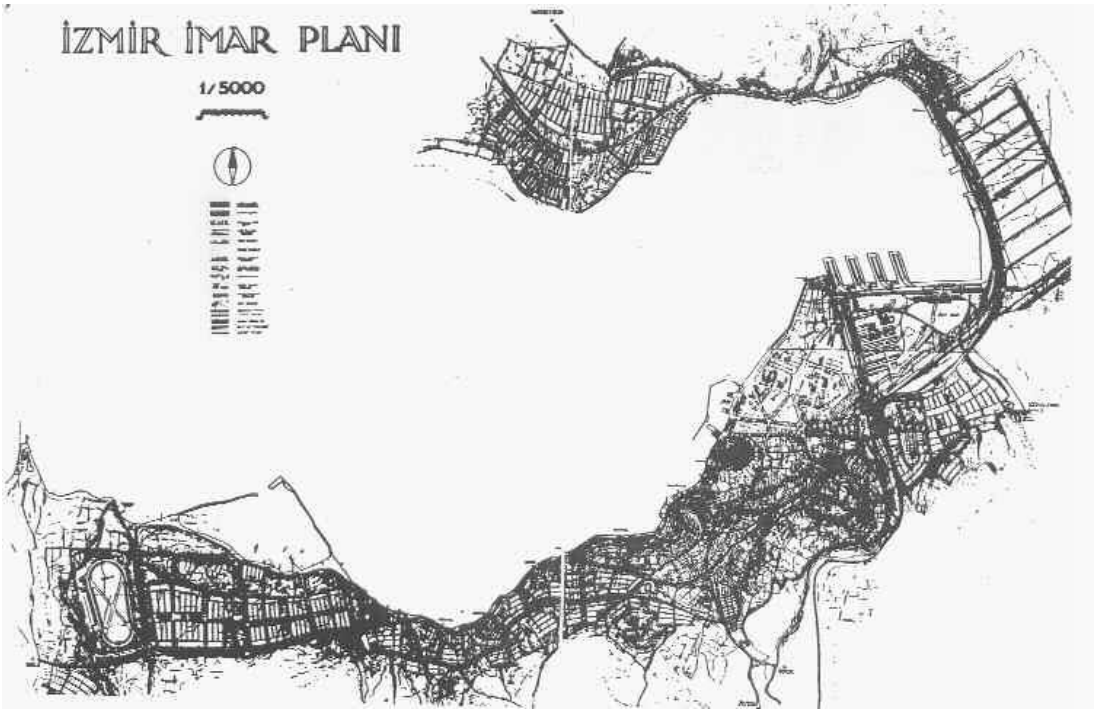


Figure 3-52: Master Plan of İzmir by Kemal Ahmet Aru, Emin Canpolat and Gündüz Özdeş, 1953 (Bilsel, 2009)

Following the competition, **the master plan** (Figure 3-52) designed by the team of Kemal Ahmet Aru, Emin Canpolat and Gündüz Özdeş was approved and come into effect in 1953 (1955 according to Serçe, Yılmaz, Yetkin). In this plan, the main principle was zoning as dividing the city into functional parts. Accordingly, Alsancak was designed as a port, assigned by the conditions, storage areas interrelated with the railway lines and the industrial district was proposed to be settled in the Bornova gulf. (Bilsel, 2009) However, the plan became unviable and insufficient because of the unexpected population growth although many revisions were done until 1960.

The city planning studies in Turkey gained a new way after the Building Law came into operation and the Ministry of Development and Housing was constituted in 1957. With this progress, specialist city planners assigned by the ministry started to work on the planning of Izmir. Accordingly, **Izmir Metropolitan Master Plan Bureau** was founded within the body of the Ministry of Development and Housing in 1965 (Bilsel, 2009).

The first plan prepared by Metropolitan Planning Bureau was approved by the Ministry of Development and Housing in 1973 as **1/25000 Izmir Metropolitan Area Master Plan.**[133] This plan included basic decisions concerning the study area and near surrounding, which were the extension of Alsancak port with one of the alternative routes for sea transportation in the city, the construction of the main railway facilities in Halkapınar, the proposal of industrial port with the 'Free Port' status in the district of Çiğli. The proposal of the industrial port could not become true because of the shallow sea of Çiğli so the area was selected for purification facility instead of the port.[134]

Following this master plan, **Izmir Metropolitan Area Master Plan Revision**[135] was prepared in 1989 with the basis of the current plans of various scales. The master plan proposed a central business district in Alsancak.[136] Additionally, there were four environmental plans approved in different years involving Tahtalı Dam, Seferihiar-Dilek peninsula, Çeşme-Karaburun and Foça Coastal Region. However, these were not examined since they were not related to the scope of this study.

One of the important steps concerning the planning of Liman Arkası district was **International competition of urban design ideas for İzmir harbor district** which was organized by the Metropolitan Municipality in 2001 involving the sites from Alsancak to Turan. With this competition, it was aimed to develop urban design ideas for ongoing master plan studies, to create a new city center around the port

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[133] This master plan was cancelled in 07.05.2003 by the Ministry of Public Works and Settlement on account of the fact that plan lost its validity due to the plans and applications up to that time. (http://www.izmimod.org.tr/iknip/04_planlamatarihi.pdf)

[134] http://www.izmimod.org.tr/iknip/04_planlamatarihi.pdf

[135] This plan was invalidated in 2002 with the reason that metropolitan municipalities did not have the authority on 1/25000 plans. (http://www.izmimod.org.tr/iknip/04_planlamatarihi.pdf)

[136] http://www.izmimod.org.tr/iknip/04_planlamatarihi.pdf

which was a half-derelict area, and to constitute a modern image for the city (*Yarışma*, 2002).

Within the scope of this competition, the master plan of greater city of İzmir, approved development plan, the sheets of land use, registered lots and buildings, unregistered buildings to be conserved, transportation network, ownership status, coastal line, map of infrastructure, sea and land levels, photos of the site were provided by the municipality**.** It is seen that many physical and technical details were given to the participants but social aspects of the site were ignored. Moreover, it was indicated in specifications of competition that the port will serve for passenger ships and shipping port will be removed so the transformation will be handled by taking into consideration of this scenario.

Considering the properties of the site, Alsancak is the major district where registered buildings are placed so it is significant that it should be the most regarded part within the whole site in the context of conservation.

136 projects from 30 countries have taken part in the competition and the winner was Jochen Brandi, a German architect (Bal, Altınörs, Doğmuş, 2005). The first three project will be mentioned.[137] At the project of Brandi, Bayraklı and Salhane districts were defined as city centre and Bayraklı archeological site was emphasized as the initial point of urban development. Turan district was planned as residential area while Alsancak district was organized as docklands with public and residential buildings including green areas. There were also an Olympic park at Halkapınar. Moreover, the architect created new public spaces with replenished areas. The project was remarkable with extensive green areas, hanging gardens and parks. The density of buildings was provided with high storey structures. (*Yarışma*, 2002, pp. 62-65).

Second prize winning was the project of Bünyamin Derman and Dilek Topuz Derman from Turkey. The project was consisted of mixed use functions integrated

[137] The projects of the first three winner could be seen on Appendix A.

with landscape. They created urban activity centers with green parks, archeological parks and techno parks as open areas, and zoned the planning area with theme parks. Alsancak was planned as industrial archeological park and the port was designed as marine park with entertainment and tourism facilities. On the other side, it was planned Olympic sports park in Halkapınar, nature park in Turan and archeological park in Bayraklı. (*Yarışma*, 2002, pp.66-69).

Third prize winning was also from Turkey participated by Ertur Yener, Erdoğan Elmas and Zafer Gülçur. In this project, uninterrupted green promenade around the gulf, designed green areas and priority of pedestrians have been characteristics of the design. Settlements have been located in Alsancak and Salhane districts. Port and Alsancak have been planned as the focus of promenade and landscape. Industrial heritage buildings have been preserved and reused as industrial museums, cultural and social centers. (*Yarışma*, 2002, pp.70-72).

As generating some ideas were anticipated with the competition, it was not logical to expect that the participants should have solved all of the problems of the site since the area was quite extensive. Some of the projects could be evaluated as proposals of master plan but the great majority was urban design ideas as jury member Jordi Farrando said (*Yarışma*, 2002, p.60). The competition area was selected with the purpose of design along İzmir gulf which was required to be planned. However, the area was consisted of districts with different architectural characteristics and Alsancak industrial district was totally distinctive properties within the area. So it is important in the planning process that the approaches related to Alsancak district should be more concerned with the social stratum along with the historical and cultural values in detail.

After the urban design ideas competition, planning process started. In the planning process, a participatory approach was handled and there were lots of meetings with the Metropolitan Municipality, planning team and non-governmental organizations such as the Chamber of Architects, the Chamber of Commerce, the Chamber of City Planners, related local municipalities, the City and Regional Planning

Department of Dokuz Eylül University and the property owners (Acar, 2011).[138] After these meetings, **1/5000 Master Plan for the New City Center** was approved in 2003, prepared by taking into account some urban design ideas from the competition. Basic principles of this plan were to integrate two sides around the gulf, to give acceleration of urban development, to change the city image, to enhance quality of urban life (*Master Plan-Planning Report*, 2003).

Figure 3-53: Boundaries of the planning area including Alsancak, Halkapınar, Salhane, Bayraklı, Turan Coastal Area (İzmir Metropolitan Municipality, 2001)

[138] The details of preparation stage of master plan, pre-meetings and preliminary studies could be found out in the thesis of Acar. The general ideas regarding the study area were mentioned as that Alsancak industrial district was accepted to be developed with commercial and tourism facilities while historic industrial buildings were conserved (Acar, 2011, p. 80). There were various opinions about the future of the port in the meetings since the foreseen idea for the competition was the removal of the shipping port. Indeed, the metropolitan municipality do not have the right to make a decision on port since the central government has been the only authority (Acar, 2011, p. 75). However, the opinion of the Chamber of Commerce was to prepare a "suggestive plan" to design the port and waterfront for further ideas and this proposal was accepted by other participants (Acar, 2011, p. 77).

Planning area involved the land starting from Alsancak port and the industrial site to Turan district along the shore. 1/5000 Master Plan for the new city center was quite comprehensive containing a large area; however, the plan decisions for Alsancak district will be examined in detail within the scope of this study.

Zoning principle was considered in the master plan and regions were specified as tourism, business, tourism and commercial functions. In this regard, while Turan district was proposed mainly for the touristic and commercial activities focusing on tourism, Salhane part was intended to be organized as "central business district".

Alsancak district was mainly planned as the tourism settlement area and designated as tourism-commerce, tourism-residential, tourism-commerce-culture. Additionally, while special project areas and special planning areas took an important place, open areas, urban social and technical infrastructure, urban work area took part in the master plan.

In this respect, the lands of Gasworks, Sümerbank Complex, Electric Plant, Şark Industries Complex and the lot of Turkish Republic Railways were indicated as special project areas. In plan notes, special project areas were defined as the areas where the architectural projects concerning the historical and cultural values of registered lots, buildings or intermediate surroundings would be implemented with the approval of the conservation board.

Among these, Gasworks and Electric Plant would be used by restoration of the existing buildings without the construction of new structures, and set for the cultural facilities.

Sümerbank Complex was proposed for the use of "Industry Archeology Museum" and "Convention Center" with the floor area ratio of 1 for the new structures. Along with the cultural use, primary education, vocational and technical training were indicated for Sümerbank Complex in the master plan.

The lots of Şark Industries Complex and Turkish Republic Railways were intended to be planned as usage of tourism, commerce and culture with the floor area ratio of

3. In the plan report, it was stated for these areas that at least five percent of the whole construction site would be organized for cultural facilities as theatre, cinema, concert hall, exhibition hall and so on.

For special project areas, plan report also remarked that the property owners could have the project prepared by the architects and engineers they chose or by the competition, and the Metropolitan Municipality would be supportive of gathering information for the competition.

The south of Electric Plant and Gasworks as registered lots were determined as one of the special planning areas with the use of tourism and commercial facilities, and with the floor area ratio of 3.

Another special planning area was Ege district intended as residential area with touristic and commercial activities. The floor area ratio in this site was determined as 2.5 and the smallest lot size as 1200 m^2. In plan notes, this area was described as the place where social fabric maintains the cultural activities in its own location.

Construction conditions for special planning areas were decided to be detailed on following subscale development plans with the analyses of ownership pattern and social structure.

Among the decisions about access, İşçiler street was planned as pedestrian privileged road to change in a dynamic way. To support this idea, small scaled commercial enterprises with upper floors as optionally residential were intended to be along the street with the floor ratio of 1. Moreover, 1525 street was planned to be extended to organize the traffic.

The rest of the planning area concerning the Alsancak district included residential area located between Şark Industries and Sümerbank Complex with the floor area ratio of 2.5 for new structures. Besides, Alsancak Stadium and Dokuz Eylül University were conserved as they stood. The other parts were proposed to keep cultural facilities with the floor ratio of 3.5.

When examining the decisions on Alsancak port, the plan report pointed out that the port was accepted to serve only for passenger transportation in the long term and Alsancak district was planned by taking into consideration the transformation of the port. However, it was also inevitable that the existing port would be utilized as container transportation until the new one would be constructed and come into use.

Figure 3-54: Master Plan for the New City Center
(Bal, E., Altınörs, A., Doğmuş, O.E., 2005, p. 35)

After the approval of the master plan, the implementation process started; however, the practice was not quick. The reasons behind this could be mentioned as the lack of capital, incompatibilities in the planning process, long-termed privatization of the port. The criticisms on master plan increased as the plan was not applicable and building rights should be increased. Following, the master plan was revised in 2005

mainly on the rise of building rights. Then series of objections and court decisions continued and plan became invalid in 2006. The building rights were changed by Metropolitan Municipality in 2007 according to the court decision and the plan was approved again. This time, the plan was faced with another lawsuit by the reason of lacking geological surveys in 2009 and it had to be approved once again in 2010 with the addition of preferred geological surveys (Acar, 2011).

So the progress about the planning area was based on lawsuits and revisions during the years between 2003 and 2010. Finally in 2010, Konak and Bayraklı municipalities prepared the implementation plans with the scale of 1/1000 after the approval of the final master plan. **1/1000 Implementation Plan for Alsancak Port and Salhane Districts** was approved by the Metropolitan Municipality Council in 2011.

In plan notes, regarding Alsancak district, there were special project, special planning and special implementation areas, addition to business, tourism, commercial and cultural facilities. Moreover, registered lot boundaries and conservation areas with immovable cultural and natural heritage were indicated. Also, open areas which were specified as parks and recreational areas covered large public spaces.

Special project areas were identified for the registered lots as cultural heritage which would be designed as a whole with the approval of İzmir Cultural and Natural Heritage Conservation Board. In this respect, a part of Sümerbank Complex, Gasworks and Electric Plant were specified as special project areas with cultural facilities. Immovable natural assets were also shown in the plan to be preserved. Sümerbank complex was dedicated to primary and vocational education with the floor area ratio of 1.50 and maximum height of 12,80 meters for new structures. However, the rest of Sümerbak complex which stands on the west of 1525 street was planned as tourism, commercial and cultural area.

Another large parcel of industrial heritage was Şark Industries Complex which was planned as tourism, commercial and cultural area with the floor ratio of 3.5.

Apart from special project areas and parks, the rest of the site standing between Liman and Şehitler streets was designed as tourism and commercial areas, so have the existing residential units as well. Another residential units placed on the west of Sümerbank complex were specified as tourism and housing area. A square was placed between the residential units, surrounded by parks and Piyer Verbek fountain.

On the other hand, Ege district was identified as special planning area.[139] The rest of Alsancak district consisted of parks, car parking, official buildings, educational units and mostly tourism, commercial and cultural facilities with the floor area ratio of 3.5, additionally Alsancak stadium and university as large parcels.

There were some objections and revision in 1/1000 Implementation Plans as in the 1/5000 Master Plan. The first one was İzmir Cruise Port Revision of Master Plan, which was approved at 04.01.2012, including 1/5000 and 1/1000 plans.[140] In plan notes, port area was designated with the floor area ratio of 1,35 and maximum height of 30,80 meters. Port service area, on the other hand, was planned with the floor area ratio of 2,50 and maximum height with 30,50 meters; and public enterprises with floor area ratio of 2,20 and 30,50 meters height. Cruise port was divided into four parts as pier, historical site, commercial and tourism area, and public enterprises with service area and car parking. Existing green areas were preserved with smaller on resize.[141]

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[139] İzmir Metropolitan Municipality Council agreed to stop the implementations within Ege district and to specify the site as Urban Transformation and Development Area at 16.09.2011 with the decree no. 05.790. Following, Ege district was declared as Urban Transformation and Development Site by the Council of Ministers in 22.02.2013 with the decree no. 2013/4366. (1/1000 Implementation Plan for Alsancak Port and Salhane Districts, Plan Note)

[140] https://www.izmir.bel.tr/NazimImarPlani/663/tr

[141] http://www.izmimod.org.tr/v2/uploads/kuruvarziyer.pdf

With the objections of Union of Chambers of Turkish Engineers and Architects İzmir Branch, Privatization Administration only changed the floor area ratio of 1,35 to 1,25 for port area and put the plans into action at 30.04.2012. However, the objections of the plan, consisting of 98.935 m^2 commercial area with shopping center and offices, was still valid, which were specified as;

- This kind of use has been contradictious with the commercial facilities of cruise ports described at Coastal Law,
- Traffic jam in this neighborhood has been already a problem and it will increase with this plan,
- To construct a huge shopping center at the port will be a negative effect for city trade since it will not orient tourists through historical city center Kemeraltı and Alsancak.

