



Learning From the Ruhr: The Case of the World Heritage Site Zollverein as a Model of Conserving Industrial Culture in Turkey

*

Ayşe Duygu Kaçar
Eskişehir Osmangazi University

Abstract

The coal mining and steel industries became determinants of European countries' economic development in the early twentieth century. In fact, these sectors came to represent economic progress and urbanization with the Industrial Revolution. However, beginning in the late 1960s, new energy sources as well as developing information technologies altered the world economy, and heavy industry lost its importance for industrial countries. Nevertheless, these countries, which had led in industry, decided to conserve their industrial buildings and their sites as cultural assets. Germany, one of the leading countries, was the first to conserve an entire industrial region as evidence of a period. The Ruhr region, which was highly urbanized and industrialized in the twentieth century, became the subject of the IBA Emscher Park Project, in a search for solutions for the obsolete forms of modernity. The IBA project was founded in 1988 after hundreds of thousands of workers left the region. Soon after its establishment, in 1989, the project addressed reconstructing the landscape. However, the topography had been largely destroyed with the excavations and in-fills, and there was no way of returning to the original landscape. Accordingly, proposing a new model for this region for the new century became a tool of highlighting the industrial culture and the cultural identity of the region. This paper discusses the Ruhr region, which was pronounced "the Cultural Capital of Europe" in 2010 for its industrial culture, as a model for conserving post-industrial sites in Turkey. The work performed in the Ruhr region between the years 1989 and 1999 and its repercussions today inspired many countries. Therefore, the philosophy of the Internationale Bauausstellung (International Building Exhibition-IBA) Emscher Park Project and its current impacts in the Ruhr is elaborated through the case of Zeche Zollverein in order to shed light on possible transformations in Turkey.

Keywords: *Conservation, IBA Emscher Park, Industrial Culture, Industrial Heritage, Industrial Archaeology, Ruhr, Urban Identity, Urban Memory, Urban Conservation.*



Ruhr'un Öğrettikleri: Türkiye'nin Endüstriyel Kültürünün Korunması İçin Bir Model Olarak Dünya Mirası Zollverein

*

Ayşe Duygu Kaçar
Eskişehir Osmangazi Üniversitesi

Öz

Madencilik ve çelik endüstrileri yirminci yüzyılın başlarında Avrupa ülkelerinin ekonomik kalkınmalarının belirleyicileri olmuştur. Aslında, bu sektörler Endüstri Devrimi ile birlikte ekonomik kalkınma ve kentleşmeyi temsil etmeye başlamıştır. Ancak, 1960ların sonlarından itibaren yeni enerji kaynakları ve gelişen bilişim teknolojileri dünya ekonomisini değiştirmiş ve ağır sanayi endüstri ülkeleri için önemini kaybetmiştir. Yine de, endüstri lideri bu ülkeler, endüstri yapılarını ve onların alanlarını kültürel varlıklar olarak korumaya karar vermişlerdir. Bu lider ülkelerden biri olan Almanya, bütünüyle bir bölgeyi o dönemin tanığı olarak koruma altına alan ilk ülke olmuştur. Yirminci yüzyılda kentleşen ve endüstrileşen Ruhr bölgesi, yüz binlerce işçinin bölgeyi terk etmesinden sonra, 1988 yılında IBA Emscher Park Projesinin konusunu oluşturmuştur. 1989'dan itibaren proje, bu bölgedeki bozulmuş olan peyzajın yeniden yapılandırılmasına odaklanmıştır. Ne yazık ki, yapılan kazılar ve dolgular nedeniyle topografya büyük ölçüde zarar görmüştür ve orijinal haline geri dönüş mümkün olmamıştır. Dolayısıyla, bu bölge için içinde bulunduğumuz yüzyıla yönelik yeni bir model önerisi geliştirmek, endüstriyel kültürün ve bölgenin kültürel kimliğinin altını çizmenin bir aracı olmuştur. Bu makale, 2010 yılında "Avrupa Kültür Başkenti" ilan edilen Ruhr bölgesini, Türkiye'nin endüstriyel alanlarının korunmasında bir model oluşturmasını sorgulamak amacıyla endüstriyel kültürü ile tartışmaktadır. 1989 ve 1999 yılları arasında Ruhr bölgesinde yapılanlar ve sonrasındaki yankıları pek çok ülkeye ilham vermiştir. Bu nedenle, Ruhr modelinin diğer yerler ve politik ortamlar için uygulanabilirliği bu makalenin konusunu oluşturmaktadır ve Internationale Bauausstellung (International Building Exhibition - IBA) Emscher Park Projesi'nin felekesesi ve Ruhr'daki etkileri Türkiye'deki muhtemel dönüşümlere ışık tutması amacıyla Zeche Zollverein örneği üzerinden detaylandırılmaktadır.

Anahtar Kelimeler: Koruma, IBA Emscher Park, Endüstriyel Kültür, Endüstriyel Miras, Endüstriyel Arkeoloji, Ruhr, Kent Kimliği, Kent Hafızası, Kentsel Koruma.

Introduction

Industrial culture that reflects the production and lifestyles of a specific period is one of the urban artefacts that link tangible and intangible dimensions to the present. Accordingly, the Ruhr experience is an effective example of how cities (or regions in this case) serve as the collective memory for their societies, such that the collective memory affects the transformation of the urban space. Consequently, this paper discusses the transformation of formerly industrial sites into cultural spaces and new living environments in the Ruhr region, to shed light on the possible future uses for industrial sites in Turkey from the perspective of industrial culture. Therefore, how the Ruhr model can be adapted for other places and political settings is the subject for this paper and the philosophy of the Internationale Bauausstellung (International Building Exhibition - IBA) Emscher Park Project and its current impacts in the Ruhr will be elaborated through the case of Zeche Zollverein to shed light on possible transformations in Turkey.

