# The revival of the industrial heritage in Eskisehir-Turkey through the rehabilitation of the Porsuk River



Ayşe Duygu Kaçar \* Açalya Alpan \*\* Eskişehir, Turkey

### **Abstract**

Eskisehir is a riverfront city and it is one of the first cities that gained industrial character in Turkish Republic founded in 1923. The Porsuk River divides the city into two and the industrial sites lie in an eastward-westward direction along the River. During the industrialization process of the city, most of the factories and enterprises were established along Porsuk, causing pollution. After 1965, high rise buildings constructed along the River damaged the previous visual perception of the River. Increasing high-rise buildings accompanied by increasing population and vehicular traffic damaged the 'urban image' of the River causing in neglect and ignorance. In the 2000s, the Porsuk River's value as a 'being' was rediscovered and it was benefitted as an urban resource. Through the urban renewal works of the local government, plans on the theme of "the riverfront and the city" commenced. In 2010, the municipality rehabilitated approximately 10 km -the part flowing through the city- of the River and improved the riverbank. The process acted as a catalyst and triggered others. This study discusses the current and possible future role of the rehabilitation of the Porsuk River in the improvement of industrial heritage in Eskisehir.

**Keywords:** Innovative urban renewal projects in industrial heritage sites, derelict areas in politicized city centers

<sup>\*</sup>duygukacar@hotmail.com ESOGU Department of Architecture, Turkey

<sup>\*\*</sup> ESOGU Department of Architecture, Turkey

# Introduction

Eskişehir is a middle-scale Mid-Anatolian riverfront town with a population of 845 thousand. It has been settled down since the ancient times. It is an important crossroad between İstanbul -the former capital city- and Ankara -the new capital city-; therefore, it is close to the markets in Anatolia. With the foundation of Turkish Republic in 1923, establishing modern industrial cities and a modern society became the politics of the state (Tülce, 2012). Due to its location and raw material sources, Eskişehir became one of the cities chosen for industrialization.

The Porsuk River, the railway and the station became the determining factor for locating the industrial areas in the city (**Figure 1**). Due to both the industrialization of the area and acceleration of urbanization, the River had ended up being a polluted and neglected urban element. In the 2000s, with the rediscovery of the River as a 'being', works related to its rehabilitation and to its re-integration to city life launched resulting in social and economic revitalization of the city centre. This process acted as a catalyst and triggered other revitalization, improvement and development processes particularly in the Ex-industrial Area, in the historic part called Odunpazarı, and in the parks, booming domestic tourism in Eskişehir and making the city a tourism brand in Turkey. Eskişehir is also a university town with three universities. The student population and tourists significantly affect the high-use of the River itself through river tours and the 24hr use of the riverbank. Besides, the Municipality supports the use of the River through artistic and sport events or activities. Considering this rich potential of the River, this study briefly aims to discuss the current and future role of the rehabilitation of the Porsuk River in creating a spatial industrial heritage network of Eskişehir along the River.

## Historical development of the city alongside the Porstuk River

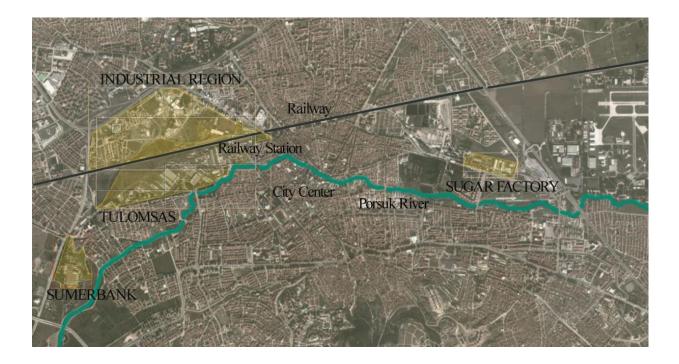
Eskişehir region's settlement history goes back to the 11th century BC, while the known history of today's city centre beside the River goes back a few hundred years. In ancient times, the Porsuk River was named as Temros (Doğru, 2005 in Koç, 2018). After Eskişehir became a Seljuk City, it was renamed by Emir Porsuk who was the Seljuk commander (Kayhan, 2005 in Koç, 2018).