Council of State got the decision of stay of execution and cancelled the third part of the plan including commercial facilities and offices, after the expert appraisal at 11.09.2015 with the judgment of that the plan was against Coastal Law, city planning principles and public interest. After the cancellation of the plan, Privatization Administration prepared a new plan at 3.11.2015 with the use of cruise port, public enterprises, port service area, green areas and car parking. It was also seen that floor area ratios has been decreased in the new plan as 0,50 and with maximum height of 30,50 meters. So total floor areas were decreased as nearly 59.300 m^2 than 148.300 m^2, which means the use of shopping center and offices with 88.980 m^2 was removed.

Another revision was about plan notes of 1/5000 scaled master plan approved at 09.10.2014.[142] One of the changes was about the definitions in the special project areas, which was changed with the law no. 2863 that Cultural and Natural Heritage Conservation Board to Cultural Heritage Conservation Board. The other revision included the rules of construction. In the previous plan, the lot size except special planning areas was specified according to İzmir Metropolitan Municipality Building

[142] https://www.izmir.bel.tr/NazimImarPlani/663/tr

Bylaws if the smallest lot size of 5000 m^2 could not been generated. This was specified as minimum 3000 m^2 in the same conditions with the revision.

Besides, there were some objections by İzmir Chamber of Architects and Chamber of City Planners about the use of tourism, commerce, culture and tourism, commerce as that the definitions of functions lead to the same result.[143] So plan note of "tourism, commerce, culture" was cancelled by Administrative Court at 30.09.2015 with the decree no. 2015/ 1186 (Revision of Plan Note, 07.01.2016). Also, the definition of "tourism, commerce" was reviewed in the plan note approved at 07.01.2016. The description was extended as single spaces used by different people or institutions with the function of offices could be minimum 200 m^2, the function of tourism could not be less than fifteen percentage of floor area ratio.[144]

At 12.04.2016, there was another revision in the plan note of 1/5000 scaled master plan related to the central business districts. "Tourism facilities" were removed within the different functions identified for central business districts or metropolitan activity center.

Besides, another revision was approved at 01.12.2015 concerning Ege district, which had been specified as Urban Transformation and Development Area in 2011. The boundaries of special planning area were enlarged as including the east part of the district, which have been identified as "municipal services area" in advance.[145]

At this point, it is relevant to mention another planning study about the site, which is **Ege District Urban Transformation and Development Project** covering 70.000 m^2. The project was developed by bidding under the control of İzmir Metropolitan Municipality Department of Urban Transformation with a

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[143] Personal interview with Nejla Baysan "City planner- İzmir Metropolitan Municipality", 04.12.2015.

[144] https://www.izmir.bel.tr/NazimImarPlani/663/tr

[145] https://www.izmir.bel.tr/NazimImarPlani/663/tr

participatory planning process in company with advisory board. The winner firm prepared five projects for the site and two of them were selected with the advisory board. Following, the process started along with the meetings via neighborhood representative, Gypsy association and property owners. The final plan was constituted with these meetings, surveys and requests from residents.[146]

The project consisted of residential units, commercial center, a mosque, green areas, car parking, recreational areas, a square with small scaled commercial units and historical church (Figure 3-55). The district planned as an empty land only preserving the historical church. Residential units were designed according to existing street lines with specialized green areas in the middle of blocks.[147] Six storey buildings included different types of housing units between 31 m^2 and 114 m^2, with commercial units on ground floors with between 15 m^2 and 74 m^2. The square with market place was designed with the main purpose of physical connection of the district to city center. There was also cultural centre serving as academy of music, compatible with the life style of Ege district.[148]

In figure 3-55 b, 3D view of the planning area could be seen. Residential units had the same heights while cultural centre and studio apartments were designed lower. Principal office and service buildings had remarkable elevation within the buildings. Commercial center, on the other hand, was planned as a tower. Offices in the district were designed for mainly financing and large property owners (Interview with Oya Erdin, 03.12.2015).

The implementation of plan was thought to be step by step after the negotiation of parts concentrated on certain zone. Accordingly, it was announced in May 2017 that

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[146] Personal interview with Oya Erdin "City planner- Department of Urban Transformation", 03.12.2015.

[147] http://www.izmir.bel.tr/Projeler/0/95/ara/tr

[148] Introductory booklet of Ege District Urban Transformation Project, İzmir Metropolitan Municipality.

the first stage of the transformation project would include the tower and two residential blocks with the hundred percent of consensus. The project would be the method of flat received for landownership.[149] However, there has been no construction concerning the area since the parts could not negotiated yet.

(a) (b)

Figure 3-55: (a) Plan of Ege District Urban Transformation Project (b) 3D View of the project (Department of Urban Transformation, İzmir Metropolitan Municipality)

As back to the master plan, there was a final revision on 1/1000 plan notes concerning tourism& commerce, and central business district in 2017. In tourism& commerce section, the flexibility of function transfer on lands having multi landlords when they make the project together was removed. On the other side, the usage of "tourism facility area" was removed from central business district. The restriction of function transfer was also same for the central business district.

Another change in implementation plan covered former Tariş land which was planned by the Ministry of Environment and Urban Planning. Tariş sold its terrain of nearly 171 decare, current demolished parts, to "Emlak Konut GYO" (EKGYO-Real Estate Investment Partnership)[150]. The planning process reached on impasse due to the disagreement between the municipality and land owner. Thus, the

[149] https://www.izmir.bel.tr/HaberDetay/25548/tr, last accessed in 27.06.2017.

[150] EKGYO is the association of TOKİ (The Housing Development Administration of Turkey) under the Ministry of Environment and Urban Planning.

Ministry got the authority of making plans on the area with the act no: 6306.[151] First plan approval was on 10.05.2017 but Konak municipality objected the plan and sued. The ministry made some changes and prepared the plans again in 17.06.2019 after the cancellation of the first plan. According to the last plan, the area included the mix uses of commerce, tourism, housing, religious and green areas. Most of the blocks were quite high-rise with the height of 90-100 meters while a few of them were below 30 meters (Figure 3-56).

Figure 3-56: (a) Former Tariş land 1/1000 implementation plan (b) Site plan (Konak Municipality)

[151] Act no:6306 is the Act of Urban Transformation in Danger of Disasters. The Ministry of Environment and Urban Planning could declare a site as a risky area and get the power of producing master plans beyond the municipalities under favor of this act.

As an overall summary, Alsancak industrial district was significant part of the studies in every planning process since 1900s. First, the area was newly developing in the time of Danger- Prost plan in 1924 and the potential of the site was seen to grow as an industrial zone with the port and railway lines. In 1939 Master Plan, the estimated industrial district changed as Halkapınar but again in 1949, Le Corbusier designed the area very similar to what Danger- Prost did. Indeed, the area had already been developed as an industrial site in those years and Le Corbusier proposed some ideas in his planning schemas to improve the characteristics of industrial zone of Alsancak.

In 1951, the municipality considered necessary to run a contest on urban planning of İzmir since the city had not yet hold a practicable master plan. Thus the master plan in 1953 indicated Alsancak as a district with the facilities of industry and storage.

The implementations were not as it was expected after the master plan of 1953 due to the inapplicable plan. Then İzmir Metropolitan Planning Bureau was established in 1965 after some administrative changes in Turkey. The first plan of the bureau was 1/25.000 İzmir Metropolitan Area Master Plan in 1973. In this plan, there were various decisions related on port as to enlarge it for sea transportation and to remove the industrial port to Çiğli. Later, in revision of the plan in 1989, Alsancak district was identified as central business district.

When it comes to 2000s, there was another competition of Urban Design Ideas for İzmir Harbor District in 2001 including the districts of Alsancak to Turan. General approach for Alsancak was related to represent the industrial facilities and preserve historical buildings within the winner projects.

1/5000 Master Plan for the New City Center was constituted for the districts of Alsancak to Turan with the design ideas from the competition. In the broad perspective, the identified functions for Alsancak were directly related with tourism with the variations of commercial, residential and cultural activities. Industrial heritage was generally special project or planning areas. After the 1/5000 Master Plan, it was expected to get the implementation plans by the district municipalities.

However, there was a gap between the years of approval of 1/5000 and 1/1000 plans such as 2003 to 2011. This is why 1/5000 master plan was in dispute at several times with different reasons and the plan was revised three times till 2010 (Table 3-2). 1/1000 Implementation Plans for Alsancak and Salhane Districts became effective in 2011 after the approval of 1/5000 master plan in the end. Alsancak was planned as business, tourism, commercial and cultural facilities with special project, special planning and special application areas. Following the implementation plans, the first revision was related to Alsancak port to be a part of cruise port in 2012. The plan revision concerning the cruise port was approved in 2015 after some objections and lawsuits between the years 2012 and 2015. Besides, there were revisions on plan notes in 2014 and 2016 mainly relevant with lot sizes in particular situations and the descriptions of tourism, culture and commerce. In 2017, the plan notes were finally shaped with the last change of the description of "central business district" and "tourism+ commerce".

Another project was Ege District Urban Transformation and Development Project containing residential units, commercial and cultural facilities with the aim of rehabilitation of Ege district, which has been recent period projects within the site.

The last revisions, within the time of this study, covers the former Tariş lands where the Ministry of Environment and Urban Planning has involved the planning process. However, it has not come to the end.

In conclusion, Alsancak district and port have been in consideration of planning activities since urban planning studies was proceeded after the Republican period. In the period of development, the site was seen as potential to be an industrial site with the port. After the establishment of production units and port, the area was still in limelight to be used actively with its building stock and transportation network. When the site slowly became a derelict area, the disused buildings with variable functions got the potential of reuse at that case. In other words, intensive planning studies concerning Liman Arkası district in every period has clearly revealed the significance and potential of the site.

1924-1925	Danger-Prost Plan	-The port at the north of Alsancak (current place) -Alsancak as industrial district -Central railway station connecting two lines
1939	Master Plan of İzmir	-Halkapınar as industrial district instead of Alsancak
1949	Master Plan Schema of Le Corbusier	-The port at the north of Alsancak (current place) -Green industrial site between Alsancak and Bayraklı -Railway line between port and industrial site
1951	International City Planning Competition	
1953	Master Plan of İzmir	-The port at the north of Alsancak (current place) -Alsancak as storage and industrial district
1965	The establishment of İzmir Metropolitan Planning Bureau	
1973	1/25.000 İzmir Metropolitan Area Master Plan *Cancelled in 2003	-Extension of current port for sea transportation -Industrial port to Çiğli
1989	İzmir Metropolitan Area Master Plan Revision *Invalidated in 2002	- Alsancak as central business district
2001	International Competition of Urban Design Ideas for İzmir Harbor District	
	* 1st Jochen Brandi	-Docklands with public and residential buildings with green areas
	* 2nd Bünyamin Derman/ Dilek Topuz Derman	-Industrial archeological park -Port as marine park with entertainment and tourism facilities
	* 3rd Ertur Yener/ Erdoğan Elmas/ Zafer Gülçur	-Industrial museums -Cultural and social centers
2003	1/5000 Master Plan for the New City Center	-Tourism settlement area as; Tourism+ commerce/ Tourism+ residential/ Tourism+ commerce+ culture -Special project & planning areas
2011	1/1000 Implementation Plans for Alsancak and Salhane Districts	-Tourism settlement area as; Tourism+ commerce/ Tourism+ residential/ Tourism+ commerce+ culture -Special project, planning & implementation areas

Table 3-2: Planning Process of the Study Area

2003	Approval of 1/5000 Master Plan for the New City Center
2005	Revision of the plan concerning building rights after objections
2006	The master plan became invalid
2007	Approval of the plan again after the change on building rights according to court decision
2009	Lawsuit with the reason of lacking geological surveys
2010	Approval of the master plan with the addition of required surveys

Table 3-3: Process of 1/5000 Master Plan for the New City Center

2011	Approval of 1/1000 Implementation Plans for Alsancak and Salhane Districts
2012	Revision of Alsancak Cruise Port (1/1000, 1/5000)
2014	Revision on plan notes
2015	Second revision of Alsancak Cruise Port after objections
	The change on the boundaries of Ege District Urban Transformation and Development Project
2016	Revision on plan notes
2017	Revision on plan notes
2019	Revision on the site plan of former Tariş land

Table 3-4: Process of 1/1000 Implementation Plans and 1/5000 Master Plan

3.2.3. Conservation History of the Area

In this part of the thesis, the history of conservation practice in the study area will be presented. All of the assizes concerning Liman Arkası were gathered from İzmir Conservation Board of Cultural Heritage between the years 1998 and 2019. Besides, there were lists of registered lots including immovable cultural and natural heritage in the study area. The requests, studies and decisions on preservation of cultural and natural heritage have been significant to see the approaches at such areas

In 1998, with the request of Chamber of Architects İzmir Branch in 1996, the Council for Conservation of Natural and Cultural Entities took the first concrete step with the registration of immovable cultural and natural assets including former industrial complexes, factories, warehouses, residential units within the study area. This was an extensive registration with forty five cultural and natural heritage with nine natural heritage of single or group trees (Table B-1, B-2). Gasworks, electric plant, Şark industries complex, tile factory, Tariş alcohol factory, flour plants were former industrial complexes which were protected under registration. Additionally, seven stores, twenty six residential units, two shops and one house with shop were in the list. Some of the houses were registered with their trees such as oil palm and poplar trees. Also, Gasworks and Şark industries complex were preserved together with their single and group trees, and electric plant with two eucalyptus trees. Moreover, there was a fountain named Piyer Verbek inserted at the wall of Şark industries complex and a lighting pole standing in front of tile factory, which were registered as cultural heritage. There was also natural heritage including ironwood trees, palms, eucalyptus trees, mulberry tree and pine trees.[152]

There was a counter vote for the decision of registration at the preservation board with the reason that "registrations were occurred after the master plan had approved but master plan and registration should be done with coordination" (decree date and no: 8.1.1998-7003).

Following the decision of registration, Metropolitan Municipality of İzmir brought a suit against the preservation board since the decision affected the master plan adversely. In 1998, valid master plan was İzmir Metropolitan Area Master Plan Revision of 1989, which planned Alsancak as a central business district. There were lots of objections from the mayors of Konak and Metropolitan municipalities as the registration decision stopped the development of the area (Yeni Asır, 11.01.1998). Also, there had been the idea of that the master plan was not practicable anymore with the conservation of heritage (Yeni Asır, 28.01.1998). Since the scenario for

[152] Detailed information can be reached from Appendix B.

Alsancak industrial district was to build skyscrapers to create the business district (Yeni Asır, 10.01.1998).

According to the court decision, commission of experts were tasked with the assessment of the edifices which had been registered by the preservation board. The commission chosen by 2nd Administrative Court of İzmir included faculty members of art history and city planning. The elements to be determined were identified as that whether registered buildings had not the historical value or they got the master plan not applicable. Finally, expert's report indicated that all units except extensive industrial complexes were not required to be registered and/or conserved. Additionally, some of the reasons that the registrations were regarded unnecessary stated in expert's report are listed below:

- " It obstructs the road extension,
- It blocks the construction of multi-storey car-park,
- It is an obstacle for the foreseen pedestrian way in Şehitler Street,
- The building exceeds the construction line determined in master plan,
- The architectural features of the building could be seen in many other structures,
- It blocks the extension of Şehitler Street and 1525. Street,
- The building is not 'specific' enough to be conserved."

Analyzing the expert's report, it is probable that while one expert qualified a structure as worth to be registered, another one marked the same structure as not valuable and specific. Yet, when this happens in all the registered buildings, it could raise a question mark in minds. Is the conservation of the top priority, or the master plan? The entire decisions and justifications to remove the registration clearly showed that expert's report was not prepared objectively since it was in favor of master plan. However, the registrations was not removed by the court.

Immediately after the registration, the restoration project of Flour Plant I was the subject of the Conservation Board. Partial project for the use of museum was approved by the board; however, soil survey was needed for the request of basement floor. Two years after the restoration project approved, construction

permit was given for that section of flour plant I in 2000. There were some modifications in the project in 2002 and the name of designer was decided to put on a signboard on the facade of the building. In 2016, survey drawings, restitution etude and restoration project were delivered to the Conservation Board. The drawings and the museum function were endorsed thus the implementation was approved in 2017 with the perspective of the General Directorate of Cultural Heritage and Museums.

Flour Plant II, on the other side, was determined as the 2nd group of cultural heritage in 2005. The survey drawings and restoration projects of the buildings were approved (decree date and no: 03.06.2005-616, 30.06.2005-655). Some modifications were done in the restoration projects in 2009 and 2011. Lastly, in 2012, the closed bridge between the buildings was approved to be rebuilt (decree date and no: 25.05.2012-534). Besides, buildings located in front of flour plant II were requested to be registered by Konak municipality in 2015. The Conservation Board approved the buildings to be registered as the 2nd group of immovable cultural assets (decree date and no: 13.08.2015-3513).

Electric plant was on the conservation board's agenda first in 1999. After a fire in the electric plant while disassembly work, the board decided to investigate the fire and get the restoration project prepared. Following in 2002, the demand for destruction of sheds at the building lot of Electric plant was approved by the board. In 2005, on the other side, the project of building a transformer station on the parcel net to the Electric plant was approved. There was again a demand for new construction next to Electric plant in 2009 and this time the board agreed to build a demountable addition.

As it was mentioned above, only natural heritage of Sümerbank was registered in 1998. Finally in 2001, again with the application of Chamber of Architects İzmir Branch, industrial buildings were recorded as the immovable cultural assets within the scope of the law no. 2863 and 3386. Also means of production were decided to be protected with the unity of industrial archeology. Two months later, the assets of Sümerbank complex were assigned to İzmir Provincial Private Administration in

order to be used for educational functions. In 2002, the request of conveying of a raising machine in Sümerbank was approved by the board. Following in 2004, İzmir Directorate of National Education requested of determination of cultural assets to be protected. So the Conservation Board decided to register the buildings as the 2nd group of immovable cultural assets, which of social facilities (building I), textile printing operations (building II), steam power plant (building III) and the area of water tower (IV). Moreover, means of production would be conserved to be exhibited in the industrial museum formed in the buildings of textile printing operations and drawing of trees with restoration project of the area would be committed to the board. In 2005, the committed measured drawings of water tower area and layout plan were approved.