Conserving Industrial Culture in Germany and the World

In his book *La Mémoire Collective* (1950), Halbwachs declared that space is an important part of collective memory for receiving and reflecting the imprint of groups and for group interactions. He observed that physical environments retain groups' imprints and that collective memory is a socially constructed notion rather than a given concern (1980, pp. 128-130). To him, "Each aspect, each detail, of this place has a meaning intelligent only to members of the group, for each portion of its space corresponds to various and different aspects of the structure and life of their society, at least of what is most stable in it" (Halbwachs, 1980, p. 130). Therefore, inhabitants as the urban group are in continuous contact with the material aspect of the city and thus, "the collective memory of these groups is based on spatial images" (Halbwachs, 1980, p. 133). These arguments of Halbwachs found response in international media and, in parallel to his statements, industrial culture was first considered a part of collective memory in European countries in the 1970s. In 1973, the Association for Industrial Archaeology (AIA) was founded in Great Britain, although the term "Industrial Archaeology" was defined in 1955 (Bu-

chanan, 2014, p. 2).¹ While the first international meeting on conserving the industrial heritage was held in Ironbridge, Britain, in 1973, it was followed by the Bochum, Germany meeting in 1975.² Therefore, Germany was one of the first countries in the world to concentrate on conserving industrial culture. Scholars from academia, volunteers and nongovernmental organizations from Germany as well as other countries founded the International Committee for the Conservation of Industrial Heritage (TICCIH) in 1974. In accordance with that, the International Council on Monuments and Sites (ICOMOS), which was established in 1965 after the Charter of Venice in 1964, and the United Nations Educational, Scientific and Cultural Organization (UNESCO) considered industrial heritage following the work of TICCIH and published international documents on the subject; it is mentioned in the Council of Europe and Cultural Heritage 1954–2000 that the technical, cultural and social values of industrial heritage are important parts of collective memory and European identity (Ballester, 2001, p. 205). In 2003, industrial heritage was defined by the Nizhy Tagil Charter as “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.”³ Consequently, in 2008, ICOMOS declared seven principles:⁴

1. Public awareness should be increased for physical and intellectual access and understanding of the conservation sites;
2. The significance of the sites should be documented through scientific and scholarly works;
3. The history and social, cultural, and political aspects of the site should be evaluated within its own context and setting. This should include all groups that contributed in all periods with intangible elements such as

¹ Please see *The Amateur Historian* by Michael Rix and *World Industrial Archaeology* by Kenneth Hudson.

² <http://ticcih.org/activities/congresses/> (Retrieved on 18 April 2016).

³ TICCIH (2003), *The Nizhny Tagil Charter for the Industrial Heritage*, Moscow. <http://ticcih.org/about/charter/> (Retrieved on 18th April 2016).

⁴ The ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites (2008), Quebec, Canada.

“cultural and spiritual traditions, stories, music, dance, theater, literature, visual arts, local customs and culinary heritage”; 4. The authenticity of the communities and materials should be conserved along with cultural values; 5. Social, financial and environmental sustainability should be strengthened through long-term maintenance and regular reviews; 6. Site planning should be open to the public, including specialized multi-disciplinary collaboration between community members, government authorities, conservation experts, site managers, and scholars; and 7. Consistent supervision should be ensured with continuing research, training, and evaluation. Similarly, in 2011, the Dublin Principles of Joint ICOMOS-TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes outlined the following points:

I. Document and understand industrial heritage structures, sites, areas and landscapes and their value;

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 value of industrial structures, sites, areas and landscapes to raise public and corporate awareness and support training and research.

Based on these principles, cultural sites as the witnesses to past activities and technologies link both tangible (industrial technology and processes, engineering, architecture and town planning) and intangible (the skills, memories and social lives of workers and their communities) dimensions to our day. The Ruhr region in Germany is one of the witnesses of the production and lifestyle of a specific period, and the conservation of the industrial culture in this region reveals it as an important part of the collective memory of its society. Accordingly, the European Route of Industrial Heritage (ERIH), which is the network of the most important industrial heritage sites in Europe, has several anchor points in Germany, one of the leaders of industry. On the contrary, not among the leading countries, only two sites from Turkey, Rahmi Koc Industrial Museum and Santral Istanbul Industrial Museum are included in ERIH's

network and are both in Istanbul.⁵ However, several industrial buildings and their sites are critical for the urban memory in Turkish cities and the urban conservation process in the Ruhr region will be elaborated through the case of Zeche Zollverein to shed a light on the future of industrial heritage in Turkey.