As it can be seen from the 1/10.000 scale 1896 map of Eskisehir and its environs (**Figure 2**) by the then Ministry of War's Division of Land Commission, Porsuk River is dividing the city into

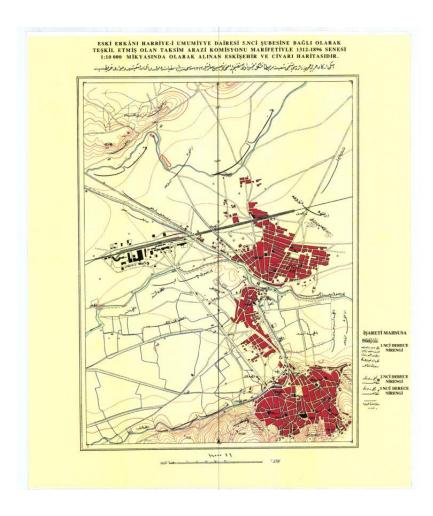
two in an eastward-westward direction. In the map, three areas, forming the nucleus of today's central area can clearly be seen: [1] Historical settlement -called Odunpazarı- on Bademlik Hill at the south; [2] The commercial district along the both sides of the Porsuk River and also crossing the railway; [3] The growing industrial region at the western side along the River.

The historic part of the city, called Odunpazarı (meaning 'bazaar of wood'), is at the south of the commercial centre, on the slopes of Bademlik Hill. The rehabilitation of the district started soon after the rehabilitation of the River. Odunpazarı Historical Urban Site entered UNESCO World Heritage Tentative List in 2012. Together with outstanding examples of Seljuk and Ottoman monumental and civil architecture and with the restoration, conservation and regeneration works of the last decade, today Odunpazarı is a brand image of Eskişehir according to visitors (Koç, 2018).

In the 1896 map, the buildings at the western part of the city are a part of the very first industrial site: The Locomotive Maintenance Atelier. Today it still exists and continues production under the name of the Turkish Locomotive and Engine Industry Corporation – TÜLOMSAŞ-.



**Figure 1.** Aerial view of Eskisehir today. **Source:** Google Earth.



**Figure 2.** 1896 map of Eskisehir. **Source:** Metropolitan Municipality of Eskisehir.

The Locomotive Maintenance Atelier was the first industrial establishment in the city in 1894. After the World War I, with the establishment of Turkish Republic in 1923, the Izmir Economic Congress was held in 1923, the Law for Encouragement of Industry was enacted in 1927 and the first Five-year Industry Plan was released in 1934. All these developments seeking a self-sufficient, industrialized country contributed to Eskişehir's industrial character (Aksoylu, 2012, 48).

The Locomotive Maintenance Atelier as the railway factory, and the airplane maintenance centre founded in 1926 became the engines of national production in the Early Republican period. Moreover, the Sugar Factory that was established in 1933 as a part of the national sugar factories network<sup>ii</sup> and the Sümerbank Textile Factory as a part of the Sümerbank factories network in Anatolia in 1933 were among the particular state enterprises for self-sufficiency (Kaçar, 2017). All of the state enterprise factories along with the small and medium-scale private ones were located both close to the Porsuk River and the railway, to provide the

appropriate environment for their infrastructures. Sümerbank (the print cloth factory), TULOMSAS (the railway factory) and Sugar Factory are located right on the Porsuk River respectively (**Figure 1**). Accordingly, the Porsuk River and the railway as part of the Istanbul-Baghdad network and thus connecting the new capital Ankara and the former capital Istanbul, were, together with Bademlik Hill, the first elements defining the character and the macro-form of the city.

Between the 1920s and the 1950s, the River and riverfront were used for several recreational activities such as; summer theatres on both sides of the River, walking, swimming, fishing, drinking, eating, kayaking, enjoying the parks in the riverbank and etc. (Atuk, 2002). Unfortunately, in 1950, Eskisehir witnessed a great flood (**Figure 3**) that damaged the city a great deal. Following the disaster, canals and reservoirs were built on the River (Atuk, 2002).