In 2006, İzmir Directorate of National Education requested several times to build new structures in Sumerbank Complex. This was disputable process since İzmir Metropolitan Municipality formed the view of that the location of five educational units on the facade of the Mürselpaşa street would be a negative effect to perceive the complex and dispersed settlements of the units would be an obstacle for the implementation of master plan, so educational units should be built at the south of the complex. The board got the decision of that if İzmir Metropolitan Municipality or any other establishment did not propose a new plan for the settlement of educational units, the project of directorate would be evaluated. The functions of new buildings were approved as computer labor school, graphics labor school, fine arts high school, garment industry and fabric labor schools and nursery. There was also request of renovation of windows of building I (social facilities). In relation to this demand, the decision was to change the windows with the same construction technique and materials.

In 2007, there was again the demand for sale of the means of products in the buildings and the assize determined that "the preservation of means of products in sufficient number to reveal the production process and appropriate for museum has been still valid and unless the implementations have been accordingly, the board will initiate a legal action" (decree date and no. 20.09.2007-2588). Following, construction of open air sports facility and re-functioning of social facilities

building as conference room were approved by the board in 2009. With the application of Konak municipality, the board took the decision of controlling the approaches whether unsuitable applications were existing or not in 2010. A great majority of Sümerbank Complex was recorded as cultural and natural assets except the west side of 1525 street including lodging buildings and other production units. In 2011, General Directorate of Cultural Assets and Museums applied for registration of these lots; however, this request was not approved with the reason of that the buildings were not qualified to be cultural assets. Following, a wire fence surrounding the new structures was requested in 2013. The conservation board approved the application to do under the control of the municipality. Moreover, building III collapsed and many architectural elements disappeared in other buildings in 2014. The conservation board decided that the reconstruction project for the building III should be prepared and precautions should be taken not to have any loss of life, and not to destroy other buildings. Also, the board declared to make a denunciation for the wrecking of the building III. Another subject was related to the water tower. In 2015, the Provincial Directorate of National Education requested the removal of the water tower since it decayed and it was posing a danger for the environment. However, the board decided to get the water tower be repaired according to the approved measured drawing and the missing parts to be completed instead of the removal (decree date and no. 07.02.2015-2752).

Another registered building lot was Gasworks which was the conservation board's agenda first in 2006 with measured drawings and restoration project. The projects were approved by the board but some corrections and lacking analyses were requested within the process. These were about the correction of measured drawings, analyses on deformations and interventions, addition of site plan with the functioning of open areas, development of restitution and relations of original spaces. After the revisions and additions, measured drawings, restitution and restoration projects were approved by the board with the decision of taking urgent conservation precautions and defining functions (decree date and no. 13.10.2006-1784). However, there was a counter vote arguing that "the functions should be designated freely by administration and designer if there was not any harm and irreversible effect because of the function". He also added that "the board could

only suggest for function and existing functions at the project do not create unfavorable matters" (decree date and no. 13.10.2006-1784). Lastly in 2008, the landscape project of Gasworks was approved after the requested revisions including details of architectural elements, planning of information boards, organization of pedestrian circulation.

Besides the industrial buildings, there were also other decisions for registered residential units, warehouses and other structures, or the lots next to the registered parcels over the years, which could be seen in the table B-3. In order to understand the attitude of the Conservation Board, several of them could be mentioned. For instance, a restoration project of a residential unit, registered as the 2nd group of cultural assets, was rejected in 2002 due to the reason that original facade should be conserved (decree date and no. 21.3.2002-9833). On the other hand, some renovations or basic repairments were approved since it would not damage the structure. At this point, after the decision on basic repairments of a residential unit in 2004, the request of removal of the registration was in order a year later; however, the board rejected this due to the fact that the structure was still architecturally qualified (decree date and no. 10.02.2005-346). There was another demand for removal of registration for a residential unit in 2008 but the board did not approve this and solved the problem with subdivision of parcels according to the registered housing unit and garden with the note of immovable natural asset (decree date and no. 18.01.2008-2938). On the other side, with the request of Konak municipality in 2010, the Conservation Board decided to remove the registration of a residential unit and destruction since the structure was not architecturally qualified anymore and it had the danger of collapse (decree date and no. 24.06.2010-5145).

Additionally, the Conservation Board granted the municipality authorization for unregistered structures next to a registered building lot in some cases such as land use after destruction or the evaluation of unauthorized implementations. In some instances, the board decided for unregistered lots, generally open areas, on behalf of master plan. For example, the request of Turkish State Railways for an open area as to be rented for commercial activities was rejected on the grounds that İzmir

Metropolitan Municipality was working on planning at the area and the implementation should be accordingly (decree date and no: 10.11.2006-1824).

As a different matter, İzmir Regional Directorate of Pious Foundations demanded Umurbey mosque to be registered in 2016; however, the Conservation Board rejected the request on the grounds that the mosque is not architecturally qualified to be a cultural heritage (decree date and no: 12.04.2016-4376).

Moreover, there were subjects of vacant lands as Alsancak stadium and former Tariş site. A new project for Alsancak stadium was the subject of the conservation board in 2017 as the request of evaluating the relation between the project and registered buildings next to it. The board decided in favor of the new project (decree date and no: 28.09.2017-6565). The site of former Tariş land, on the other side, was on the agenda of the board with its 1/1000 plan in 2017 since the site was located next to the registered parcels. The board defined the conservation area boundary and decided that the plan should be prepared in accordance with the implementation plan with the consideration of relevant institutions (decree date and no: 20.12.2017-6904).

In summary, the attitude of the Conservation Board has been quite favorable, as it should be, in the sense of cultural and natural assets. The board got the decisions in consideration of both the registered buildings and the master plan with the priority of cultural and natural heritage. Also, the effort of municipalities, Chamber of Architects, General Directorate of Cultural Assets and Museums to preserve the heritage could not been ignored in some cases. The interesting point is that there has not been any projects for a large industrial heritage, Şark Industries Complex, within the years. Moreover, similar matter has been valid for Electric Plant, although the board requested restoration project several times. On the other hand, the board approved the functioning of registered buildings at Sümerbank complex in 2006; however, no implementations took shape except the additions of new structures. There were also limited projects except the industrial heritage even the registered buildings covered a large space within the study area.

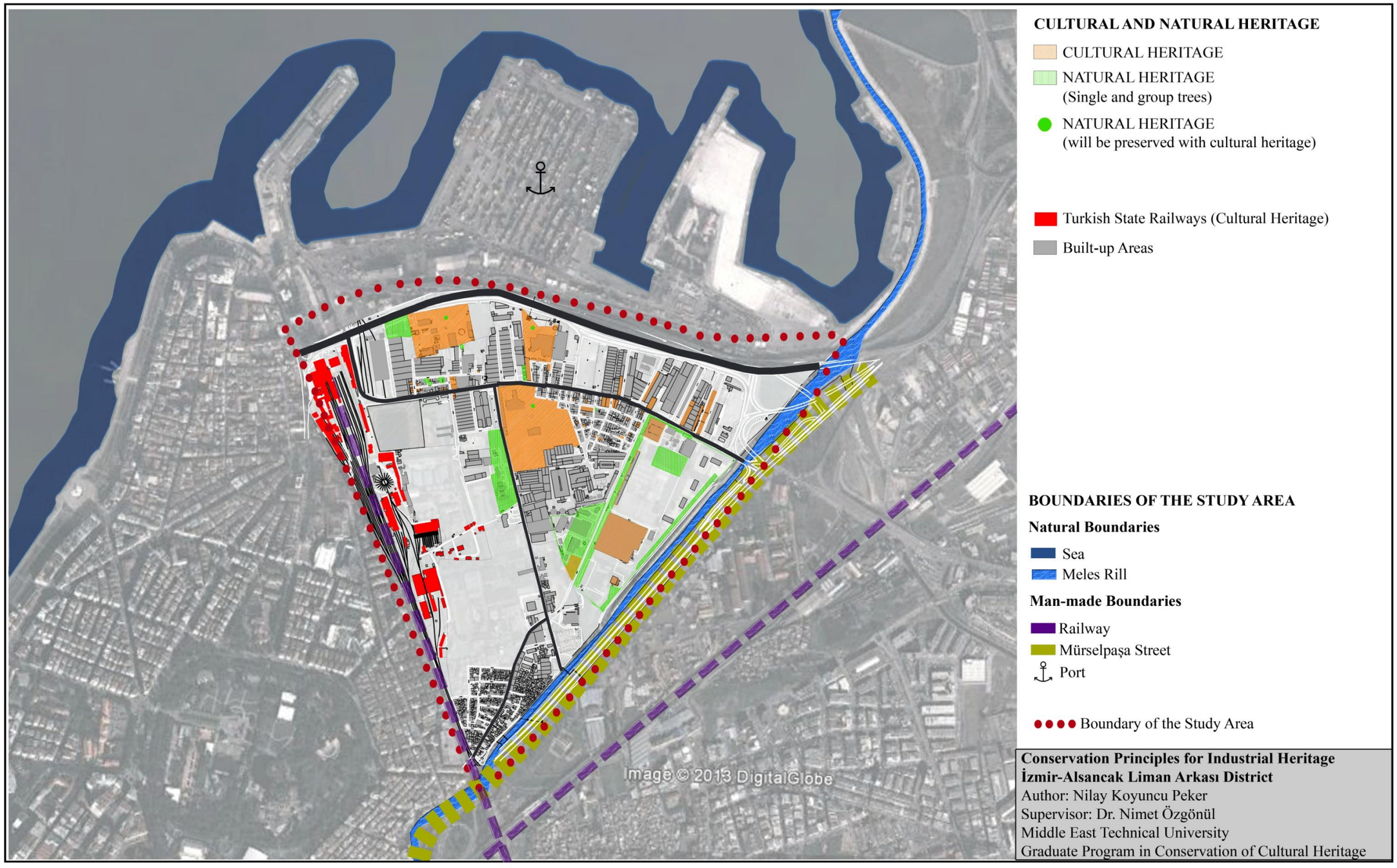

Figure 3-57: Cultural and Natural Heritage in the Study Area

3.3. Legal and Administrative Status of Liman Arkası District

Liman Arkası district with its huge area contains various structures as mentioned in the previous sections. In this section of the thesis, the related institutions and organizations will be examined.

The area, in general, has been subjected to building bylaws of İzmir Metropolitan Municipality. İzmir Metropolitan Municipality identifies requirements with 1/5000 Master Plan and the plan is elaborated in 1/1000 scale by the district municipality which is Konak. The municipality has been responsible for preparing the plans and controlling the implementations. However, the municipalities have not been the only authorities of Liman Arkası.

It was mentioned in the previous parts that the Ministry of Environment and Urban Planning involved the area. The ministry declared two different sites as "risky area" which are stadium and former Tariş lands. Thus, these areas became the realm of authority of the ministry with the Act of Urban Transformation in Danger of Disasters (Act no: 6306). A new stadium project was designed instead of the previous one. However, the situation is different in the former Tariş land. The ministry prepared both 1/5000 and 1/1000 master plans for demolished area instead of the municipalities. It was mentioned in the plan reports that the ministry received opinion of related institutions such as İzmir Metropolitan Municipality, Konak Municipality, İzmir Provincial Office of Mufti, İzmir Conservation Board of Cultural and Natural Heritage, İzmir Provincial Directorates of Environment and Urban Planning; National Education; Health; Disaster and Emergency; Food, Agriculture and Livestock. These lands are currently possessed by EKGYO.

Another area under the transformation phase has been Ege district. The district was declared as Urban Transformation and Development Area in 2011, as mentioned in the previous section. The transformation project has continued under the authority of İzmir Metropolitan Municipality with the Department of Urban Transformation. Precisely, landholders of the district could take part in the project as having right to access.

Besides, the site consists of historic structures to a great extent, as known. Therefore, İzmir Conservation Board of Cultural and Natural Heritage under the Ministry of Culture and Tourism has been responsible for registered parcels and the parcels related to registered ones. Any implementation within these parcels has been dependent on the decisions of the Conservation Board. Legally, the board evaluates the cultural heritage and relevant subjects according to the Conservation Act on Cultural and Natural Assets (no: 2863). The board could offer for consideration of the General Directorate of Cultural Heritage and Museums and the Ministry of Culture and Tourism when needed.

The Conservation Board works as a decision making body yet the landowners of registered structures are also responsible of maintenance and repair of them. Moreover, they are right holders in the first place. At this point, it is needed to refer the property owners as stakeholders of the site. The area includes public and private ownerships. To start with the large parcels within the study area, İzmir Metropolitan Municipality is responsible of Gasworks as being the owner of the industrial plant. Electric plant is also owned by a company under the İzmir Metropolitan Municipality since 16.04.2019. The plant was in the possession of ADÜAŞ before the municipality.[153] Another public ownership in the study area is Sümerbank Complex, whose owner is İzmir Provincial Private Administration. Some parts of the complex, on the other side, were allocated to the Provincial Directorate of National Education and the Provincial Directorate of Security.

[153] ADÜAŞ (Ankara General Directorate of Electricity Generation and Trade Corporation) was allied to the Directorate of Privatization Administration under the Ministry of Treasury and Finance. The Privatization Administration put up the factory for sale with a tender on 16.04.2019. A company named "Grand Plaza Corporation" bought the plant on behalf of İzmir Metropolitan Municipality since there was a limitation for public institutions and municipalities within the tender specifications. Following, the site was given notice to treat by the municipality.

Other large parcels of industrial plants have been hold by private ownerships. For instance, Şark Industries Complex is owned by Şark Industries Company. Similarly, Bağ Oil Factory, historical but not a registered industrial plant covering an extensive land within the study area, is owned by Bağ Oil Industry and Trade Inc. Moreover, Yaşar Educational and Cultural Foundation is responsible for Flour Plant I while another company named MSC Shipping Agency Corporation retaines Flour Plant II. Additionally, Tariş is one of the stakeholders by holding the historic alcohol factory, warehouses, and other management structures. Considering more structures within the study area, Turkish State Railways, State Treasury and University of Dokuz Eylül are other stakeholders besides personal ownerships.

In summary, Liman Arkası is authorized by İzmir Metropolitan Municipality and Konak Municipality with the master plans of 1/5000 and 1/1000. However, the study area also includes the parts which is the realm of authority of the Ministry of Environment and Urban Planning in terms of developing master plans. Additionally, İzmir Conservation Board of Cultural and Natural Heritage is entitled as a decision maker for project designing and implementation of registered parcels. The board could also interfere in the planning when it affects the registered parcels. Thus, the site is subjected to building bylaws of İzmir and the Conservation Act on Cultural and Natural Assets (no: 2863) due to the various structures of both heritage and new.

Furthermore, landlords are stakeholders of the study area since they have the legal right. İzmir Metropolitan Municipality also involves the area with its properties. Other property owners to mention are İzmir Provincial Private Administration, Turkish State Railways, State Treasury, EKGYO, Şark Industries Company, Bağ Oil Industry and Trade Inc., Yaşar Educational and Cultural Foundation, MSC Shipping Agency Corporation and Tariş. Lastly, personal ownerships of both residential units and other buildings should be kept in mind as right holders.

3.4. Evaluation

In this chapter, the appearance of İzmir and the urban development of the city mainly in terms of industry were told in brief. Then, İzmir- Alsancak Liman Arkası district was approached in the sense of general characteristics, history and development. The physical development of the study area was explained. The history part was reviewed both in planning and conservation points. Following, legal and administrative status of the area was referred.

To sum up, İzmir appeared in the prehistoric age yet the city had been looking like an agriculture based town until the 16th century. This altered in the direction of commerce to a great extent at the end of the 16th century with the changing community in the city. The initiation of commerce was the first step of industrial development. On the other side, the city had two ports in the 16th century as inner and outer ports. It could be said that İzmir became a real port city in the 17th and 18th centuries with the increasing commercial relations internationally. Moreover, the city had production units starting from the 17th century. When it came to the 19th century, İzmir was looked like "a westernized city" with its agricultural, commercial, and industrial facilities. The industrial facilities increased in this period with the effect of the industrial revolution thus the city had weaving and paper mills in general. However, the main development of industry occurred in the second half of the 19th and 20th centuries in the level of contributing the economy of the city. There were three main developments causing this contribution, which were the construction of İzmir-Aydın and İzmir-Kasaba railways, and the port with its annexes. In the end of the 19th century, İzmir mostly included flour mills, oil factories, textile mills, leather ateliers and gasworks. In the Republican period, weaving factories increased. The city was the second largest industrial center of Turkey after İstanbul within the years of 1950 and 1960. Oil factories, textile factories, soap ateliers, tobacco, fig and grape factories were the main industrial facilities in those years. Also, warehouses took significant part in the city as wheat silos; cotton, grape, tobacco, fig, and olive oil storages; railway and port related storages.