The World Heritage Site Zollverein as a Model of Conserving Industrial Culture

The Ruhr has been the core of industry in North Rhine-Westphalia (one of the 16 states of the Federal Republic of Germany), for one and a half centuries, but the history of German mining well precedes the 19th century. In the 1750s, the initial German mines were in the region of *Rhineland* (today the state of North Rhine-Westphalia) along the valleys of the River Ruhr. These oldest mining areas in the region were added to the sources of income even before the Industrial Revolution, before which the population earned its livelihoods mainly from agriculture, handicrafts and commerce. The surface mining that took place around the rivers as well as the Ruhr transformed the topography through the removal of surface vegetation and earth. After the Industrial Revolution, both the mining areas and the towns expanded. Specifically, the use of coal in the steel industry in the 19th century required new living environments and infrastructures, and new settlements for the workers were built close to the industrial sites, according to the planning ideas of the period. Moreover, coal mines and coking plants were the defining aspects of urban configuration in most countries. Accordingly, while new neighborhoods were being built to accommodate the workers, new roads, railways, and canals were constructed for transporting products. However, in order to avoid the problems of the rapid urbanization processes of the Industrial Revolution (such as the epidemics in the UK, specifically in London), the rivers that passed through these coal mines and plants were used as open sewers for both industrial and human waste in Germany. This helped to remove the dirty water rapidly rather than allowing it to mix with the domestic water as happened in London. However, it was not

⁵[http://www.erih.net/index.php?id=9&user_erihobjects_pi1\[mode\]=1&L=0&user_erihobjects_pi1\[country\]=38](http://www.erih.net/index.php?id=9&user_erihobjects_pi1[mode]=1&L=0&user_erihobjects_pi1[country]=38) (Accessed 18th May 2016).

possible to address the infrastructures in closed canals owing to the differences in earth levels caused by the mining activity. This led to environmental pollution of the rivers around the industrial areas. Moreover, the power of the coal and steel industry was affected by the wide use of new energy sources such as gas oil in the 1960s and the worldwide economic crisis of the 1970s. At the same time that thousands of miners were losing their jobs, the steel industry was accused of damaging the environment. Although these industries were increasing their economic wealth from the earth, they were heavily damaging their surroundings. After the massive departures, this region was declared a *brown field* in the 1970s. Therefore, the industrial sites and the cities they were located in came to represent the environmental pollution in the Ruhr, as was happening worldwide.

Because the coal mines in Germany gradually faced the fate of closing down, the worker settlements were no longer in use by the 1960s. Conservation of churches and historical settlements was a common tendency in Germany and in Europe throughout the twentieth century, but industrial production sites and their environs were never considered prospects for conservation. The initial subjects for industrial site conservation were the worker dwellings that had been built around the mines and that faced the threat of demolition in the late 1960s. One of the earliest cases, the *Siedlung Am Sommerberg/Am Winterberg* in Dortmund triggered reaction from the students and faculty of the Planning Department at TU, Dortmund. The residents, the media and the local Social Democratic Party collaborated with the university project group, and the city of Dortmund identified the settlement as “a remarkable part of city history” and “a historical document” that was worth conserving. Consequently, in 1971, the demolition of this settlement was forbidden (Raines, 2011, pp. 186-187). *Siedlung Eisenheim*, “the earliest privately built workers’ housing in Germany,” which had served the workers of Krupp’s *Gutehoffnungshütte* in Oberhausen, experienced a similar process in the early 1970s. This time, Professor Roland Günter and his students from *Fachhochschule Bielefeld* changed the future of the settlement with a student research project (Raines, 2011, pp. 187-188). The collective action that saved these settlements led to the conservation of other *Siedlungen* in the *Ruhrgebiet* as well. According to the first monument protection law of NRW in 1980, “objects, majorities of objects and parts of objects that are

in the public interest to retain and use” were defined as monuments. These “objects” included those that were “significant (...) for the development of working and production relationships...,” with no reference to aesthetic values (Durchholz & Pfeiffer, 2008, pp. 113-114). In that same year, an article by the architect Wilhelm Busch on the history of one of the main industrial sites was in line with the views of the state minister for urban development, Christoph Zöpel (Durchholz & Pfeiffer, 2008, p. 116).

In fact, these actions between the mid-1960s and late 1980s prepared the ground for broader developments in the Ruhr region. These local movements spread throughout this characteristic region, introducing a new *perspective in order to conserve* the industrial buildings and their sites. The process can be said to have taken place in two main phases:

1. 1989–1999, which stemmed directly from the IBA Emscher Park Project
2. 2000s–today, including new ways of doing

1st Stage: Internationale Bauausstellung (International Building Exhibition – IBA) Emscher Park Project (1989-99)

North Rhine Westphalia was the first to bring forward the issue of conserving industrial buildings and their sites in Germany. In the mid-1980s, Dr. Christoph Zöpel, the Minister of Urban Development, Traffic and Housing, put forward the idea of conserving the urban quality with the monumental industrial buildings. Revitalizing the polluted environment and the River Emscher was also significant for him and for the small group of intellectuals around him as well. The mines and the coking plants, as well as their sites, had been the engines of Germany for many years, and it was determined that they were important aspects of the country’s identity and collective memory. Additionally, the cultural landscapes in this region reflect a way of life peculiar to one period. Not only coal, steel and iron but also industrial and military machines were manufactured in this region during World Wars I and II. Accordingly, in order to provide a communications network, the first regional planning was enacted in the Ruhr in the 1920s with the help of roads, railways and canals. These industrial sites in the Ruhr helped this region to become the locomotive of German economic growth after World War II. As a result, the state and the local authority initiated public opinion efforts

that led to German society's awareness and formed the background of a new project.