**Figure 3.** Eskisehir Porsuk Riverbank and the town centre during the flood of 1950. **Source:** ibayrak.com

In 1960, slaughter-house neighboring Porsuk River was renewed (Ertin, 1994 in Koç, 2018). Until the 1960s, the water of Porsuk River was clean; therefore, the river was a part of the daily life in Eskisehir. However, with the beginning of the 1960s, Porsuk was polluted due to (Şimşek, 2011): Returning waters from irrigation, agricultural pollution, effluent waters of

Kütahya (neighbor city of Eskisehir) and slaughter-house wastes; and due to the industrial facilities that had been built up in the immediate vicinity of Porsuk (EBB, 2007 in Şimşek 2011): The wastes of Sugar Plant, the chemical dyes from the Sümerbank Plant, the wastes derived from the petroleum products of the TULOMSAS and the Air Supply Centre, TUGSAS, Thermal Power Plants and Ceramic Plants. Besides pollution, increasing population and urbanization negatively affected Porsuk River as well. With the Act of Flat Ownership in 1965, high-rise apartment blocks were started to be constructed along the River replacing the modest low-rise buildings.

In 1962, Orman Fidanlığı (Forest Nursery Garden) recreation and picnic area<sup>iii</sup> was established beside the Porsuk River, 7 kilometers from the city centre. It was spatially continued by Regulator recreation and picnic area, 5 kilometers from the city centre. In this manner, the western coast of the Porsuk River in Eskişehir region has become the main recreational area of the city.

In 1963, central intercity bus station was located beside the Porsuk River (Koç, 2018). In 1964, 1968 and 1970, floods continued damaging the farming areas and the settlement beside the Porsuk River (Özaslan, 2011). In 1972, Porsuk Dam was constructed.

During the 1970s, the pollution in the River continued. The colour of the Porsuk River began to change sometimes daily, according to the dye colour of the textiles produced in Sümerbank and the pollution in the River started to create an unpleasant odor (Şimşek, 2011). Following the pollution, the fish disappeared. The Fourth National Five-Year Development Plan covering the period of 1979-1983 mentions the pollution of air, water (Porsuk River) and soil in Eskişehir (Koç, 2018). The summer cinemas started to shut down after 1975 (Bodur 1990 in Koç, 2018).

With the 1980s, the industries at the northern part of the railway started to move to the organised industrial zone at the periphery, leaving their old factories. Today the area is called as the Exindustrial Area. The industry in the Ex-industrial Area included brick and tile, machine, lumber, tire rim, magnesite, flour, food and wine factories. The industrial landscape included other structures as well, such as the wholesaler hall and the grain silos. Between 1998 - 2003, most of the old industrial buildings were registered.

In 1996, Sümerbank was privatized and purchased by the Eskişehir-based well-known textile firm Sarar.<sup>iv</sup> It continues production. Sugar Plant and TÜLOMSAŞ continue its production as publicly owned enterprises as well.

## Urban Renewal Project and the Rehabilitation of the Porsuk River

In 1999, the ex-rector of Anadolu University in Eskişehir, Prof.Dr. Yılmaz Büyükerşen was elected as the Mayor of Eskisehir Greater Municipality in the local elections. He dreamed of a clean, green, art and high-culture city and used to express it as a 'European City'.

Büyükerşen's initial projects were affected by some important phenomenon of the period. In 1999, the Marmara Earthquake occurred with a magnitude of 7.4, damaging many cities and small settlements. In 2002, the Porsuk River was reported to be "one of the most polluted waters of Europe" by the Organization for Security and Cooperation in Europe. Accordingly, the River had been considered as a source of pollution because of the industrial waste and it was rehabilitated by the State Hydraulic Works (DSI). For that matter, making the city earthquake resilient and the rehabilitation of the River had been the initial project.

Eskisehir Greater Municipality organized "Common Mind Process" studies in the city, as a result, the main problems of the city were pointed out as Porsuk, infrastructure, sewage, and water (Koç, 2018).

Respecting Büyükerşen's vision and the studies conducted in the city, between 2000 and 2010, many urban projects were implemented by Eskisehir Greater Municipality under the title of 'Urban Development Project' loaned by European Investment Bank through the agreement in 2001 (Şimşek, 2011). In this process, superstructure, infrastructure, and also socio-cultural structure were focused at (Koç, 2018).

Porsuk River was restored in 2001 with credit from the European Investment Bank (EIB). Rehabilitation of the River included: the cleaning of the riverbed; landscape design; renewal of old vehicle and pedestrian bridges; reduction of disaster risks commence of boat and gondola trips for recreational purposes (Şimşek, 2011, p.179), arranging the flow, introducing new functions such as transportation and sports (Koç, 2018). Eskişehir Greater Municipality started to produce boats and gondolas by founding a shipyard (Koç, 2018). With the implementations,

Porsuk and its riverbank re-gained the former functions as well as getting new ones such as touristic boat trips. Şimşek (2011) tabulates these functions in **Table 1**.