Liman Arkası district, bordered with Alsancak port, İzmir-Aydın railway and Mürselpaşa street, has been one of the industrial axis of the city in Konak. The area has various types of structures as the categories of production, storage, housing, commercial, management, education, religious and rare structures as stadium, water towers and fountain. The buildings of Turkish State Railways are also located at the border of the site. The site includes both traditional and new buildings. Industrial plants, warehouses and residential units mainly covers the area. Historic industrial plants have been Gasworks, Electric Plant, Şark Industries Complex, Sümerbank Complex, Flour Plants I-II, Tile Factory and Alcohol Factory with specific architectural features. The structural systems of the plants are stone and/or brick masonry in general; however, Sümerbank, Flour Plant II and some buildings of Şark Industries were constructed of reinforced concrete frame. Electric Plant, on the other hand, is distinguished with its steel frame and brick infill. Some of the buildings of Gasworks were built of steel frame and cast concrete with stone or brick. Their roofs are typically steel or wooden truss covered with Mediterranean tiles or corrugated sheet. Moreover, traditional warehouses, in general, were constructed of stone and brick masonry with wooden structured roof covered with Mediterranean tiles. New warehouses were built with various materials yet commonly in accordance with the traditional ones with respect to the mass proportions. Residential units also consists of traditional and new construction systems. However, they have quite different characteristics. Traditional houses were built of masonry system with timber roofs while new houses were unqualified reinforced concrete. The general height of the buildings are six meters or lower than six meters. Buildings between six and fifteen meters follow this. There are structures higher than fifteen or eighteen meters in small part of the site. Besides the built-up areas, Liman Arkası district includes open areas as well. The large open areas include industrial landscapes and demolished sites, i.e. construction sites.

After the general characteristics, how the area emerged is significant to mention. The area was a vacant land having mills for irrigation in the 17th century. In the 18th century, it is known that the site was used for sport facilities and having fun. When it came to the 19th century, small settlements were located as the continuity of Punta area. However, the development of housing decreased with the construction of

İzmir-Aydın railway since the railway was like a border between Punta and the study area. Thus the area started to become an industrial district with the construction of Gasworks, mills and warehouses at first. After the midst of the 19th century, the production and residential units emerged together yet the dwellings were mostly belong to workers while they were the prestigious houses of minorities in advance. The rest of Punta was used as vineyards and fields. The area was called as Darağacı in the beginning of the 20th century with both of the surrounding railway lines, which was consisted of warehouses, production units, houses, graveyard and necessary facilities as churches and school. That shows the Greeks were living in Darağacı in majority. The names of warehouses, factories and streets also supported this. The area was mostly settled in the first half of the 20th century, including flour plant, Gasworks, electric plant, Şark industries, stadium, Bağ oil factory and Tariş as large structures. Following, Sümerbank complex and Ege district filled the site in the second half of the 20th century. Besides, the construction of Alsancak port affected the characteristics of Darağacı by increasing the storage facilities. From now on, the site was called with backyard of the port as Liman Arkası. Also, it is understood by the building stock that the community changed over the years. Greek cemetery and churches did not survived yet a mosque was placed. Liman Arkası has already been settled at the present time until the demolishment created large spaces within the area in recent years.

Today and in the past years, Liman Arkası district has always been the subject of planning studies. The site was still developing when the first planning study regarding the area became in 1924 by Danger-Prost. The site was designed as an industrial site, as it was, separated with green line. Also, İzmir- Aydın railway line was removed in the plan that it was the reason determining the characteristics of Liman Arkası as an industrial the site. Following, the site was on the agenda in the master plan of 1939 and Le Corbusier plan in 1949. However, none of these plans were implemented thus the Metropolitan Municipality run an international city planning competition in 1951. The master plan of the first winner was approved in 1953, which designed Liman Arkası district as storage and industrial function with its port but the plan became unviable due to the unexpected population increase. There were some revisions of the master plan until 1960 yet it could still not

implemented. However, it can be said that the main ideas for Liman Arkası district were realized since Alsancak port was constructed in 1950s and the area was used densely with the storage function and industrial facilities. Afterwards, 1/25.000 master plan was prepared in 1973 and a revision was made in 1989, which proposed the site as central business district. These plans were cancelled or invalidated due to various reasons. After a while, another planning competition was organized as to have urban design ideas in 2001. Then, the municipality prepared 1/5000 master plan in 2003 by regarding the ideas from the competition. The 1/1000 implementation plans, on the other hand, were prepared in 2011 by the district municipalities since the court process was effective for the master plan between the years 2003 and 2010. There were lots of revisions of the implementation plan since 2011. Finally, the proposed functions for the site were basically tourism, commerce, residential and culture. The usage of Liman Arkası district changed since the beginning of the planning studies. First, the site was mainly designed as industrial zone and the ideas were based on to develop the industry and storage functions. New uses, starting with business, were proposed for the site after it lost the original function. The final decision was to create a new city center in Liman Arkası district due to its location and potential for the city. Thus the mix usages of tourism, business, residential and cultural were assigned for the site as to be the new center. It is still problematic today due to the unclear planning studies with lots of interventions of various institutions. These transformations will affect the industrial heritage within the site yet former Tariş lands designed as residential zone and the transformation of Ege district have been still undetermined. Speaking of the industrial heritage, the registered parcels of former industrial plants were mostly specified as special planning/ project areas under the control of the conservation board. However, individual buildings were assessed within the master plan. Indeed, most of these buildings were already restored and actively used with different functions. Thus the conservation board has been still the authority whether it is defined in the master plan or not.

The main problem of this thesis was mentioned as to conserve the cultural heritage in general focusing on the industrial heritage. At this point, the conservation history of the study area was examined, which started with the registrations in 1998 when

the conservation board shared the authority on the site. The registrations created some problems between the institutions as it happened in the master plans. This time, the municipalities objected the decision of the conservation board since the registrations were seen as an obstacle for the master plan. However, the court decision was in favor of the cultural and natural heritage. The arguments about this had a valid reason that the planning studies and registrations should be simultaneously. Though, it should not be the justification for not to conserve historical structures. It is clear that the conservation history of the study area began eventfully yet it reached a common ground in the end. The decisions concerning the heritage were for the sake of the preservation of them. However, it can be arguable that to what extent the structures were preserved. There were assizes regarding the measured drawings, restoration projects, land use projects, addition of new structures, repairments, renovations, and so on. Gasworks, Flour Plants I- II, Tile factory and alcohol factory were restored and reused up to now within the registered production units. Besides, some of the warehouses were also reused with various functions. Some of these buildings lost their original features. Mechanical equipments and space organizations did not survive. On the other hand, any project regarding Electric Plant, Şark Industries Complex and Sümerbank Complex was not delivered to the Conservation Board. These structures have been in very bad condition and not the landlords nor the board or municipalities have adequately concerned them. Sümerbank complex was given a land use plan yet any implementation was made except the addition of new structures. The empty warehouses and houses have also been in a similar condition. The registration was the first step for the conservation of cultural and natural heritage yet the maintenance and right implementation have been necessary for the survival of them. The enforcement and the supervision should be provided by the conservation board while the property owners and related institutions should do their share.

Herein, the property owners and related institutions could be summarized. The Metropolitan Municipality, Konak Municipality and the Ministry of Environment and Urban Planning have the right to produce master plans for the area. Even if the ministry does not involve the whole site, the realm of authority clashes. On the other side, İzmir Conservation Board of Cultural and Natural Heritage has the

authority to make decisions on registered parcels and the parcels affecting them. Besides, the site has both public and private ownerships. The Metropolitan Municipality, İzmir Provincial Private Administration, Turkish State Railways, EKGYO, Şark Industries Company, Bağ Oil Industry and Trade could be counted as landlords having extensive lands within Liman Arkası.

In a general evaluation, the physical development of Liman Arkası district was shaped in the 19th century after a long time the city had emerged. The settlement initiated with the housing as the continuation of Punta district; however, it evolved as production and storage units with the construction of İzmir-Aydın railway. The site has included the earliest examples of factories in İzmir such as Gasworks and Electric plant. These are also significant as being the second examples in the Ottoman Empire after the ones in İstanbul. Moreover, the site acts as the only historic industrial district in İzmir with all of the components since other industrial plants were located separately within the city.

Liman Arkası district continued to develop as a whole including residential units, warehouses and industrial plants. The site could be easily divided into zones according to these functions (Figure 3-58). In this respect, warehouses intensify between Liman and Şehitler streets. Housing zones are located in three different areas; one of which is between the stadium and Gasworks, the other one is between Şark Industries and Sümerbank complexes, and the last one is on the south point of the area as Ege district. On the other hand, industrial plants are settled in parts between Liman and Şehitler streets. Moreover, they cover an extensive land on the east of İşçiler street. The terrain of Turkish State Railways also spread large area at the west edge of the site as part of the industrial facilities. All of these category of edifices should be taken into consideration together. The residential units which emerged with the industrial facilities cannot be thought separately as how it should be in an industrial complex. Liman Arkası district retained the characteristics of being an industrial site till the production units lost their original functions. The site also continued its connection with the port. First, it was connected to the historic port of İzmir, supported by tramline. Today, the site has been using with the storage function as part of the industry and it is linked to the new port on the north. The

colorful containers within the port have a strength of being a modern version of storage facility as a continuation of the warehouses in the site.

When examining the general characteristics of the immediate surroundings of the site, a few historic industrial plants are located around. Tekel Tobacco Factory are settled on the west while Flour plants and the chimney of a traditional factory are located on the east in Halkapınar. Also, Bomonti Beer Factory, located on the south of the flour plants, is on a transformation process with the additions of new structures. Apart from these, storage facilities are situated in general at the west part of Mürselpaşa street. When it goes to the north, through Bayraklı, the high-rise buildings dominate the site. On the other side, the east part of the study area, i.e. Alsancak, consist of mixed uses with the residential district characteristics including traditional Punta houses. The fairground is also located on the southwest of the site. Moreover, the south part of the study area contains buildings mainly serving as business and housing facilities. Nevertheless, the zones within the study area has no direct relation with its immediate surroundings apart from the physical connections via roads, railway and tramline.

In the assessment of the physical connections within the site in itself (Figure 3-59), there are many streets in the residential zones due to the small parcels, which makes easy to access. However, the land between Liman and Şehitler streets mostly has vertical connections between these two streets since the buildings are settled perpendicular to the sea except Gasworks and Electric plant. Moreover, there are limited connections due to the subdivision. Most of the streets initiated in Şehitler street end in the private lot boundaries. On the other hand, large parcels of industrial plants create long edges. The boundaries obstruct the accessibility together with the dense settlements. This issue appears on the west of İşçiler street.

The site has been in a bad condition for a while with its significant yet damaged heritage. It is clearly seen that most of the registered buildings were left to decay while unregistered ones were already demolished. Meanwhile the plans could not be implemented to transform the area in a favorable way. Liman Arkası district is quite extensive having lots of stakeholders. The problem of ownership could be an

obstacle regarding the implementation. The parcels having multi landlords could have some problems due to the negotiation. The public ownership is seen as advantageous yet the situation has been same in Sümerbank complex or Electric plant over the years. Even, the most damaged industrial complex is Sümerbank. Besides, the concern of income has been in the foreground than the conservation. Moreover, many institutions is willing to be inclusive of the site since the location is attractive as to be the new city center. It is good to mention at this point that the characteristics of Liman Arkası is quite different than Salhane and Turan, which the planning studies have been conducted together. In the end, the significance of Liman Arkası district has not been adequately known and the consciousness of conservation has been fallen behind the economic concerns.

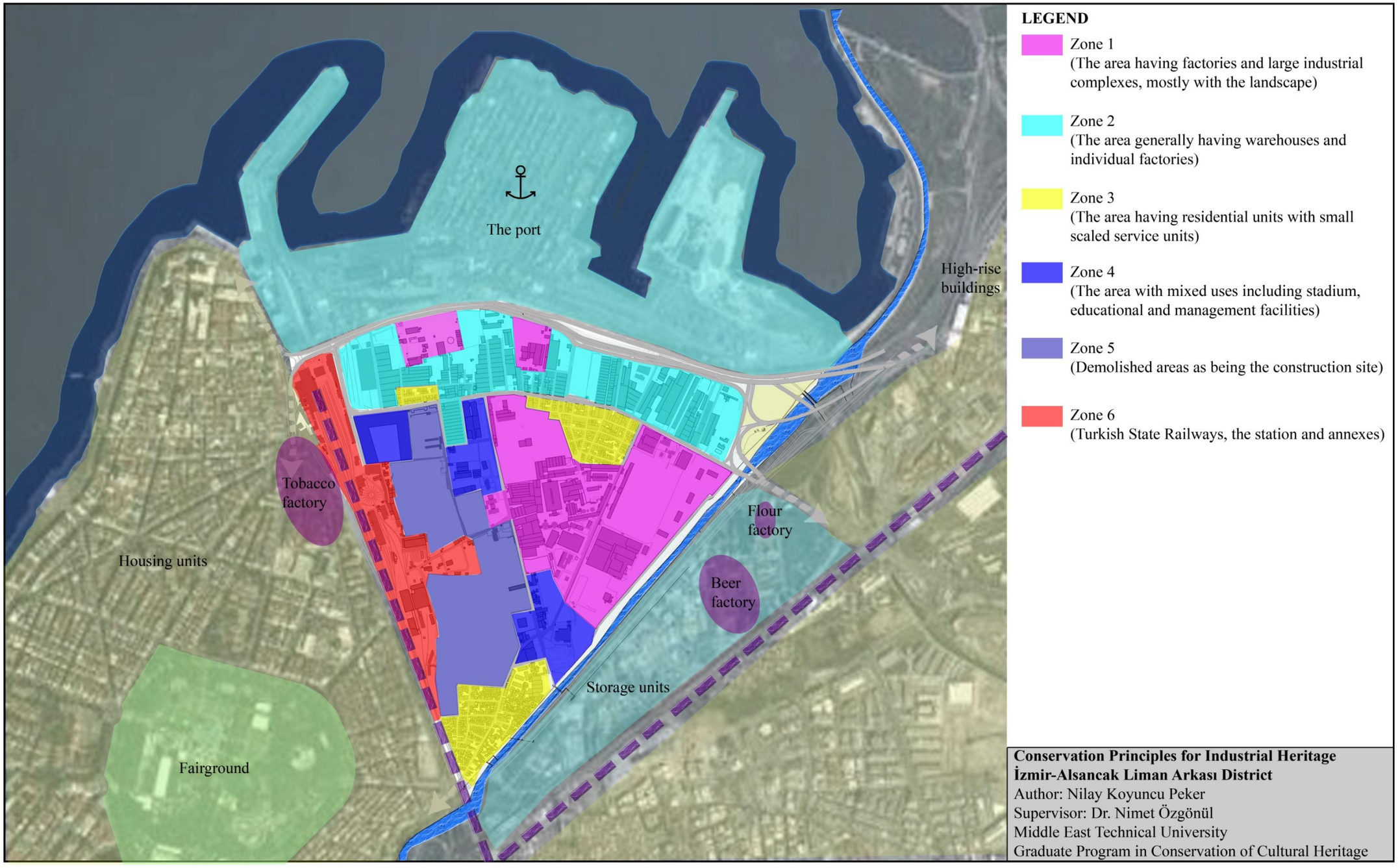

Figure 3-58: Zoning in the Study Area

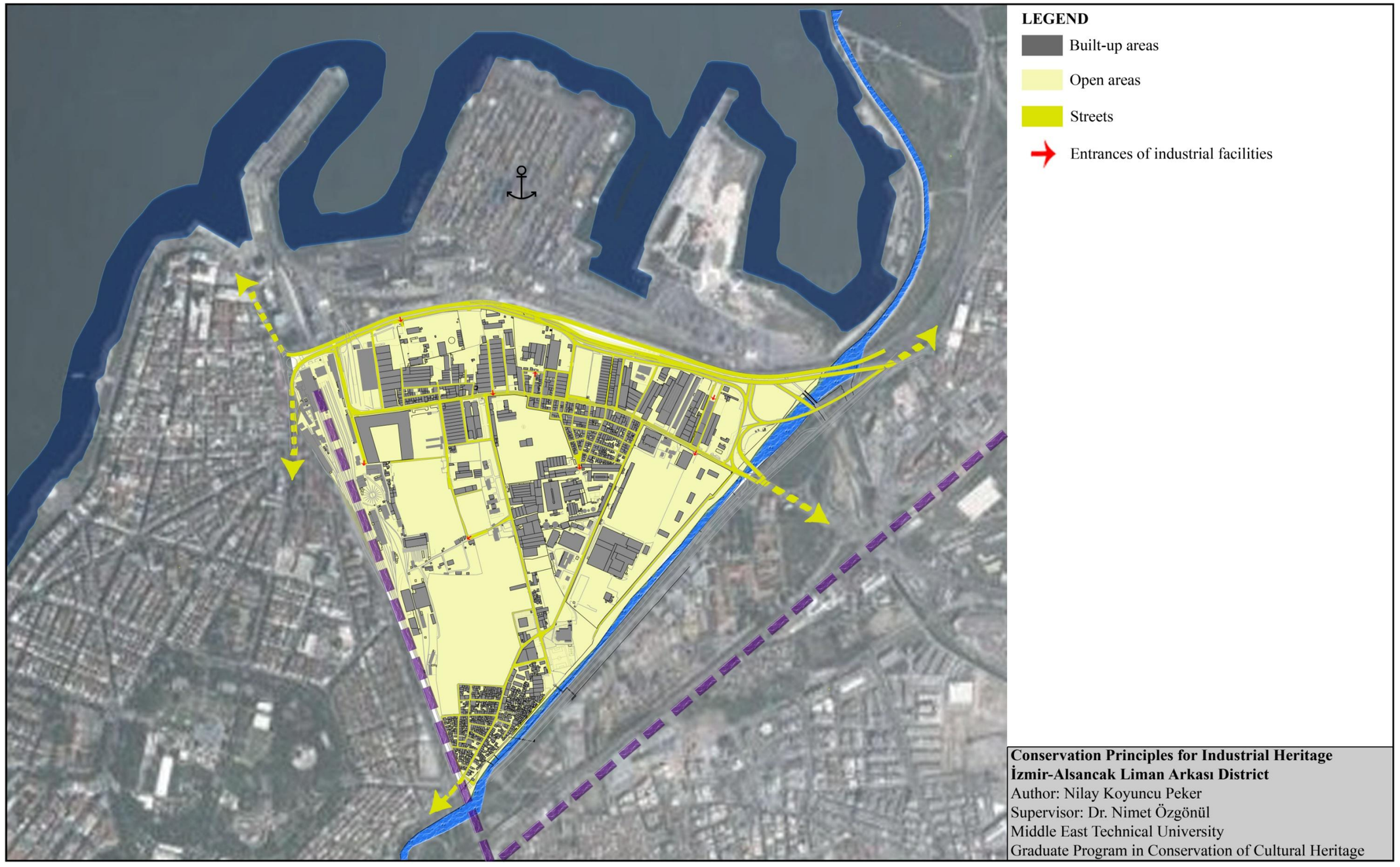

Figure 3-59: Built-up and Open Areas in the Study Area

CHAPTER 4

ASSESSMENT OF İZMİR-ALSANCAK LİMAN ARKASI DISTRICT

Alsancak Liman Arkası district was comprehended with all of its characteristics in the previous chapter, starting from the first development to the current situation of the site. In this chapter, a comprehensive assessment will be done via values, problems and potentials. The assessments will cover different scales as the urban scale "İzmir", the district scale "Konak", and the study area scale. The scales of the city and the district will be approached in brief. These analyses will help to understand Liman Arkası district precisely. Finally, a general review will be done concerning the area.