Although this process, which was begun by democratically elected officials, can be considered a top-down movement, it garnered respect from a wide variety of people in Germany. The public was involved in the planning process, and participation became an important issue. In response, in addition to politicians (in Germany, the federal government, regional state governments, and local mayors), the public (local residents), NGOs (environmental concerns), universities (for scientific advice and expertise) and the market (private sector) were and still are the main actors. Consequently, both criticism and support from different parts of society, at both the national and international levels, were welcomed and the movement developed, gaining velocity between 1989 and 1999. In relation to these, *Stiftung Industriedenkmalpflege und Geschichtskultur* / Foundation for Industrial Preservation and Historical Culture was founded in 1995 by the state of North-Rhine Westphalia, in Germany, as the first and only national foundation for industrial history [*Industriedenkmal-Stiftung*, http://www.industriedenkmal-stiftung.de/docs/41272833752_de.php (Accessed 8th April 2016); Raines, 2011, p. 193]. Researching the history of the former coal, iron and steel production sites and sharing it with the public was among the aims of this foundation. However, the foundation's most significant aim was its determination to work on these sites as a whole in this major industrial region of Germany. To prevent demolition of the formerly industrial sites, the foundation developed a creative project that was supported on a national scale; the International Building Exhibition (IBA) Emscher Park project is the critical component of this work.

Consequently, the Ruhr region, which was highly urbanized and industrialized in the twentieth century, became the subject of the IBA Emscher Park Project, in a search for solutions for the obsolete forms of modernity. The IBA project was founded in 1988 after hundreds of thousands of workers left the region. Soon after its establishment, in 1989, the project addressed *reconstructing the landscape*. However, the topography had been largely destroyed with the excavations and in-fills, and there was no way of returning to the original landscape. Accordingly, proposing a new model for this region for the new century became a tool of highlighting the *industrial culture* and the cultural identity of the region.



Figure 1. Emscher Landscape Park 2010 Master Plan. River Emscher covers an area of around 800 km square on the Ruhr. (Source: Copyright by Stadtplanwerk Ruhrgebiet, Regionalverband Ruhr.)

The River Emscher, which gave its name to this project, is the principal connector of the cities, settlements and industrial sites in the Ruhr region (Ruhrgebiet) and its geographic character. Starting from Holzwickede, it flows into the Rhine through Dortmund, Castrop-Rauxel, Herne, Recklinghausen, Gelsenkirchen, Essen, Bottrop, Oberhausen and Dinslaken.

The river and its branches cover an area of approximately 800 square km, from Dinslaken and Duisburg in the west to Bergkamen in the east of the Ruhr (Figure 1). The site is 70 km from west to east and 15 km north to south [Department of Urban Design and Land Use Planning, Faculty of Spatial Planning, TU Dortmund (Eds.), 2008, p. 8]. Therefore the project unites formerly industrial sites in the Ruhr that have various features along the River Emscher.

From the ecological perspective, restoring the Emscher River to its natural formation has been the main concern throughout the process. Consequently, the river plays a crucial role for the IBA. Although the river once represented environmental pollution before the project's implementation, it developed into an accessible landscape element after its rehabilitation. The 84 km river was converted into a part of the public park, with designed platforms and boardwalks to account for the level differences.



Figure 2. The renovation of the industrial sites improved these structures to architectural monuments and became the focus of attraction. (D. Kaçar Archive)

In contrast, from the economic perspective, with the renovation of the industrial buildings and their leftover spaces, these sites as a whole were elevated to architectural monuments and became the focus of attraction (Figure 2). Many industrial sites in Bergkamen, Herne, Bottrop, Dortmund, Duisburg, Essen, Gelsenkirchen, Hamm, Gladbeck, Herten, Kamen, Lunen, Oberhausen, Recklinghausen and Unna were transformed to new landscapes with a variety of facilities. The success of all of these outstanding projects transformed the region's character from an abandoned brownfield to an inspiring territory.

With its unusual industrial structures, Zeche Zollern in Dortmund was the first colliery to be conserved in the Ruhr (Figures 3 - 4).⁶

⁶ The majority of the buildings were designed in Jugendstil by the architect Paul Knobbe and constructed between 1898 and 1904. Both the buildings designed by Knobbe and the central engine house designed by Bruno Möhring in the Art Nouveau style are atypical examples of industrial architecture and were recognized as monuments in 1969 after the colliery was closed down in 1966.



Figure 3 (left). The building designed in Jugendstil by Paul Knobbe. (D. Kaçar Archive)

Figure 4 (right). The central engine house was designed by Bruno Möhring in the Art Nouveau style. (D. Kaçar Archive)

Another critical case of the earliest projects is the Duisburg-Nord Landscape Park (Landschafts Park). The idea for a post-industrial park right on the site of a former steel plant was added to the agenda in 1989 as one of the first IBA projects (Figures 5 - 6).⁷



Figures 5-6. Duisburg - North serves for 100.000 inhabitants per year. (D. Kaçar Archive)

⁷ This landscape park is one of the most visited projects in the region and receives broad recognition from the international media. To Peter Latz, who designed the park with his partners in 1991, all of the infrastructure and industrial relics at the site were “an aesthetic of gigantic objects that could potentially function as landmarks and nourish the *genius loci* of the site. The abandoned colossuses of steel production also spoke a language of the sublime. ‘A blast furnace is not only an old furnace. It is a menacing ‘dragon’ frightening men and rising above its surroundings’” (Stilgenbauer, 2005, p. 7). As a result, this vast land of 200 hectares was transformed into a recreation area that serves 100.000 inhabitants of North Duisburg.

The Zeche Zollverein in Essen, which has been undergoing transformation since the 1980s is one of the main IBA Emscher Park projects and nominated as UNESCO World Heritage sites.