Function	Porsuk River - City of Eskişehir
Potable/drinking water	Between beginning of the 1900s and 1930s (Until the 1900s,
2 0 110 23 0 11111113	cooled thermal water is used. By1936, Kalabak spring water
	started to be used as for drinking water).
Domestic/service water	Since the 1960s and after the 2000s' well-water purification
Sewage discharge	Between the 1960s and 1990s (non-treated) and since the
	1990s (treated)
Wastewater discharge	Since the 1950s, controlled after the 1990s
Source of irrigation	From Ancient times to present-day
Boating, canoing etc.	Boating until the 1970s and both since 2005
Fishing	Until the 1960s, and since the second part of the 2000s
Swimming	Until the 1960s, and since 2010 (in the part of Kentpark)
Recreation	From Roman civilization until the 1970s and after 2005
Washing up along the river	Until the 1950s
Transportation	No
Navigation	No
Object of rehabilitation	In 1980 (only cleaning sediments), and in 2001 in a comprehensive manner

**Table 1.** The function of Porsuk River in the city of Eskisehir. **Source:** Şimsek, 2011, p. 206

The package project, which has radically altered the image of the city in a positive way, had three main components (Bilgili, interview, 2010 in Şimşek, 2011):

### 1. Tram Project:

The first and basic tram network of Eskisehir was planned and implemented.

### 2. A project for reducing the damages of disaster:

The surveys revealed that the former bridges were not earthquake-resilient. Therefore, the second component of the Project aimed to construct 24 vehicle and pedestrian bridges crossing the Porsuk River, and to renew the irrigation channels.

3. The renewal of rainwater, drinking water and sewage lines of Eskisehir Water and Sewage Administration (EWSA) and the establishment of domestic waste treatment plants:

Sewage and rainwater systems were re-constructed; rainwater tunnels were built on both the left and right side of the Porsuk River (Bilgili, interview, 2010 in Şimşek, 2011).

Prof. Dr. Yılmaz BÜYÜKERŞEN stated that he aimed to "make a European cocktail through the projects in Porsuk River, with the coastal arrangement as in Strasbourg, the bridges a little like of St. Petersburg and Vienna, with Venice gondolas built to be used in canals in spring like Venice, having boats like Amsterdam for summer evenings" (Terzi, 2009 in Koç, 2018). This initial project has acted both as an economic and a social catalyst. "The projects started from Porsuk River and surroundings in city center, continued with the transportation mode of tramway and cultural events, developed through urban parks, restorations, hotels and museums in different places, and have resulted in awareness of the city through its living conditions and attracting tourists." (Koç, 2018).



**Figure 4.** Industrial areas and parks along the Porsuk River. *Industrial Areas*: [1] Sümerbank bought by SARAR [2] TÜLOMSAŞ [3] Sugar Plant [4] Ex-industrial Area. *Parks*: [1] Botanical Park [2] Fidanlık (Forest Tree Nursery Garden) Picnic Area [3] Regulator Picnic Area

[4] Sazova Park (Thematic Park) [5] Kanlıkavak Park [6] Statue Park [7] Kentpark. *River Islands*: [1] Ga-Ga Restaurant, [2] city island mainly redesigned as a park, [3] Lovers Park

As a result of this rehabilitation project, the Porsuk River, which acted as "a city-making landscape" in both physical and cultural terms, helped to construct a "green spine" along the city (Kılınç, Kaçar, 2016). The project allowed the rehabilitation of existing and development of new green and open areas around the river, with functions of walking, sunbathing, swimming, riding bicycle, sightseeing, etc. while providing mixed-gender forms of entertainment and bringing various social groups together.