Firstly, the values of the area should be determined in order to tell the significance of Liman Arkası district, which is one of the aims of this thesis. It is necessary to appreciate in what terms the area is valuable so that should be conserved. Values assigned to the site will also help to develop the conservation principles. Indeed, the conservation principles should be based on "understanding cultural heritage value" with all aspects (ICOMOS, 2010). The unification of these values have come up with the term "cultural significance", which can be called as heritage significance or cultural heritage value (ICOMOS, 1999). That shows us the direct relation between value assessment and significance of place, which leads to the purpose of conservation.

Following, determining the problems of the area is one of the main concerns since the problems should be solved as part of the conservation matter. Thus, it is required to find out the problems and come up with the possible answers. Problem definition of this thesis was done in the first chapter in brief yet it will be handled in detail in this chapter.

Lastly, the potentials of the area should be specified to see the possible approaches for the site. Determining potentials is one of the aspects of evaluation which forms the decisions concerning the area.

All of these analyses will shape the conservation principles for Liman Arkası district together with the previous chapters in the end of this thesis.

4.1. Values of the Area

Value assessment of cultural heritage has been widely discussed in many international charters and organizations until now. It has been mentioned that value is the reason of conservation. Value can be defined "as a set of positive characteristics or qualities perceived in cultural objects or sites by certain individuals or groups" (De la Torre, 2002, p.4). Feilden and Jokilehto (1998) also point out the value "as the relative social attribution to things, depending on society and can change over time" (p.14). Value types for architectural heritage were determined by many specialists and these definitions will be referenced in text while specifying the values for the study area.

Starting with urban scale, Liman Arkası is located in İzmir which is one of the prominent cities of Turkey with its contribution to tourism, commerce and industry. The values in the urban scale contributing to the site will be handled. In a broad perspective, İzmir is situated in a valuable location in itself on the Aegean sea, close to the Greek islands. Aegean Sea and Greek islands are natural values for the area in the urban scale. İzmir gulf is also substantial as natural value in a closer view. Being as a coastal city, İzmir is one of the preferred touristic routes with its towns and city center. Alsancak is the main district which is certainly stopped by people visiting the city. İzmir has lots of opportunities in terms of accessibility such as sea transportation, highways, railways and airport. The city has consisted of many natural sites, historical and archeological settlements. Since it has been a historical city, İzmir has included cultural heritage to a great extent. Besides, there have been examples of restored industrial heritage within the city. Thus the area has been seen important in the city in terms of physical development and supporting the tourism facilities.

When it comes to closer to the study area, it can be reviewed within the boundaries of Konak district. Similarly, Konak has comprised many historical, archeological and natural settlements close to Liman Arkası district. In the near surrounding, Alsancak urban site, Kordon historical site, the Fairground historical site and the 2nd degree natural site have been located on the west. Diana Baths have been situated on the east side as the 3rd degree archeological site. The district has historical ports as Pasaport and Konak Pier. Alsancak port and the ferry port have also been substantial for the area as being actively used. The location on İzmir gulf has been valuable due to the connection to neighboring districts. There are historical factories of tobacco and alcohol, paper mill, flour plant located in the close neighborhood. These have been instances of reused industrial heritage that could affect the study area in a good manner. Moreover, "İzmir-History Project", conducted by İzmir Metropolitan Municipality is a valuable study that can be beneficial and directive even it has not contained directly Liman Arkası district.

In the study area scale, value assessment could start with the social values. The industrial heritage has the social value as part of the record of people, providing "an important sense of identity" (TICCIH, 2003). As an initiation, the railways shaped the site in history. Both İzmir-Aydın and İzmir-Kasaba railways have the "age value" with their long story. Age value is called within the memorial values by Riegl and express "the signs of age and patina" (Jokilehto, 2016). They are also precious as having the continuity in original function. In the context of heritage, the buildings of the railways and the industrial plants remained from the Ottoman period are certainly included of age value with their construction dates. In a closer view, the construction of tramline within the site, as a new addition, is notable which revives the historical trace of that in Şehitler street previously. Alsancak port, on the other side, is located right in the north of the area, which is significant for industrial and commercial relations of the city. The port, even with its late history, is the "identity value" for the site since the study area has been called with the port after its construction. Identity value is admitted within cultural values, which is associated "to an object or place by individuals or by a community" and is depended on the acceptance by the public (Jokilehto, 2016).

Following, Liman Arkası district has contained different usages both in history and in present. The site has mainly covered residential, industrial and storage facilities in advance while it has included residential, industrial, storage, commercial, educational, management etc. facilities today. The functional variety has enriched the area. Moreover, the relation between the built-up and open areas has been steady. Open areas have been substantial as the structures. Now that mentioned the structures, historical buildings comprised of houses, warehouses and industrial plants have "historical value". Cultural heritage has the capacity to have relation to the past with its nature and meaning, which can be specified as historical value. That can happen with several ways: "heritage's material age, association with people or events, rarity and/or uniqueness, technological qualities, archival/ documentary potential" (Mason, 2002). Many of these could be seen in the study area, which will be mentioned. For instance, the materials of many structures were dated to the 19th century. The area also has the relation with the industrial revolution since it developed afterwards. At this point, industrial heritage of the site has been significant that they have provided data about the industrial movements of a period. In this respect, industrial heritage has "educational value". Mason (2002) mentions educational/academic value as the subtype of historical value and describes as "a potential to gain knowledge about the past in the future". Jokilehto (2016) also relates educational value to tourism.

Social structure is another feature of the study area. Ege district of the 20th century has the cultural richness with its community and the formation of a period's housing type. The district is still in use today with its people. In the general sense, the site was consisted of workers mainly of Greeks and minorities at first in terms of community that lived in. The community slowly changed with the constitution of Republic but the workers and residents still formed similar associations since there were large factories at the site with their crowded users. At this point, all of these have created the "commemorative value" in Liman Arkası district. The users, the residents and the workers have life experiences that have formed the recollection. It is worthwhile to preserve the place of public memory. Meles river is also valuable as part of the historical memory of İzmir. It was mentioned in previous chapter that the river had been mostly referred by travelers and historians as describing the city,

one of its tributaries has reached the study area. It has also been seen in most of the city maps.

Continuing with the natural values, the sea and Meles river are significant for the site besides from the social value of Meles. At this point, the location could be mentioned. Liman Arkası is placed in a quite significant location next to the city center on İzmir gulf, in between the significant districts of the city. It is very easy to access the site via using various means of transport which are ferry port, highways, urban rail, tramline, metro line, or even by walk from the neighboring districts. Thus, accessibility could be seen as another value for Liman Arkası.

Apart from the social values, the physical values are substantial within the site. Industrial plants and warehouses preserving their original features as construction techniques and materials have been notable for the site even most of them have lost the space organization inside. These structures have carried out the "authenticity value" in Liman Arkası district, which is considerable for value assessment because it is meaningful to attribute values for heritage when we see the original forms. That was already cited by ICOMOS (1994) as;

> " ...Knowledge and understanding of these sources of information, in relation to original and subsequent characteristics of the cultural heritage, and their meaning, is a requisite basis for assessing all aspects of authenticity."

In the study area, an original lighting pole has been located in front of the tile factory as the only historical street furniture. This also brings authenticity value and "rarity value" as part of historical value. Jokilehto (2016) points out rarity value as one of the impacts of recognition of heritage, which could be "extremely old or rare" and mainly based on historical research. Gasworks, Electric Plant and Şark Industries could be counted as part of it. Moreover, the fountain located on the wall of Şark Industries is single within the site. There are two water towers with different characteristics, one of which stands on Şark Industries Complex and the other is located on Sümerbank Complex. Water towers could be considered as landmarks. Being rare could be a significant aspect while contributing to the values; however,

the features creating the unity in the area are also worthwhile. The warehouses and factories having similar architectural characteristics with the construction techniques and materials enriches the area with "integrity value". When heritage is in a "whole, complete and unimpaired condition", it can better express the meaning thus assessing "the level of integrity" is one of the heritage evaluation processes (Zancheti, 2016).

Having similar or different characteristics, there have been industrial heritage from different periods within the site. The earliest examples of industrial heritage of the city are located in Liman Arkası district, thus Gasworks and Electric Plant have hold age and historical values. Both with the singularity within the city and the architectural characteristics, these structures also hold representative value. Şark Industries Complex, on the other side, has a different strength that it is the extension of a significant mill of the 19th century, which is Pittaco mill. The mill was in use in the site as one of the earliest industrial facilities like Gasworks.

Sümerbank Complex is another important industrial plant since it is the only example of a real industrial complex within the site. Bağ Oil Factory is an instance of active industrial plant, having the continuity in use and it has also taken attention with its architecture. Residential units are the examples of the housing units of the 19th century in İzmir, continuing Punta district. Housing units have also expressed that the site has not evolved merely as the production function. Either the industrial buildings or the residential units have distinct architectural features particular to their periods. Also, other types of buildings have shown different characteristics. So the area provides the chance to see various types of structures from different periods, which means various architectural characteristics defined as physical values.

It is also notable for us that the historical buildings can still continue their survivals. However, most of the structures have left idle as mentioned in the previous chapter. These structures that completed their original functions stand to be adapted a new use, which brings "use value". Use value could be defined as being "tradable and priceable in existing markets" (Mason, 2002). Mason (2002) also describes it as

market value as one of the economic values of heritage, referring "admission fees, the cost of land, and the wages of workers". These structures are easily assigned a price to provide gaining money over them.

In brief, Liman Arkası district is like a reflection of the architecture from the 19th century to the 21th century by including different types of structures having various architectural characteristic. It shows the transition of the architectural style with the materials and the construction techniques. The area holds social, physical, economic, and natural values with its heritage, which bring the need of conservation to endure the significance.

In summary, the values within the site can be grouped as;

- Social values
    - Age value
    - Historical value
    - Identity value
    - Commemorative value
    - Educational value
- Physical values
    - Authenticity value
    - Rarity value
    - Integrity value
    - Representative value
- Economic values
    - Use value
- Natural values
    - Meles river
    - Sea / İzmir gulf

Figure 4-1: Warehouses and alcohol factory having integrity value (Author, 2015)

Figure 4-2: Residential units with integrity value (Author, 2015)

4.2. Problems of the Area

Initial point regarding the problems of industrial heritage conservation is the legislative framework, mentioned in detailed in the previous chapters. It is good to get over some aspects briefly in respect to the conservation law in Turkey, which affects the study area and similar sites. One of the main issues is that the legislations do not cover industrial heritage concept. The short-comings in the act have been general problems for the conservation of heritage. Moreover, implementation processes for cultural heritage have been too long so property owners or other investors are not willing to take part generally. Landlords have thought that registration brings legal barriers for them. The conservation and maintenance of historical structures have been a charge on them. These general problems concerning the legal processes mostly avoid the stakeholders to take a step in conservation.

To start with the urban scale, it can be said that the settlements have not been connected functionally, socially and physically. Liman Arkası has stood apart from the neighboring districts with its outsider functions and idle structures. This also blocks the social connection between other districts. Also, physical disconnection causes an isolation through the long sides of the study area. Meles river, highway, and İzmir- Aydın railway restrain the accessibility. They create boundaries on the west and east parts of the site. There is just Liman street that physically connects the site to other neighborhoods. One can reach the site from this street at first, then he can use other streets within the area. Halkapınar is also disconnected to the site both as socially and physically. Another obstacle to reach the site is Ege district. The differences in the social structure and the poor condition of the district unfortunately cause an isolation from the city on the south part of the area.

Moreover, there has been a demand to create a new city center within İzmir for many years, which indicates the study area. However, this demand creates a problem in the study area in terms of new development and settlement pressure. The infrastructure has not been sufficient to meet this development. Besides, the area has been designed together with the districts surrounding the gulf yet Liman Arkası

has different characteristics with its historical background. There has been high-rise buildings in the surrounding neighborhoods, which can create another pressure of new structures with regard to urban transformation. New building zones have started to surround the traditional urban fabric. The area is located in a very crowded district thus the density has caused the traffic and pollution. It is mentioned that İzmir has included many cultural and natural assets, archeological sites. Liman Arkası remaines in the background compared to other cultural heritage within the city. Also, there is no connection between other historical and cultural sites. There is lack of representation about the industrial heritage and the related institutions in the city look like underestimating the area with regard to heritage buildings. For instance, Liman Arkası has not been handled together with the other heritage in Konak as it happened in "İzmir-History Project", which was mentioned in previous part.

Port, on the other side, has been seen as restrictive for the development of the area as a commercial port. It also restrains the site to be physically perceived from the other side of the gulf. Moreover, the shoreline, continues in Bayraklı and Konak districts, has been cut in Alsancak port section. In another point of view, the port has blocked the direct relation with the sea and the site as in the history.

In a broader scale, the problems can be summarized as;

- Disconnection between neighbouring districts and study area
    - Social and functional disconnection
    - Physical disconnection
- High-rise and dense construction pressure of neighboring districts
- Disconnection and underestimation of the area compared to other cultural, natural and archeological heritage
- Pressure of new city center demand
- The physical effect of the port
- Crowded neighborhoods causing traffic and pollution.

In the study area, maintenance and conservation problems of heritage buildings have come first within the scope of this thesis. Not being used actively has increased the issue of regular maintenance. The general condition of the unused structures are quite bad and they have the danger of disappearance. The architectural features have been vanishing due to neglect. Besides, most of the industrial heritage has not included the means of production anymore. They were either sold or stolen due to the inadequate preservation and surveillance of the sites. When it comes to the structures in use, we encounter with the problem of inappropriate practices. The original facades and interior spaces have been altered in many restored examples. Some of the historical buildings have lost their original construction techniques due to the interventions. Indeed, only registered industrial heritage have preserved the original facade organization, material and construction technique. This time, interior organization has been lost. Some of the other structures were added reinforced concrete beams and columns while original window and door openings were altered in some examples. Some of the historical warehouses were also covered with facade cladding. Thus, these structures cannot be perceived whether they are historical or not as a result of the wrong implementations. Additionally, the use of signboards within the study area is quite problematic. In general, they have not been designed modest both in historical and modern buildings. Also, signboards have been inconveniently used on facades and walls of the historical structures.

With regard to conservation problems in the building scale, a few of the industrial heritage have been restored and reused; however, there is not an integrated approach in the area as a deficiency. The electric plant, Şark industries factory, Sümerbank complex, many warehouses and residential units have been doomed. There are also constructions within the study area. Alsancak stadium, for instance, was demolished and construction has been continuing. The new structure is quite different than the previous one in terms of scale and design. Not the preference of design but the scale of the structure may be debatable since it crushes the historical buildings with its extensive mass. Former Tariş land is another construction site and Ege district is urban transformation area, as mentioned in the previous chapter. These sites are still within the project phase. The project for Tariş lands is

contradictive with its high-rise buildings. If it is implemented, it will be another structure, i.e. structures, overbearing the site. The transformation project of Ege district is also debatable in itself that whether it is appropriate for the community or not. It also includes high-rise buildings.

Alsancak stadium or the potential projects are not the only controversial structures in the study area. Some of other new buildings are also not compatible with the historical fabric with their extensive masses. Moreover, some of them do not hold any architectural features as being shanty structures. All of these have handicapped to understand the characteristics of the area.

The disconnection of the study area with neighboring districts has been mentioned above. However, Liman Arkası district already holds this problem within its boundaries. The part between Liman and Şehitler streets is more lively but the site looks like wreckage through the south part. The demolished lands and the poor condition of Ege district have also negatively affected this situation. Besides, restored industrial buildings are located on the front part yet the south part of Şehitler street includes disused industrial heritage. The functions of the buildings may also be seen as problematic. The part between Liman and Şehitler streets have been mostly used as storage, which is not directly related with the people. In other parts, repair shops are located in general. Physical disconnection is also notable within the site. Accessibility in the study area is difficult apart from the residential zones. The parcel sizes mainly cause this trouble. Factories locate on large lands compared to houses and warehouses. Yet, some warehouses could settle on broad sites when built as rowed. Extensive property boundaries restrain the accessibility.

Another problem concerning Liman Arkası district has been ownership and demand for income. It is observed that when there is a private ownership, no conservation attempt has been seen on the structures. If the structure has multi landlords, the negotiation problems occur this time. Financial problems, on the other side, have been valid. The public institutions are not economically sufficient yet the investors are willing due to the long periods of transformation process.

In summary, the problems within the study area can be specified as;

- Maintenance and conservation problems
    - Disuse and danger of disappearance of heritage
    - Vanishing of the means of production
    - Wrong implementations of traditional structures
    - Inconvenient signboards on facades and walls
- Not having an integrated approach
- The conflict of old and new
- New structures not having any architectural features
- Disconnection within the site
- Ownership and financial problems.