Zeche Zollverein, Essen: A Model for Industrial Management

The first shaft, Shaft 1/2/8, of what would become the Zollverein mining complex began operations in May 1847 west of the village of Katernberg, Essen. This privileged location, purchased by Franz Haniel, was ideal for transportation because it was only 300 meters from the Minden railway line to the south of Cologne. In 1880, the work began on opening a new site, Shaft 3/7/10, to reach more coal in the southeast of the former mines. In 1891, the work began for Shaft 4/5/11 to mine the coal deposits in the northeast, and a railway link was constructed in 1895. Another shaft area for the coal streaks in the southwest of the former mines was Shaft 6/9, construction of which began the same year (Seifert, in Durchholz & Pfeiffer, 2008, pp. 17-25). As a result, the Zeche Zollverein⁸ site is formed of multiple campuses in the Katernberg neighborhood of Essen, including the workers' housing. As with many others, the *Siedlung Ottekampshof* of Zeche Zollverein, Essen, which was built as a "garden city" of workers' housing between 1896 and 1898 in Katernberg, was added to the agenda as a subject of "modernization" in the 1970s, although, fortunately, in its existing condition. In fact, the Zollverein Shaft XII Coal Mine (Zeche Zollverein), together with the Zollverein Coking Plant (Kokerei Zollverein) and the Zollverein Colliery 3/7/10 Public & Commercial Park in Essen, is unique, with its distinguishing character as the world's largest and most productive in the early twentieth century. In 1928, two young architects, Fritz Schupp (1896–1974) and Martin Kremmer (1894–1945), designed Shaft XII on a 24-hectare area, near Schacht 1/2/8 [Department of Urban Design and Land

⁸ The word *Zeche* has two meanings in German related to mining: "1. n. excavation of the earth from which ores and minerals are extracted and 2. n. a workplace consisting of a coal mine plus all of the buildings and equipment connected with it" (<http://www.lexipedia.com/german/Zeche>). In contrast, *Zollverein* is the name of the German Customs Union. Beginning in 1820, most of the German states came together to sign economic agreements against commercial barriers. From 1871 onwards, the newly founded German Empire controlled the union, andfore, the largest coal mine in the Ruhr Region, Zeche Zollverein, takes its name from this union.

Use Planning, Faculty of Spatial Planning, TU Dortmund (Eds.), 2008, p. 277]. The design of Shaft XII was the most important work of these architects, who became students of Paul Bonatz and Theodor Fischer, who was one of the founders of the German Werkbund (Stiens, 2008, pp. 47-48). The two architects developed the concepts for the buildings in the Bauhaus style of the 1920s. Although it was affected by the worldwide Great Depression, their work, based on a steel skeleton with flexible facades, is still a remarkable contribution to modern mining architecture (Stiens, 2008, p. 58). Unfortunately, after participating in competitions and working on a number of designs, Kramer died in 1945, and Schupp designed the coking plant (Kokerei) himself. The plant began operation in 1961 and was still in operation when Shaft XII was closed in 1986.

In the first monument protection law of NRW in 1980, "objects, majorities of objects and parts of objects that are in the public interest to retain and use" were defined as monuments. These "objects" included those that were "significant (...) for the development of working and production relationships..." with no reference to "aesthetic" values (Durchholz & Pfeiffer, 2008, pp. 113-114). That same year, an article by the architect Wilhelm Busch on the works of Fritz Schupp and Martin Kremmer was published by the Rhineland Office for Monument Preservation as the first academic study on Zollverein (Durchholz & Pfeiffer, 2008, p. 116). Mining companies are actually responsible for removing all equipment and buildings when mining operations end, according to mining law. However, the Rhineland Office for Monument Preservation and a number of local politicians who shared the opinions of Günther Borchers and the NRW Minister of Urban Development, Christoph Zöpel, had the idea of protecting the Zollverein as a monument, although the city of Essen and the owner of the colliery (the Ruhrkohle AG - RAG) were reluctant to preserve the site (Durchholz & Pfeiffer, 2008, p. 111). As a result, however, despite the hard discussions on maintenance, only one week before its closing in 1986, Shaft XII was declared a historical monument by the Rhineland Office for Monument Preservation and the city's monument protection authority for coming generations, in line with the views of Minister Zöpel.

However, the site was difficult to manage, and the building was left as it had been for monument protection. Therefore, *Landesentwicklungsgesellschaft Nordrhein-Westfalen* (LEG), which had been responsible

for redeveloping and marketing disused areas since 1980, purchased Shaft XII from RAG in 1986. This North Rhine-Westphalia Development Company commissioned experts to develop a concept for the future use of the site in 1987, and the report, *Forum Kultur*, was ready in 1988. In 1989, when the IBA Emscher Park Project was announced, the reconstruction and regeneration of Shaft XII began. The Bauhütte Zeche Zollverein Company was established the same year, by the city of Essen and LEG, with the aim of reconstructing and repairing the site (Durchholz & Pfeiffer, 2008, pp. 119-120). Beginning in 1990, the architects Heinrich Böll and Hans Krabel from Essen worked for *Bauhütte* and succeeded in cleaning up the site while proposing new uses for the buildings, including many art events. In 1992, Foster and Partners were commissioned to redesign the interior of Shaft XII, and this London architectural firm created a simple, transparent and ordered space for exhibitions that respected the original architecture. In 1993, Ruhrkohle AG (RAG), the owner of the Zollverein coking plant, announced that Shaft 1/2/8 was to be closed down. In 1994, the administration building, which had been built in 1906 in neo-baroque style, was transformed into the Asia Foundation, which brought together organizations related to Asia. The rest of the shaft was used for the art events such as dance and choreography. In 1998, the Zollverein Foundation was established by the city of Essen and the state of North Rhine-Westphalia as a non-profit organization with the aims of preserving World Heritage status, promoting culture and developing Zollverein as an international culture and business location. "The Foundation was able to rescue the most important parts of the Zollverein coking plant from demolition when it took the site into its ownership" (Durchholz & Pfeiffer, 2008, p. 115). Its exceptional industrial, historical and architectural characteristics made Zollverein one of the most important elements of the IBA Emscher Park Project. Consequently, these buildings, which had symbolized the rise and fall of the industry, came to be visited by large numbers of domestic and foreign visitors (**Figure 7**).



Figure 7. Domestic and foreign visitors come to see these symbols of the industry. (D. Kaçar Archive)

2nd Stage: Project Ruhr and Economic Promotion Metropol Ruhr GmbH (2000-)

Conserving the sites that had significant places in Germans' collective memory was vital, but the economical sustainability of the system was a critical problem. Maintaining the transformed sites was not easy, and it required creative solutions. However, cultural and social centers were not the only ways of transforming these formerly industrial buildings and their sites anymore. Because efficiency is crucial, some buildings were converted into educational institutions, arts centers, and ateliers as well as public- and private-sector business centers after the year 2000. As a result, the Zollverein Coal Mine and Kokerei, along with all of its branches in the north of Essen, is a prime example of multiuse development.

On 20th June 2000, both the Zollverein Coking Plant and Shaft 1/2/8 were declared monuments by the city of Essen (Durchholz & Pfeiffer, 2008, pp. 130-131). The site of the coal mine and the coking plant was 100 hectares in total, as large as the old city of Essen. Beginning in the year 2000, experts from the University of Essen prepared the ground for a master plan that would form a vision for the future of the site, and after the initial coordination of the Bauhütte Zeche company for the Zollverein Schacht XII GmbH from 1989 to 1999, 2001 was the milestone for the Zollverein. Shaft XII and Shaft 1/2/8 were nominated as UNESCO World Heritage sites as a result of their unique character, after the development company Entwicklungsgesellschaft Zollverein GmbH (EGZ) was founded to implement the project with funding from the EU, the state of North

Rhine-Westphalia, the city of Essen and private sponsors. In fact, the site was among the 21 new projects to be proposed to the UNESCO World Heritage Committee in 1998, but the proposal was postponed by the International Council on Monuments and Sites (ICOMOS) until 2001 because of the planned extensions as a part of an IBA exhibition and the reconsideration of the borders. After a comprehensive management plan and a catalogue of measures were presented to the World Heritage committee in June 2001, the coal mine and coking plant were announced as cultural monuments to be conserved for their historical and cultural value (Durchholz & Pfeiffer, 2008, p. 154). Accordingly, OMA Rem Koolhaas began work on a 'Walled City' master plan for the site in 2002. In this master plan, Zollverein was not only a museum but also a "location for the future" (Borgelt & Jost, 2009, p. 20). It would be developed into a space for business, design, culture, education and tourism. Four years after its master plan, Zollverein Park was opened up for a Europe-wide competition as an industrial heritage. The announcement of the competition attracted more attention to this unique site, and after the transformation process, its industrial character became one of the most popular cultural landscapes in Germany.⁹

Following its transformation, Zeche Zollverein also represents the cultural transformation of the Ruhr region through innovation. Along with its Bauhaus architectural character, the site began to demonstrate contemporary examples of architecture beginning in 2006. Now, new buildings such as the Zollverein School for Design and Management¹⁰ (*Folkwang Universität der Künste* - the SANAA-Building) are allowed only in specific places because the site and the historical buildings are conserved under the *Denkmalschutzgesetz* law (historic preservation law).¹¹

⁹ Since becoming the central contact point of Ruhr as the European Culture Capital in 2010, this site hosts 500.000 visitors annually.

¹⁰ This first contemporary building, which was designed by the Japan architects Kazuyo Sejima and Ryue Nishizawa, was intended to be an entrance to the historical site. In addition to serving for the faculty department programs, this building can be hired out for conferences, exhibitions and other events, in line with the spirit of the site. For uniting the historical with the modern, the architects received the Pritzker Prize in 2010, when the Ruhr Region was declared *the Capital of Culture*.

¹¹ Not only the building and landscape characteristics but also the art objects to be displayed at the site of IBA Emscher Park were determined precisely. All of the art works were selected through international competitions and came to serve as reference points in

However, to maintain these structures and their sites, new solutions are needed and, as such; the Zollverein planning process has been developing since the 1980s. New buildings are allowed to be constructed as long as they comply and are consistent with the *Denkmalschutz* law. In relation to that, a competition for the new buildings to be constructed at Zollverein site was announced in 2012, and regional architects designed the new business zone. In that same year, the headquarters for RAG, MI moved to its new building at this historical site in Essen. Today, Schacht XII and Schacht 1/2/8 are used for cultural and creative industries, Schacht 4/5/11 is used for a business endeavor known as Triple Z, and Schacht 3/7/10 is used for elderly residences and social purposes. Meanwhile, the Kokerei includes both creative industries and the business sector at its site (Figure 8).

A new building for the design faculty is being built, and an interdisciplinary institute for the University of Duisburg-Essen, the Erwin L. Hahn Institute for Magnetic Resonance, is located at the site, too. This tomography research center, which is managed by the medical school, is in the former control station of the Zollverein coking plant yet is a modern research facility.



Figure 8. Zollverein historical site and the new development area. (Source: RAG, MI. Copyright by Hans Blosssey, Hamm.)