Figure 4-3 : The view of the port and the site from Bayraklı (Author, 2019)

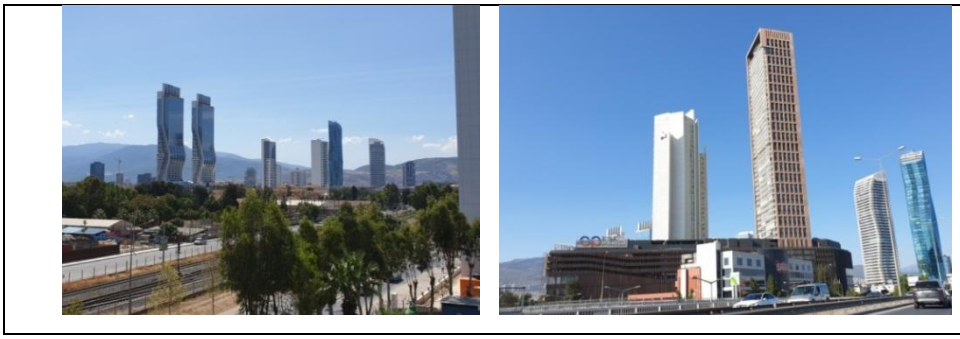

Figure 4-4 : High-rise buildings in Bayraklı (Author, 2019)

Figure 4-5: Wrong implementations causing historical structures to lose their original features (Author, 2015)

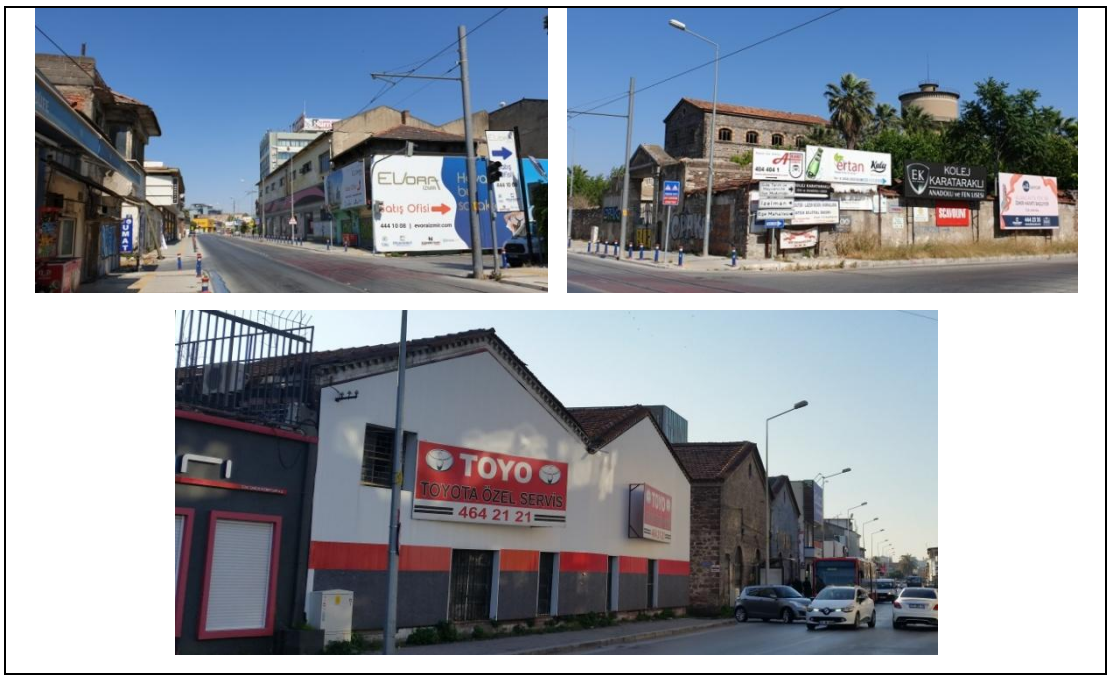

Figure 4-6: Inconvenient signboards on facades and garden walls (Author, 2019)

(a) (b)

Figure 4-7 : New buildings crushing the traditional structures with their masses
(a) New stadium (Author, 2019) (b) New storage (Author, 2015)

4.3. Potentials of the Area

İzmir, located in the Aegean sea, is a preferred city by people both as a tourist and resident. The city has the potential to be developed in terms of tourism, trade and industry as always mentioned. Aegean sea has been already significant in terms of tourism and transportation facilities all by itself. In the urban scale, the location of the study area is also favorite as mentioned. Liman Arkası has been seen as having the development potential to be a new city center mainly with its location. The accessibility of the area also supports this with many alternative means of transportation even there are some problems to reach the site. In the context of accessibility, Alsancak port is a great potential for the city promoting transportation and commerce. Railway lines and highways are other opportunities for articulation in the city.

The city has included many historical and archeological sites, having the touristic and cultural potentials. The area, in this respect, could be an alternative route supporting the tourism, additionally the industry tourism within other sites in the city. Konak district has hold a great deal of historical and archeological settlements within İzmir. Liman Arkası district is close to these settlements in Konak so the site could be involved in a touristic route with its location. On the other side, the north

of the study area has been mainly consisted of new buildings as mentioned. Therefore, the site has the potential to be a "transition area" between the old settlement in Konak and the new city expanded through the north.

In the study area scale, the location could be an initial point with its natural potentials such as the gulf and Meles river. Waterfront or water related areas have always been attractive for "urban transformation". Additionally, Meles river has the potential to tell the significance as part of the historical memory for the city. Besides, Ege district has the potential for urban transformation, which will affect both the city and the site. The accessibility of the study area has been greatly mentioned. In the study area, the street pattern between the large parcels is a great potential to improve the accessibility within the site yet they are either closed or in bad condition. Disused open areas and demolished construction sites have also been proper for urban design. These areas have the potential of building new structures and giving different functions. New buildings can also promote the development and recognition of the site under the condition that they will be compatible with the historical structures and not become prominent. When the issue is design, the port has the potential to contribute Liman Arkası district's development with an appropriate approach and designing. Commercial port is seen as problematic for the site; however, it should not be forgotten that it makes a great contribution to trade development accordingly economy of the city. Thus, the potential could be taken in good part and increase with probable changes.

The building stock in the study area has also promising as well as the open areas. Built-up areas consisted of empty heritage buildings have the potential of "reuse". Residential units, warehouses, factories, and industrial complexes as part of the cultural and industrial heritage have been easy to be reused than constructing new buildings. Also, reuse is advantageous in terms of economy and sustainability than new construction. With regard to reuse, Sümerbank complex, Şark industries complex, and Electric plant have been large industrial structures while empty housing, commercial, and storage units have the potential of re-functioning in a smaller scale.

The historical and modern structures have existed together in the site as already mentioned. These buildings have been built starting from the 19th century and the structuring has continued to the 21th century with different functions. Therefore, the buildings of various periods and assorted uses within the site have the potential for people to "understand the historical development" of Liman Arkası district.

In brief, urban transformation and reuse are the basic potentials within the study area in different sites and structures. Liman Arkası district with its various architectural characteristics and location has a considerable potential to develop as the transition zone between the old and new settlements. Tourism facilities as cultural and industry could be possible functions supporting the development. Last but not least, the site has the potential in itself to tell the urban development through its history.

4.4. Evaluation

In this chapter, the assessment of the study area was done over the values, problems, and potentials. This assessment is necessary to understand the significance, to find a way out for the issues, and to appreciate the site by suitable methods. Specified values, problems, and potentials will also play an important role to determine the conservation principles.

In brief, the area has group of values as social, physical, economic, and natural. Assessing the values in the study area was hold in a general manner by referring the previous studies on value assessment for cultural heritage. In this respect, the area has historical value at first with its industrial plants, warehouses and residential units. The area, as an industrial complex with its components, has been taken part in the memory of residents and workers, which brings commemorative value. The history of the site goes to the 19th century with the traditional buildings having age value, some of which are still in use today as the structures of railways. All of these industrial heritage, built in the 19th and the 20th centuries, have the connection between the past that shows the development of the area and provides data about the industrial movements. Also, functional variety has been precious for the site as continuing through its history.

As physical values, some of the industrial plants have representative and rarity values while warehouses and residential units have integrity value, both of which are significant for the site. It was mentioned that most of the structures of industrial heritage are empty, bringing use value for the district as part of economic value.

Following, problems of the site were determined in various scales. Settlements are not connected socially, functionally, and physically in the urban scale. Ege district also creates the isolation for the site, to mention at this point. The port, on the other side, causes an obstacle for the perceptibility of the site in a physical way and hindered the physical development.

The characteristics of neighboring districts are different thus a conflict arises between the old and new districts. New city center demand creates the pressure on the study area. There are also negative effects of being in a estimable location, which could be crowd, traffic and pollution. On the other side, Liman Arkası district stands on the background as industrial heritage within the cultural heritage of the city. To continue with the heritage, maintenance and conservation is the main issue in the context of this thesis. Moreover, disuse of the buildings is quite significant problem, which causes the danger of disappearance as an unwelcome consequence with respect to preservation. The equipments and means of production were already vanished. On the other hand, the implementations are problematic. First of all, the restoration implementations affected some structures in a negative way. Facades and interior organization were altered. Many wrong approaches damaged the original features thus the authenticity of the structures was disappeared. On the side of the new structures, shanty buildings and large mass proportion are the main issues, which are not compatible with the historical pattern.

The functional variety was mentioned; however, the functions within Liman Arkası district are not appealed to people in general. Ownership and financial problems are also crucial for the site, which are impediment for urban transformation. Lastly, the approaches within the site are trouble due to not being integrated.

To sum up the potentials, the area is advantageous to be a settlement developing as a city center. Also, tourism potential as cultural and industrial is crucial. The area

could develop as a transition site due to its location between the old and new districts. Besides, urban transformation and reuse are significant potentials for the area. The study area has consisted of many sites and structures to be evaluated in such a way. Last but not least, Liman Arkası district with all of its characteristic has the potential of revealing the historical development in itself.

In brief, it is seen that the site is quite significant with its values of various scopes. However, the problems of the site could block to understand the values. Values and problems of the site interlace that one could be a value and problem at the same time, also the potential. For instance, unused heritage buildings are in very bad condition due to the lack of regular maintenance; however, these structures have use value with adaptive re-use potential. This is not just the case for the historic structures. Wrong implementations, for example, caused the loss of the original features of the structures, which prevents to understand both the structure and the site. The structures have the potential to be revealed as showing their authenticity, rarity and integrity values when this problem is encountered. Additionally, functional variety, continuing through its history, is valuable but these functions are not appealed to people in general. Architectural variety is also valuable with the potential to tell the historical development of the site from the ^{19th} century to the ^{21th} century. The port, on the other side, could be seen as problematic that it creates a boundary for the site in terms of the relation with the water as it was in the history. Also, it is an obstacle in some way for the perceptibility of the site. However, the port is valuable due to the fact that it brings the identity for the district by being called together. Moreover, it continues the relation between the site and the port as it happened previously with the historical port.

As conclusion, values, problems and potentials are in relation with each others. It is crucial to overcome the problems by being aware of the values and the potentials of the site.