However, in not only Zollverein but also most of the formerly industrial sites, energy production is currently one of the main concerns of the

time. These reference points became significant program elements for both domestic and foreign visitors for experiencing the site through the landmarks.

transformation process.¹² Although commercial and technology parks, logistic parks and industrial estates are the most common reuses for these vast cultural and historical sites, energy parks have been introduced into the sector in the last decade. Consequently, the state, municipality, university, and private sectors and the EU have roles in the transformation process [politics (federal government, federal land and local mayors), market (private sector), NGOs (environmental concerns), public (local residents) and universities (for scientific advice and expertise)]. Among many other players that own these sites, such as the army and the railway company, a number of private-sector companies, such as RAG, MI and the energy company RWE, are included in the processes of transformation.¹³ In this process, the project managers from the municipality and the owner company are working very closely, and actors from the outside are included in the process as well. Competitions are seen as the best way to develop projects for the sites, which concern multiple actors such as NGOs, universities, politicians and citizens.

In brief, the Ruhr region unites various methods of managing industrial culture. Karabaic (2013) summarizes these industrial heritage activities in this region as preservation of historical monuments, urban regeneration, landscape management, cultural development and tourism design and development. By seeing industrial sites as incentives for urban development, Karabaic underlines the importance of involving companies,

¹² Local Public Energy and RAG are sponsors of research in the field of energy and possible uses.

¹³ One energy project by the city and the owner company, RAG, MI, is *Kreativ Quartier Lohberg* in Dinslaken and it lies on 40 hectares. The project is an interdisciplinary collaboration for gathering social, political, environmental and investment groups on a common ground; managing environmental issues such as preparing the formerly industrial land for future uses and caring for the ecosystem and the habitats of the animals that live at the site; documenting the historic buildings in accordance with the *Denkmalschutz*; planning the future of the site; and so on. Although the land development plan is being prepared by the owner company for ministry approval, the entire project has been entered in an architectural competition in Lohberg as well. This ecofriendly residential, commercial and business district with renewable energy is used for creative industries, handiwork, technology, service, gastronomy, leisure, health, and industry as well as forest and green areas. Another ongoing multiuse project in Ruhr is *Zukunftsstandort Ewald* in Herten, on land of 52 hectares. This site was also entered in a competition and is mostly used by high-tech companies for technology services, logistics, gastronomic industries, trade, commerce, leisure, etc.

handling industrial monuments appropriately, preserving authentic locations, sharing knowledge, complying with quality standards, strengthening voluntary commitment, promoting tourism and developing an umbrella organization (2013, pp. 286-88). Accordingly, over the last decades, interdisciplinary specialists as well as NGOs and governments have become involved many conservation projects and invested their energies into recovering the region's industrial sites. However, the critical factor is the will to conserve the sites in their authenticity while making them accessible to the public with multiple uses.

Concluding Remarks

Industrial sites, as the artefacts and images of collective memory, are significant because the memory can help us to understand a territory's complex structure and physical conformation. Not only the IBA Emscher Park Project (1989-99), which offered a new way of changing the culture of formerly industrial buildings and their sites, but also the contemporary works performed with distinguished industrial monuments and their cultural landscapes after the year 2000 elevated the Ruhr region to the status of a "Capital of Culture" in 2010. In the process, both the vast mining industry lands and many other types of smaller-scale industrial buildings, along with their sites, were subjects for conservation. After the initial attempts in the Ruhr region, including former textile factories and various industrial production environs that were transformed into new living environments, this movement spread throughout Europe and other countries worldwide. The UK, the Netherlands, and Taiwan managed similar projects simultaneously in their own countries, although at different scales.

While industrial culture has been a subject of international organizations such as ICOMOS and UNESCO, it is a recent field of study for Turkey. Therefore, other than the published international documents and contemporary examples, the conservation criteria for industrial sites are unclear in Turkey. On the other hand, the case of Ruhr is a concrete way of presenting the critical Dublin Principles of Joint ICOMOS-TICCIH for documenting and understanding industrial heritage structures, sites, areas and landscapes and their value; ensuring effective protection and conservation of the industrial heritage structures, sites, areas and landscapes;

conserving and maintaining the industrial heritage structures, sites, areas and landscapes; and presenting and communicating the heritage dimensions and value of industrial structures, sites, areas and landscapes to raise public and corporate awareness and supporting training and research. With this character, both the region as a whole as well as its post-industrial components in smaller scale can be a model for Turkey for linking tangible and intangible dimensions of a specific period to the present.

Turkey's limited industrial conservation examples include the Silahtarğa Electric Power Station, now used as *Santralistanbul*; the Cibali Tobacco Factory, now *Kadir Has University*; Lengerhane, now the *Rahmi Koç Industrial Museum*; the Terkos Pumping Station, now the *Water Civilization Museum*; the Railway Repair Ateliers, now the *Cer Modern Art Centre*, the Seka Paper Factory, now the *SekaPark* and others, all of which are located mostly in Istanbul or Ankara. However, as can be observed from the Ruhr case, the regions (or the cities) can be planned as a whole for the unity and the continuity of conservation of industrial heritage structures, sites, areas and landscapes instead of local interventions. In that sense, the idea of having the River Emscher as a constructive element for connecting industrial culture in different cities and the "Route of Industrial Heritage" can be an inspiration for uniting many industrial heritage structures, sites, areas and landscapes in this country.

Moreover, the case of Zeche Zollverein in Essen, as well as many others in the region can be the models for integrating business, design, culture, education and tourism to former industrial sites for multiuse development. This will help conserving the sites that has significant places in collective memory, while providing economical sustainability with creative solutions. But, for economical sustainability, not only the variety of facilities, energy production is another significant concern of the transformation process.

While restructuring economy, the Emscher Park project to Labelle (2001), altered a heavily degraded region in a new way that helped residents to be aware of their culture and hopeful for the future. By creating new landmarks like Zeche Zollverein, by revaluating the industrial heritage, the image of the region improved and the self-confidence of the inhabitants strengthened. The symbols of decline and hopelessness were transformed into new spaces with creative designs (Slach, O., Rumpel, P., Boruta, T.). In that sense, another important point to underline is that the success of the Ruhr region stems from very basic concerns such as democ-

racy and participation without excluding interdisciplinary work and architecture through competition. To Seltmann (2007, p. 5), IBA involved not only architects, planners, engineers and artists, but also local people and volunteers for high level quality in the projects. Therefore, to achieve successful conservation, public awareness is one of the main things to be enhanced with continuing research, training, and evaluation, through specialized multidisciplinary collaboration between community members, government authorities, conservation experts, site managers and scholars.

Acknowledgement:

This paper is an outcome of the post-doctoral research conducted in Essen, RAG, MI in 2016. The research is supported by the Scientific and Technological Research Council of Turkey (TUBITAK). The author is grateful to TUBITAK for the support; Prof. Dr. Hans Peter Noll and Gerhard Seltmann for their guidance.

References

- Ballester, J. M. (ed.) (2001). *The council of Europe and cultural heritage 1954 – 2000*. Germany: Council of Europe Publishing.
- Borgelt, C. & Jost, R. (2009). *Zollverein world heritage site essen*. Berlin: Stadtwandel Verlag.
- Buchanan, A. (2014). The origins and the early days of the AIA *Industrial Archaeology News*, 169, 2-4.
- Department of Urban Design and Land Use Planning, Faculty of Spatial Planning, TU Dortmund (Eds.), (2008). *International building exhibition Emscher Park*. Essen Klartext: Verlag.
- Durchholz, U. & Pfeiffer, M. (2008). Auf dem weg in die zukunft: Zollverein nach der stilllegung, Stiftung Zollverein (Hrsg.), *Welterbe Zollverein*. Essen: Klartext.
- ERIH. (2016). *About Erih*. <http://www.erih.net/service/topmenu/about-erih.html> (Retrieved on 18th April 2016)
- Halbwachs, M. (1980). *The collective memory*, Ditter, F. J. and Ditter, V. Y. (translator). New York: Harper and Row Colophon Books.
- Hudson, K. (1979). *World industrial archaeology*. Cambridge: Cambridge University Press.
- ICOMOS & TICCIH. (2011). *Joint ICOMOS – TICCIH Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes*. http://www.icomos.org/Paris2011/GA2011_ICOMOS_TICCIH_joint_principles_EN_FR_final_20120110.pdf (accessed on April 15, 2016)

- Karabaic, M. (2013). Organizing industrial heritage in north Rhine-westphalia (nrw), Germany, *TICCIH Congress 2012: The International Conservation for the Industrial Heritage Series 2*, Chung Yuan Christian University, 285-88.
- Labelle, J. M. (2001). Emscher Park, Germany – expanding the definition of a park, *Crossing Boundaries in Park Management: Proceedings of the 11th Conference on Research and Resource Management in Parks and on Public Lands*, edited by David Harmon, Hancock, Michigan, The George Wright Society, 222-27.
- Raines, A. B. (2011). Wandeldurch (industrie) kultur [change through (industrial) culture]: conservation and renewal in the Ruhrgebiet, *Planning Perspectives*, 26:2, 183-207.
- Rix, M. (195) Industrial archaeology, *The Amateur Historian*, 2(8), 225-229.
- Rossi, A. (1989). *The architecture of the city*. Cambridge, Massachusetts, London, England: The MIT Press.
- Seltmann, G. (2007). *Renaissance of an industrial region: "internationale bauausstellung Emscher park" achievements and future model for others*, RISS – Research Institute for Sustainability Studies, University of Osaka. <http://www.riss.osaka-u.ac.jp/jp/events/point/P.Seltmann.pdf> (Retrieved on 26th April 2016).
- Slach, O., Rumpel, P., Boruta, T. (2011). Transferable impulses of IBA Emscher Park - *Czech Perspective*, 200-210. <https://www.researchgate.net/publication/259822260> (Retrieved on 28th April, 2016).
- Stiftung. (2016). Die stiftung industriedenkmalpflege und geschichtskultur. 'Industriedenkmal-Stiftung', http://www.industriedenkmal-stiftung.de/docs/41272833752_de.php (Retrieved on 18th April 2016)
- Stilgenbauer, J. (2005). Landschaftspark Duisburg Nord – Duisburg, Germany, *Places: A Forum of Environmental Design* 17, No. 3: 7.

Assist. Prof. Dr. Ayşe Duygu Kaçar,

Studied architecture at Gazi University (B.Arch., 1999). Received her M. Arch (2002) and Ph.D. (2010) degrees from the Department of Architecture at METU. Worked as a research assistant in the same department between 2004 and 2011. Visiting scholar at George Washington University (2008) and at TU, Dortmund (2010) for her doctoral research. Conducted post-doctoral research on industrial culture at RAG, MI, Germany in 2014 and 2016, which was sponsored by The Scientific and Technological Research Council of Turkey (TUBİTAK). Currently teaching on architectural and urban design at Eskisehir Osmangazi University, Department of Architecture. Specialties: Architectural design and theory, urban and environmental history, urban social space, industrial heritage, culture.
E-mail: duygukacar@hotmail.com



Zeche Zollverein Maden Ocađı
Kaynak: upload.wikimedia.org