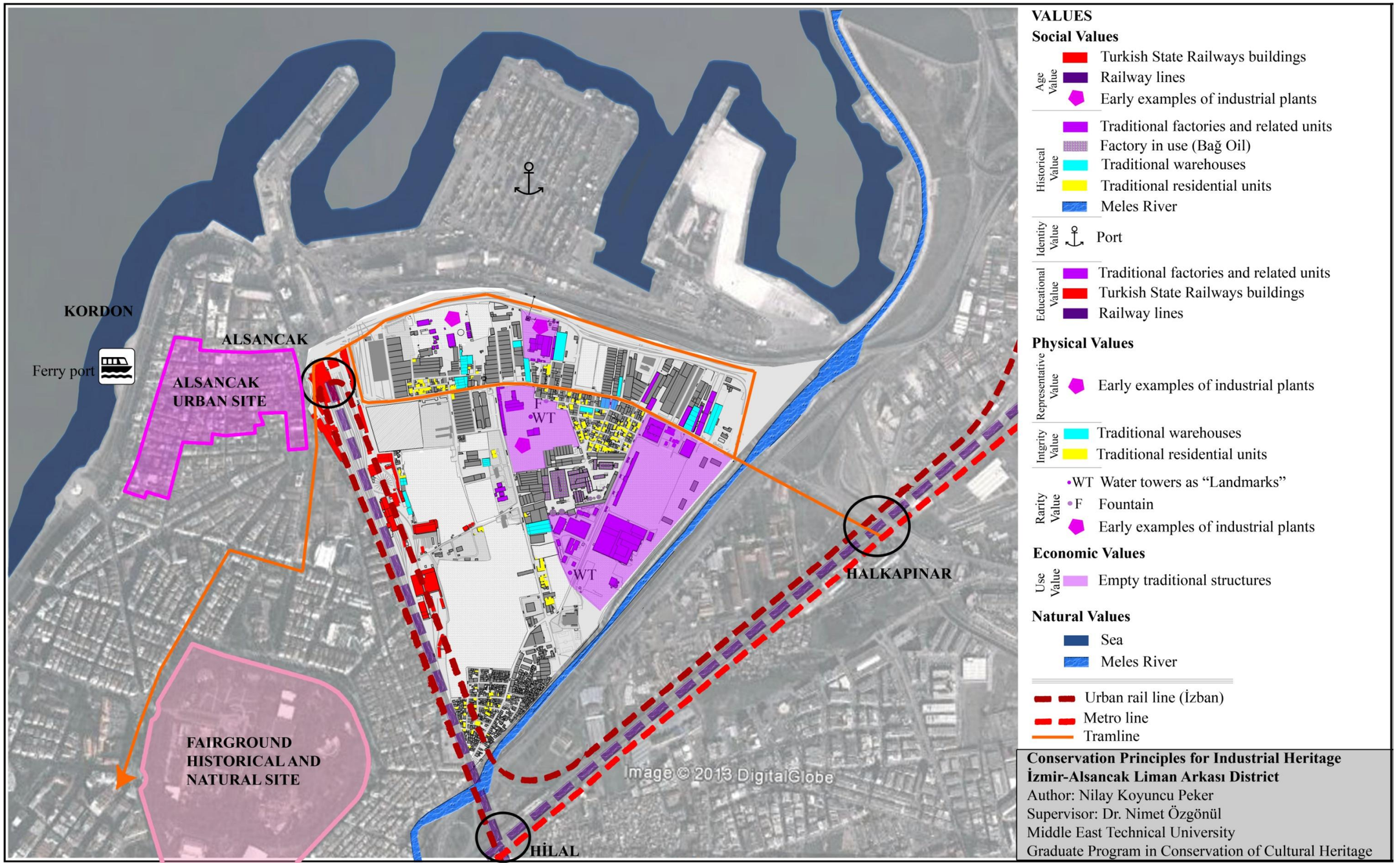

Figure 4-8: Values in the study area

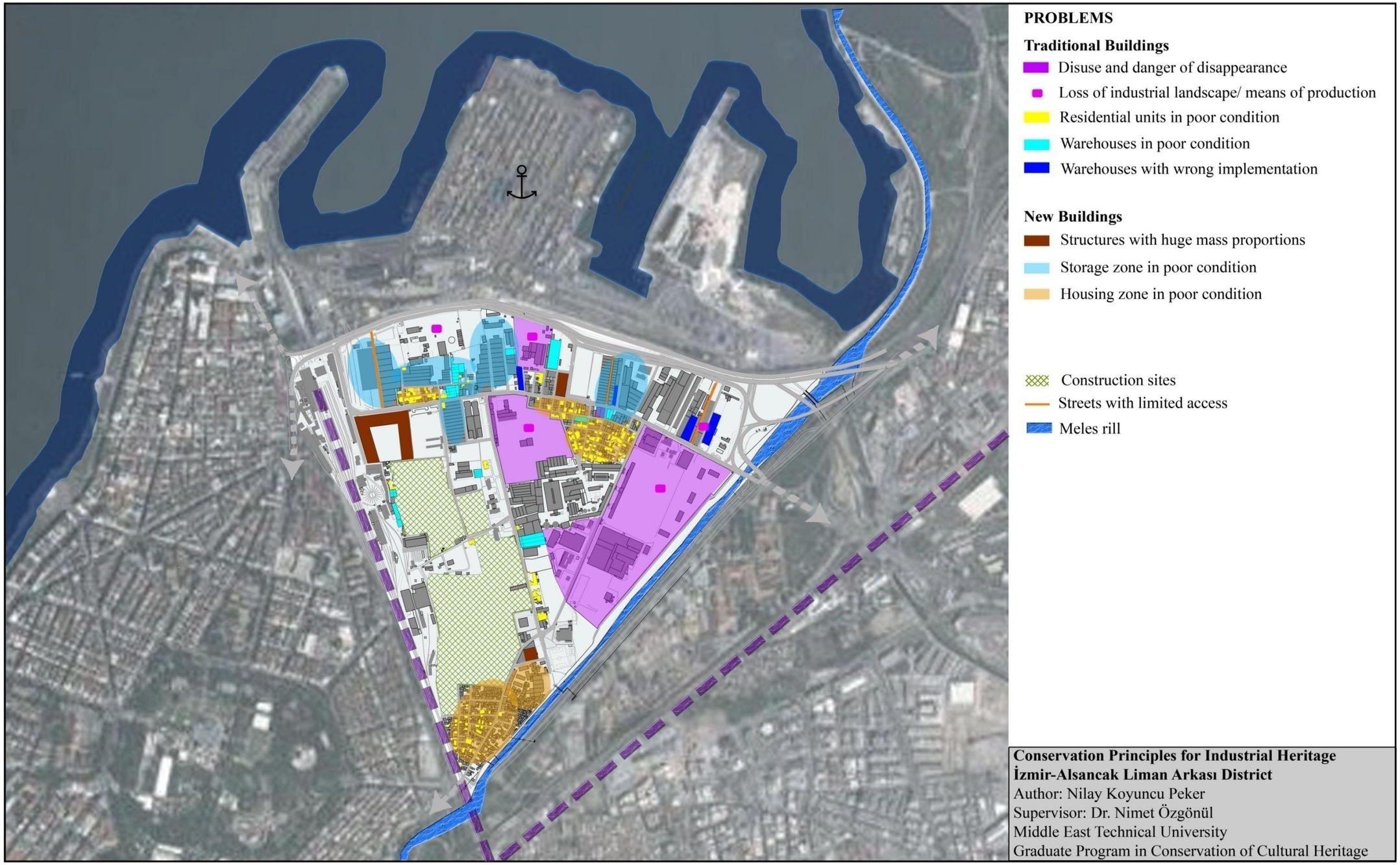

Figure 4-9: Problems in the study area

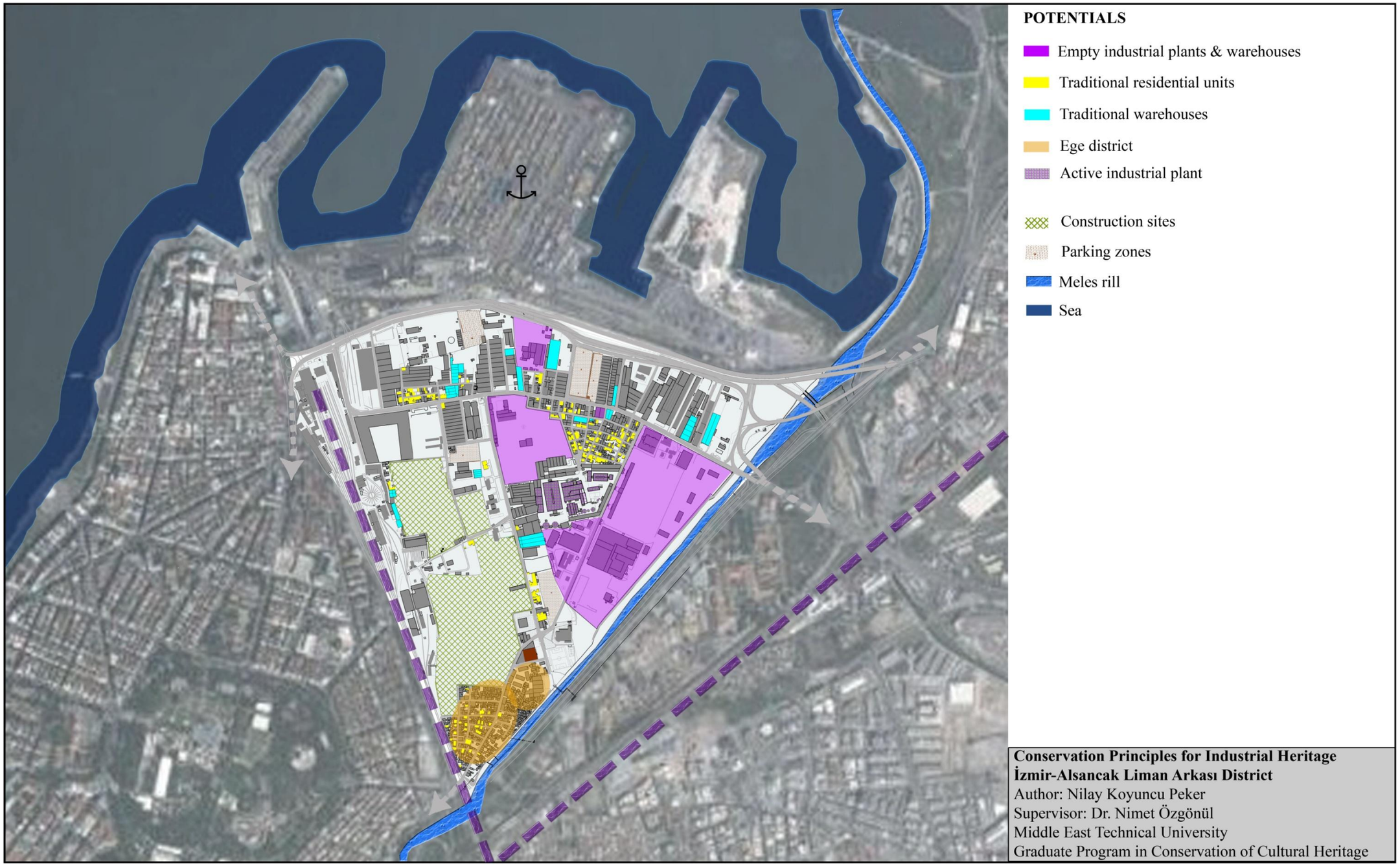

Figure 4-10: Potentials in the study area

CHAPTER 5

CONSERVATION PRINCIPLES FOR İZMİR-ALSANCAK LİMAN ARKASI DISTRICT

Alsancak Liman Arkası district started to be developed in the 19th century and continued its growth in the 20th and 21th centuries. The site consists of different structures with various architectural characteristics. Evolved with the small scaled settlements, the land initiated to be settled as the expanding of the residential district in Punta. Following with the construction of railways, the development mostly changed into the industrial plants than the residential units since the railway line created a physical boundary for Punta section. In the beginning of the 20th century, the area mainly included industrial plants, warehouses, and houses of workers and minorities. Darağacı, the name in the 20th century, expanded with this functions yet the community changed during the years. Also, new industrial plants were settled in the area and the site mostly completed its infill. Many warehouses and a few factories disappeared in time and new structures occupied their places, both as qualified and unqualified buildings.

Liman Arkası, the current name of the area, has survived with the changes during the time. Today, the site mainly includes unused industrial plants, an active factory, warehouses, residential and commercial units, public buildings and open areas. Liman Arkası district has both historical and new structures. However, the site has been suffering from the neglect and disregard for a while thus the structures, especially having historical values, are in danger of disappearance. One of the most important issues is that not to understand the significance of the district in a whole. The value assessment was done for the very reason. The problems, on the other side, were determined in order to find possible solutions to overcome. Also, the potentials were examined to appreciate the site properly.

In this chapter, conservation principles will be specified in the light of this assessment. Industrial heritage will be of top priority while defining the principles. Industrial plants, warehouses and residential district will be held as part of the industrial heritage, as it should be. As frequently cited, they emerged with the industrial facilities thus they cannot be thought separately within the site. At this point, the definition of industrial heritage in the Nizhny Tagil Charter (2003) could be referred as handled in the second chapter. According to the definition, industrial heritage includes "the remains of industrial culture" and these remains involve 'buildings and machinery, factories, warehouses, transport and all its infrastructure with related functions as housing, religious and education' concerning the site. In this respect, registered industrial buildings as Gasworks, Electric Plant, Şark Industries Factory, Tile Factory, Alcohol Factory, Flour Plants and Sümerbank Complex; warehouses; and residential units are part of industrial heritage with their historical value. Additionally, unregistered Bağ (Gomel) Oil Factory could be counted as industrial heritage since not only the remains of past structures but also "ongoing industrial processes of production" are part of the heritage as mentioned in Dublin Principles (Joint ICOMOS- TICCIH, 2011).

Indeed, the principles for the conservation of industrial heritage have already been stated in general terms with the Dublin Principles as;

I. "Document and understand industrial heritage structures, sites, areas and landscapes and their values
II. Ensure effective protection and conservation of the industrial heritage structures, sites, areas and landscapes
III. Conserve and maintain the industrial heritage structures, sites, areas and landscapes
IV. Present and communicate the heritage dimensions and values of industrial structures, sites, areas and landscapes to raise public and corporate awareness, and support training and research."

The principles defined by the international charters are substantial to assign the general approach yet the conservation principles should be determined particular to

the site. TICCIH Principles will guide to designate the appropriate conservation principles both for Liman Arkası district in the site scale and the structures in the building scale.

To start with the "documentation", the heritage in the site should be recorded before they disappeared. The measured drawings are generally done in Turkey if there will be an intervention for the structure. There is just inventory studies concerning the registered buildings, which include general features and a few visuals. Köksal (2005) proposed additional information to be in data sheets which will be prepared for industrial heritage. The data sheets should be broadened to include the technological features as "manufacturing trade branch, power source, production process and architecture relation" (Köksal, 2005, p.158).[154] It is necessary to complete the records of visual, written, and auditory including drawings, photographs, video recordings, and oral history in order not to lose the information. Archives, residents and former workers could be consulted for documentation of the industrial plants and the related buildings. In this respect, documenting the structures with machinery, equipments and intangible parts is essential. Most of the equipments were already lost thus it is required to protect the survivors.

After the documentation, it is needed to" understand the significance" of the site with all of its components. The research on urban history and value assessment were done within the scope of this study with the aim of recognizing and appreciating the site. A similar study is necessary to be conducted by interdisciplinary approach. All of the stakeholders and the community should be convinced about the significance of the structures and the site in general.

Documentation before disappearance is important as mentioned above yet the "effective protection" is the foremost. The cultural and natural heritage have been under the legal protection with the act no:2863 yet the sites and/or structures need

[154] Köksal (2005) prepared a number of questions to be answered in data sheets for industrial heritage. These were formed with regard to industrial buildings in İstanbul and she suggested the sheets should be adapted according to the city. Further information could be reached from the thesis.

particular protection measures. These measures should provide the "significance, integrity and authenticity" of the site (Joint ICOMOS- TICCIH, 2011). Conservation Board has an important position in this regard hence the board should ensure the protection in collaboration with related institutions and individuals. Disused and active industrial sites or buildings should be behaved differently. "Machinery, industrial objects and related records" should be protected (Joint ICOMOS- TICCIH, 2011).

Protection policies are essential to advance a legal framework. "Conservation and maintenance" ways should be required with these policies. To carry on the original function or to give an adaptive use are the most preferred ways. If the choice is new use, it should be respectful to "material, components and patterns of circulation and activity" (Joint ICOMOS- TICCIH, 2011). Besides, there have been four conservation methods for industrial heritage as mentioned in the second chapter. These methods were 'preserving as it is with minimum intervention, conserving with a function close to the original, conserving with the museum function, conserving with an adaptive re use' as referred to Höhmann (Köksal, 2005). On top of that, the physical interventions should be considerate and reversible as stated in the principles (Joint ICOMOS- TICCIH, 2011). The priority is to conserve the site or structure with all of its components and in-situ by preventing depreciation. Also, the continuity of the maintenance is a must whatever the conservation method is.

When the information value of heritage was lost with an intervention as well as other values, the recording comes into prominence again. At this point, the significance should be presented with other ways. "Presentation" of industrial heritage has been already important for conservation. These sites and structures should be adopted both by public and the institutions. Herein, the presentation is quite substantial to create "public and corporate awareness" with regard to the significance. The history, production process, and technological improvements should be narrated. The awareness is essential to develop the appreciation for industrial heritage.

"The aim of conservation is to safeguard the quality and values of the resource, protect its material substance and ensure its integrity for future generations." (Feilden & Jokilehto, 1998, p.14)

To sum up in a broad sense, conservation principles for Liman Arkası district could be listed as:

- The area should be conserved with an "integrated approach" comprising all tangible and intangible heritage, unregistered but architecturally qualified structures, and social aspects. The integrated approach, concerning the site, should be realized via "value assessment". The architectural variety showing the urban development of the district should be preserved. The integrated approach, concerning the people, should be realized by "joining all political and technical forces and bringing together the skills of the related professions in an interdisciplinary collaboration, under the leadership of a conservation-conscious body" (Feilden & Jokilehto, 1998).
- The related institutions should work in cooperation for conservation and management of the site as part of the integrated approach. Conservation Board, Metropolitan and Konak municipalities, Chamber of Architects and City Planners should be included. Additionally, property owners and tenants as the users, or a representative for these people, should be incorporated into the process. How important the relation between the users and the decision-makers is, was seen in the case of the 798 Art District in China.
- The interdisciplinary team should be constituted particular to the conservation of the site in collaboration with TICCIH Turkey[155]. This team should include representatives from the related institutions as mentioned above. Besides, academicians and specialists studying in this field should assist the team. TICCIH Turkey should assign a "conservation-conscious

[155] TICCIH Turkey has not been working actively as mentioned in the second chapter. The organization should come into power and bring into connection with other national and international organizations for the sake of industrial heritage in Turkey. It is quite significant to have a central unit.

body" supervising the team as happened in the transformation of London Docklands with the LDDC.

- The "management plan" should be prepared for the site since Liman Arkası district has many stakeholders. Strategies should be determined. Short-term and long term work plans should be prepared according to the priority based on the assessments. The development framework and annual reports produced by the LDDC could be a model to adapt Liman Arkası, as affirmative sides of the transformation of London docklands.
- The documentation of the site should be done including the missing measured drawings, photographs, videos, and oral history. Former residents, users and workers of the industrial facilities should be included to collect the data. The documentation study could be announced via various communication ways so people having the data could support the study.
- The records should be gathered together in an archive. The archive should be open to public. An online network should be formed as ERIH did. This network could be connected with other industrial heritage within the city.
- The significance of the area should be comprehended priory and it should be represented in national platforms to raise the awareness. Universities, trade associations, municipalities and conservation board should assume the publicity of the area. These studies should not be limited in the academia. Property owners and decision-makers should definitely understand and agree about the significance.
- The protection measures should be determined covering the integrity of the site in general; however, there must be immediate precautions to conserve the existing buildings without lacking anymore.
- Liman Arkası district in a whole should be integrated with other urban, historic and archeological sites within Konak first and the city afterwards. "İzmir-History Project" could be developed by linking this industrial site with historical value to other sites.[156]

[156] The sites in Konak district could be seen on Appendix C.

- The financial support should be provided for the conservation and transformation of the site. The municipalities have not enough financial power so the property owners should take the responsibility. Besides, Ministry of Industry and Technology, Aegean Region Chamber of Industry, İzmir Chamber of Commerce should financially support the conservation studies.

In more detailed;

❖ To contribute the documentation of the site:

- Şark Industries Complex, Sümerbank Complex and Electric Plant should be documented with the measured drawings, photographs, and historical research showing the alterations.
- Şark Industries and Sümerbank Complexes, and their remained machinery, if exist, should be recorded. The destroyed buildings of the complexes should be indicated as part of the design.
- The original production process should be represented in the industrial plants as Gasworks, Flour Plants, Alcohol and Tile Factories that have already been reused. An appropriate display could be articulated to the structure, including the information of the original function and disappeared equipments.
- The missing or existing elements of industrial landscape should be documented in Gasworks, Electric plant, Şark Industries complex and Sümerbank complex.

❖ To provide the conservation and maintenance of the site:

- Large scaled industrial facilities as Electric Plant, Şark Industries Complex and Sümerbank Complex should be assigned adaptive use. While assigning the new function, the information on production process should be incorporated into the design. Regular maintenance could be provided with the new usage. The case of the Minneapolis is powerful with its re-used

flour mills, paying attention to the conservation of the building and machinery first.

- Restitution studies should be done for Sümerbank complex since it was dramatically damaged. Existing structures should be avoided for further destructions.
- Precautions should be taken for the conservation of Electric plant and Şark Industries complex not to be demolished as Sümerbank complex.

- Traditional and new structures should be distinguished since the traditional ones cannot be perceived due to the wrong implementations. After determined, they should be cleaned out the additions that harmed the original features. This is valid mostly for the warehouses and some of the residential units.
- Warehouses and houses should be given the original or appropriate new functions. The features of these structures have been similar in themselves thus the architectural characteristics should be revealed to sustain the integrity value.
- Regulations and risk strategies should be provided for Bağ Oil Factory as the only active industrial plant within the site. It is valuable to continue the original function for an industrial facility thus it should be protected with taking necessary precautions.
- Implementations should be followed carefully. Any intervention disarranged the original features of the structures should be prevented and previous interventions should be reversed favorably.

❖ To improve the accessibility of the site:

- The physical disconnection of the site with neighboring districts should be overcome all the way. Liman street is the most suitable one to penetrate into the site. The minor streets contributing links between Liman and Şehitler streets should be well organized. The two streets next to Tariş Head Office

and Flour Plants should be open to public. Security precautions for the buildings can be solved anyway. Moreover, there is a long line through Liman street due to the periphery of Gasworks and Electric plant thus another minor road should be opened between two industrial plant. West and east sides of the site have long boundaries. In this respect, Akıncılar Street providing access from the south in Ege district and near footbridge should be rehabilitated as the only existing connection. The interrupted street between Sümerbank and Meles should also be linked through the river and revitalized.

- Street pattern should be revealed that one can easily find his way within the site. Streets should be well organized and rehabilitated since many of them are out of condition. Particularly, the streets linking the site with main roads and the streets located between the large parcels are of primary importance.
- The bicycle road through the shoreline should be connected in the port section. It can be designed together with the port planning, next to Liman street. Besides, a bicycle road could be arranged within the site.
- Open areas of car parking and unidentified sites should be organized according to the need of the site. Currently, there are three car parking area located fairly within the site. These should be designed with landscape elements.

❖ To contribute the recognition of the site, which also to tell the significance:

- The documentation of the buildings should be exhibited. The drawings and the old photographs of the traditional industrial plants could be displayed on the periphery of the structures or within the landscape.
- Old photographs of the streets could also be used in the related points to raise the awareness.
- Informative signboards should be designed for the industrial plants including the data of title, original function, construction year, and so on.
- The boundaries of the large parcels should be distinguished as part of the design. The long garden wall of Şark Industries Complex, particularly on the residential district side, should be indicated. The original entrances of

Sümerbank Complex should be emphasized. The lodgings of Sümerbank should also be expressed that they were part of the complex.

- Traditional structures -warehouses- which have been still surviving should also be indicated with the information of original titles, referring to Pervititch.
- Old street names, referring to Pervititch, could be used as part of the design and presentation to keep up the historical value although some of them were disappeared within the parcels.
- The tramline in Şehitler street is valuable as reflecting the trace of the historic line. This historical relation should be indicated.
- Guidance signboards should be designed through the industrial plants since the site consists of dense built-up areas. Particularly, the entrances of Electric Plant and Bağ Oil Factory are reached through the residential units.
- Obtrusive signboards should be removed from the facades and any signboard in the area should be designed with a common approach. They should not block the perception of the structures.
- Empty building stock and open areas should be used for the general presentation of the area. Touristic and educational facilities could be organized. Industrial tourism could be a part of it. Workshops could be done to integrate people with the industrial heritage.

    - Gasworks is already appropriate to organize workshops.
    - Electric Plant could be used in this context with its large mass according to its new function.
    - The buildings and the extensive landscapes of Şark Industries and Sümerbank Complexes are also suitable to organize events contributing industrial tourism.
    - Idle warehouses could be part of the organizations. Particularly the ones stood along the Şehitler street are attractive due to their location.

- Visits should be organized for people to see the production process in Bağ Oil Factory, which will help them to accept the industrial heritage.

- The large industrial plants and their components have been already landmarks for the site. Two water towers and the chimney of the Gasworks are tall structures contributing the site and raising the awareness. These should be remained visible thus new structures should not be built taller than these as blocking the site.
- The missing industrial landscape of Gasworks, Electric plant, Sümerbank and Şark Industries complexes should be represented.
- The place of the Meles river in the historical memory should be indicated within the rehabilitation project since most of the tributaries were lost and the rill is still located next to the site. Informative signboards should be prepared for Meles as well to make the visitors remember the long history contributing the city. The street between the river and Sümerbank, as mentioned above, could be suitable for landscape design along with the river.

❖ To rehabilitate of the new structures:

- New structures which are compatible with the traditional ones in terms of mass proportions should be physically improved.
- Building codes for the new structures should be determined compatible with the historic ones. New projects for the construction site could be attractive for the transformation of the area yet the project should be respectful to the historic fabric.
- Ege district should be rehabilitated with a participatory planning having an appropriate design that cares the existing physical and social structure. The users and the social value of the district should not be disregarded.
- The port should be re planned with an appropriate design in order not to obstruct the physical perception of the site.

In summary, the conservation of industrial heritage has become crucial increasingly. The concept and the brief history of industrial heritage were examined in this thesis to comprehend the main issue. The conservation methods were covered to learn how to deal with these structures or sites. Case studies were researched to see

various approaches from different places, which was enlightening for the study area. Also, the attitude of our country was viewed in legal and administrative frameworks. All of the literature survey helped to improve the background on the industrial heritage and other related concepts together with the conservation measures.

The main aim of this thesis was to conserve the industrial heritage in Liman Arkası district before they disappeared, and to emphasize the significance of the site. In this respect, the general characteristics and urban history of the area were studied in physical development, planning, and conservation fields to understand the significance. The value assessment of the site also supported this. Determining problems and potentials of the site was necessary to bring the decisions.

In the end, all of the studies together helped to develop the main conservation principles defined above. In brief, the conservation and maintenance of industrial heritage within the site are in direct proportion to the understanding the significance of the site and the positive effects of the transformation. The property owners, decision makers, and investors could be convinced more easily after raising the awareness. When the area is handled with an integrated approach and participatory planning, the successful transformation, and re used examples could be adopted as a model which helps Liman Arkası district to develop. Legislation problems and overlong implementation processes are still existing; however, it is achievable to keep the conservation and survival of the district by paying attention to these issues.

Lastly, it is crucial to state that to develop the conservation principles for the industrial heritage needs much more detailed studies and it requires a multidisciplinary work. It is beyond the bounds of possibility to complete all the essential researches within the scope of this thesis. Thus, the future studies should be expanded in the direction of mentioned principles.

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APPENDIX A

INTERNATIONAL COMPETITION OF URBAN DESIGN IDEAS FOR İZMİR HARBOR DISTRICT/ WINNER PROJECTS

Figure A-1: Jochen Brandi, 1st Prize (*Yarışma*, 2002)

Figure A-2: Bünyamin Derman- Dilek Topuz Derman, 2nd Prize (*Yarışma*, 2002)

Figure A-3: Ertur Yener- Erdoğan Elmas- Zafer Gülçur, 3rd Prize (*Yarışma*, 2002)

APPENDIX B

CONSERVATION BOARD DECISIONS

Table B-1: List of immovable cultural and natural heritage (Compiled by the author according to the data from İzmir Conservation Board of Cultural and Natural Heritage with Decree date and no: 8.1.1998-7003 and General Directorate of Land Registry and Cadastre)

CATEGORY	BLOCK-LOT	ORIGINAL FUNCTION/ CURRENT FUNCTION	CURRENT OWNERSHIP	EXPERT'S REPORT
1-FORMER GASWORKS Single and group trees	281-3535-43,44	Gas factory/ Service	İzmir Metropolitan Municipality	
2-FORMER ELECTRIC PLANT Eucalyptus trees(2)	281/2-3535-6	Energy power plant/ Transformer	İzmir Metropolitan Municipality	
3-FORMER ŞARK INDUSTRIES COMPLEX Single and group trees	285-3169-147,129, 153,212	Textile Mill/ -	Private (Şark Industries Company)	Will be totally conserved
4-STORE	281/2-3535-1,5	Sale & storage/ Manufacturing & sale	Private (Yorsan Glass Trade)	May be unregistered
5-STORE	281/2-1437-106,107	Sale & storage/ -	Private	Unnecessary to conserve
6-STORE	283-1409-1	Sale & storage/ Entertainment venue	Private	Partially conserved
7-STORE	287-1393-4	Sale & storage/ Service	Private	May be unregistered
8-FORMER TILE	287-1393-	Manufacturing	Private	Unnecessary

FACTORY	17	/ Commercial		to register and conserve
9-TARİŞ ALCOHOL FACTORY	287-1392-4,7	Manufacturing / -	Private (TARİŞ)	Unnecessary to register and conserve
10-FORMER FLOUR PLANT II	287-1391-1 & 1392-1	Manufacturing / Service & commercial	Private	May be unregistered
11-FORMER FLOUR PLANT I	287-1391-2	Manufacturing /Education	Foundation (Yaşar Educational and Cultural Foundation)	
12-STORE	286-1406-10	Sale & storage/ Service	Private	May be unregistered
13-STORE	284-1412-1	Sale & storage/ Storage	Private	May be unregistered
14-STORE	284-1420-8	Storage/ Service	Private	
15-HOUSING	281-3535-37	Residential/	Private	May be unregistered
16-HOUSING	281-3535-36	Residential/	Private	May be unregistered
17-HOUSING	281-3535-35	Residential/	Private	May be unregistered
18-HOUSING	281-3535-33	Residential/	Private	Unnecessary to register and conserve
19-HOUSING	281-1441-13	Residential/	Private	Unnecessary to register and conserve
20-HOUSING	281-1440-13	Residential/	Private	Unnecessary to register and conserve
21-HOUSING	281-1440-14	Residential/	Private	Unnecessary to register and conserve
22-HOUSING	281-1440-15	Residential/	Private	Unnecessary to register and conserve

23-HOUSING	281-1441-21	Residential/	Private	Unnecessary to register and conserve
24-SHOP	281-1440-4	Commercial/ Commercial	Private	Unnecessary to register and conserve
25-HOUSING	281-1440-3	Residential/	Private	Unnecessary to register and conserve
26-HOUSING(Triplet) Poplar trees(3)	281-1432-5	Residential/	Private	May be unregistered
27-HOUSING + SHOP	280-1446-3	Residential & commercial/ Commercial	Private	
28-HOUSING	280-1446-2	Residential/	Private	Unnecessary to register and conserve
29-HOUSING	281-3535-12	Residential/	Private	May be unregistered
30-HOUSING	281/2-1438-121	Residential/	Private	Unnecessary to register and conserve
31-PİYER VERBEK FOUNTAIN	285-3169-212			
32-HOUSING	284-1422-9	Residential/	Private	May be unregistered
33-SHOP	284-1422-7	Commercial/ Commercial	Private	Unnecessary to conserve
34-HOUSING	284-1421-3	Residential/	Private	May be unregistered
35-HOUSING	286-1402-6	Residential/	Private	May be unregistered
36-HOUSING	286-1403-9	Residential/	Private	Unnecessary to conserve
37-HOUSING	286-1405-13	Residential/	Private	Unnecessary to register and conserve
38-HOUSING	286-1399-10	Residential/	Private	Unnecessary to register and conserve

39-HOUSING	286-1404-1	Residential/	Private	Unnecessary to register and conserve
40-HOUSING	286-1397-11	Residential/	Private	Unnecessary to register and conserve
41-HOUSING	284-1415-3	Residential/	Private	Unnecessary to register and conserve
42-HOUSING Oil palm	284-1419-1	Residential/	Private	Unnecessary to register and conserve
43-HOUSING	284-1418-4	Residential/	Private	Unnecessary to register and conserve
44-HOUSING	284-1420-2	Residential/	Private	Unnecessary to register and conserve
45-LIGHTING POLE	287-1393-3 (in front of)			May be removed if similar does not exist

Table B-2: List of immovable natural heritage. (İzmir Conservation Board of Cultural and Natural Heritage, Decree date and no: 8.1.1998-7003)

CATEGORY	BLOCK- LOT
1-GREEN AREA WITH IRONWOOD TREE (17 and a palm)	281-3535-85
2-EUCALYPTUS TREES(5)	281-3535-16,24 (in front of)
3-MULBERRY TREE	281-1441-20
4-OIL PALM	281-1441-8
5-IRONWOOD TREE	281-1441-2
6- OIL PALMS(4)	281/2-3535-2
7-IRONWOOD TREES(2)	284-1413-4
8-GREEN AREA OF FACTORY (Pine trees, oil palms, mulberry trees, eucalyptus trees)	288-2939-182 & 285-3169-177,179
9-GREEN AREA OF PUBLIC ESTABLISHMENT (Eucalyptus trees, oil palms)	280-1448-1,9

CONSERVATION BOARD DECISIONS

Table B-3: Conservation Board Decisions (Compiled by the author according to the assizes of İzmir Conservation Board of Cultural and Natural Heritage)

YEAR	BLOCK- LOT	BUILDING CATEGORY	OWNERSHIP	REQUEST/ SUBJECT	DECISION
1998	1391-2 *	Flour plant I	Yaşar Educational and Cultural Foundation	Restoration project for the use of museum	√
1999	3535- 6 *	Electric plant	TEDAŞ		-Investigation for the fire -Restoration Project -Maintenance
2000	1391-2 *	Flour plant I	Yaşar Educational and Cultural Foundation	Construction permit	√
2001	3535-46	Alsancak Police Station	Treasury (Dedicated to Police Headquarters)	Crown molding for the ceiling	√
					Registration
	2939-182 & 3169-177, 179 *	Sümerbank Complex	Sümer Holding A.Ş. İzmir Textile Industrial Enterprise		Registration
					Conservation of the means of production within the industrial archeology
				Passage of title to İzmir Provincial Private Administration	√
	1440-1,26	Residential & Service (next to registered parcel)	Private	Land use after the destruction	‖ (consideration of municipality)

2002	2939-182 & 3169-177, 179 *	Sümerbank Complex	İzmir Provincial Private Administration	Conveying of a raising machine	√
	1391-2 *	Flour plant I	Yaşar Educational and Cultural Foundation	Modifications in the project	√
	3535-8,11,12, 61, 88,100,122 & 1441-2,3,17	Various		Destruction	√ (after the elevation drawings)
	1446-2 *	Residential	Private	Restoration Project	× (original facade should be conserved)
	3535- 6 *	Electric plant	TEDAŞ	Destruction of sheds	√
2004	1437-98			Destruction	√
	1402-6 *	Residential	Private	Basic Repairments	√
	2939-182 & 3169-177, 179 *	Sümerbank Complex (I, II, III buildings & IV area)	İzmir Provincial Private Administration		-2nd group of immovable cultural assets -Conservation of means of production in the building II -Measured drawings & Restoration Project

	1420-8 *	Service	Private	Renovation of the roof	√ (The material is tile)
2005	1402-6 *	Residential	Private	Removal of the registration	×
	2939-182 & 3169-177, 179 *	Sümerbank Complex (Layout Plan) (water tower & storage)	İzmir Provincial Private Administration	Measured drawings	√ (data sheet of tree species)
	3535-48	Parcel next to Electric Plant	TEDAŞ	Project for transformer station	√
	1391-1 & 1392-22 (prev1) *	Flour Plant II	Private (MSC)	Measured drawings and restoration projects	√
2006	3535-85	Commercial & open area	Turkish State Railways	Rent for commercial activities	× (Planning practice of İzmir Metropolitan Municipality)
	3535-129,137, 139	Open area	Turkish State Railways	The use of car parking	√
	2939-182 & 3169-177, 179 *	Sümerbank Complex	İzmir Provincial Private Administration	Addition of new construction	√ Educational units are proposed to be located at the south of the site / Functioning of registered buildings is appropriate

				Renovation of windows in Bldg. I	√ (with the same construction technique and material)
	3535-44 *	Gasworks	İzmir Metropolitan Municipality	Measured drawings & Restoration Project	‖ (Correction and detailing) -Deformations/ interventions -The use of open areas -Site plan -Specifications of functions -Original space relations
				Restoration project	√ -Urgent conservation precautions -Temporal functions
	3535-42,43		Sabancı Food	Removal of registration	√ -Monumental tree
	3535-146,147	Lodging building & parking lot	Turkish State Railways	Rent	√
	1420-8 *	Service	Private		Removal of unauthorized parts
2007	2939-182 & 3169-177, 179 *	Sümerbank Complex	İzmir Provincial Private Administration	Sale of the means of products	Sufficient number of means of products will be preserved

	3535-85	Various	Turkish State Railways	Destruction of unqualified buildings	√
	3535 (3535)-66,67 (33) *	Residential	İzmir Fig Agriculture Sales Cooperatives	Removal of registration	× -Subdivision of parcels -Natural assets
	3535-44 *	Gasworks	İzmir Metropolitan Municpality	Landscape project	√
2009	3535-46 *	Alsancak Police Station	Treasury (Dedicated to Police Headquarters)	Extensive Repairment	× -Measured drawings/ Restitution/ Restoration project
				Repairment of sewer system	√ -Basic Repairment
	1391-1 *	Flour Plant II	Private (MSC)	Modifications of restoration project and occupancy permit	√
	3535-153,155	(Next to Electric plant)	TEK General Directorate	Destruction & new addition	√ -Demountable addition

	2939-182 & 3169-177, 179 *	Sümerbank Complex	İzmir Provincial Private Administration	Construction of open-air sports facility	√ - According to approved site plan
				Re-functioning of Bldg. I as conference room	√
2010	1421-4	Commercial (next to registered parcel)	Private		‖ The evaluation of unauthorized building by municipality
	3535-66	(next to registered parcel)	Private		‖ The evaluation of approaches by municipality except facades
	1404-1 *	Residential	Private	Removal of registration & destruction	√
	1404-23	(next to registered parcel)	Private	Destruction	√
	7818-1 (prev 2939-182) *	Sümerbank Complex	İzmir Provincial Private Administration	Rent to İzmir General Directorate of State Opera and Ballet	√
	3535-146	Warehouse	Turkish State Railways	Destruction	√
2011	3169-177, 179, 234	Sümerbank Complex (the area of lodging buildings)	İzmir Provincial Private Administration	Registration	x
	1393-4 *	Not defined	Private	Problem of parcel	Rearrangement of plot plan (Lack of 1/1000 plan)

2011	1392-22 (prev1) *	Flour Plant II	Private (MSC)	Modification of restoration project	√
2012	1391-1 & 1392-22 (prev1) *	Flour Plant II	Private (MSC)	Rebuilding of the original closed bridge between the buildings	√
2013	7818-1 (prev 2939-182)	Sümerbank Complex Educational Units	İzmir Provincial Private Administration (dedicated to the Provincial Directorate of National Education)	Request of wire fence	√ Under the control of the municipality
2014	7818-1 (prev 2939-182) & 3169-177,179 *	Sümerbank Complex	İzmir Provincial Private Administration	Wrecking of building III poses a danger	- Taking precautions not to destroy other structures and loss of life -Denunciation for wrecking -Reconstruction project of building III
2015	3169-177,179 *	Sümerbank Complex (Water tower)	İzmir Provincial Private Administration	Removal of water tower that may damage the environment	X Repair of the water tower according to the measured drawing not to be disappeared
2015	1392-17,18,21	-Industrial (next to Flour plant II)	Konak Municipality	Registration	√ (2. group of immovable cultural assets) -Measured drawings/ Restitution/ Restoration project

2016	1391-2 *	Flour plant I	Yaşar Educational and Cultural Foundation	Measured drawings, restitution etude, restoration project for the use of private museum	√ The drawings and function
	3535-10	Umurbey Mosque		Registration by the İzmir Regional Directorate of Pious Foundations	×
2017	1391-2 *	Flour plant I	Yaşar Educational and Cultural Foundation	Restoration implementation	√
	1445-34	Alsancak Stadium		The relation between the project and registered structures	√
	1384-1,..52 & 1445-2,..7,32 & 1448-15 & 7839-1 & 7840-1	Former Tariş land		Report of registered trees	Conservation of registered trees
				1/1000 plan	‖ (consideration of relevant institutions in accordance with implementation plan in effect and the conservation area boundary)

√ approval ‖ will be evaluated × refusal

* Registered buildings/ parcels.

APPENDIX C

SITES IN KONAK DISTRICT

Figure C-1: Sites in Konak District (Konak Municipality, 2019)