In **Figure 4**, the present-day blue-green spine created by the Porsuk River can be seen. In the Figure, the Porsuk River (blue), Odunpazarı Historic Site (orange), the main commercial pedestrian spine of the city (yellow), the industrial areas continuing production (violet), exindustrial area (pink), and the parks are shown. As the industrial areas, from West to East, the spine begins with the former Sümerbank bought by the well-known textile firm of SARAR and continues with TÜLOMSAŞ. At the very center of the city, the ex-industrial area, consisting of restored and adaptively re-used industrial heritage crisscrosses with the Porsuk River through the main commercial pedestrian spine. Beside the River, the spine splits into branches forming more recreational and social pedestrian spines. These branches are surrounded by the River, landscape by the River, cafes and small parks. The River spine then continues and ends with the Sugar Plant in the East. In green dimension, the western part of the River spine begins with the newly established Botanical Park, active since 2014. It then continue with the restored Forest Tree Nursery Garden (Orman Fidanlığı) and Regulator, which are both used as the city's recreational areas since 1962. Between the Regulator and Sazova Park (number 4 in Figure 4), there is a river island that hosts the Ga-Ga high-class restaurant with its landscape. Sazova Park was constructed as a thematic park in 2008 by the Greater Municipality. It hosts an artificial lake, a Chateau, an aquarium, a science museum, a zoo and playgrounds. It is followed by Kanlı Kavak Park (number 5), of which establishment date is unknown. Kanlı Kavak Park has long been a daily recreation area for the city citizens. It has recently been rehabilitated. Then comes the Statute Park beside the River and TÜLOMSAŞ. Eskişehir Tepebaşı Municipality organizes International Terra-Cotta Symposium since 2001 to keep the terra-cotta tradition in Eskişehir alive. The artistic works, produced in the Symposium started to be permanently exhibited in open areas in the city beginning with the Statue Park. At the center of the town, the main pedestrian spine intersects with the River in river island number 2. The island was redesigned in the last decade, highlighting the built heritage of the city in the designed landscape. Another river island is near the Sugar Plant, called Lovers Island. It is a park designed by the Greater Municipality to express love. The green spine ends with Kentpark, a big city park.



Figure 5. TULOMSAS by the River. Photo by A. D. Kacar.

The Porsuk River, as a characteristic element of Eskisehir's urban identity has a defining role in the macro form of the city and its landscape since ancient times. Taking it as an urban element and utilizing the riverfront to develop the relation between the city and the River, help to carry on the genetic codes of the city to future generations. Similarly, industrial sites as a part of Eskisehir's urban identity are important elements for making the future of the city. The free access to the publicly owned urban parks, such as Kent Park, Lovers Island, former industrial area around the railway in the city center, Kanlıkavak Park, Sazova Park, etc. (from east to west) and their continuity in the city facilitated for an urban brand after 2000s. But, the

rehabilitation project would be more successful if the recreational areas of the industrial sites along the Porsuk River were added to the urban life. This would be possible through integrating the recreational area of Sugar Plant; the industrial history museum of TÜLOMSAŞ; and open spaces of Sümerbank, which are directly on the River. These recreation areas, which are still publicly owned in general, could be added to the urban open spaces of the city and be transformed into centers of attraction for cultural development. The "green spine" that is starting from Kent Park and ending at Sazova Park would be improved through the integration of industrial heritage in order to provide a variety of functions in the city center and be broadened through the picnic area (Regulator) in the north-west for a diversity of activities. This physical transformation of the urban environment and the "Amsterdam type boats and Venice type gondolas." are mentioned to gave the city a "European" identity and turned out to be a trademark. This attracted the interest of the private sector and the city is supported to be a tourism destination<sup>vi</sup>. After the mentioned project, with its identity of a European city, "Eskisehir Continues to Set an Example for Europe" according to the greater municipality of Eskisehir. To the news at the website of the municipality, visitors from the capital of the European Union, Brussels came to Eskisehir in order to implement these revitalization efforts to a project for the Anderlecht canal, which was approved by the Brussels Municipal Council on March 27, 2014.vii

While this urban renewal project included the landscape design of approximately 10 km of the river, the industrial heritage sites became more perceived through the waterfront (**Figure 5**). Although the project enables a touristic on-river transportation while combining industrial sites along itself, public or touristic transportation between the industrial sites could not be provided yet. Since the publicly-owned enterprises, such as the Sumerbank (now a private enterprise of SARAR), TULOMSAS and Sugar Plant are located along the river, a boat trip or public transportation on Porsuk, connecting these industrial sites would be more effective for an innovative urban renewal project at least. These three significant and characteristic industrial enterprises of the Republic would be given more importance today, by the help of this either touristic or a functional water transportation. The relationship with the river does not support the relationship with these symbols of industrial past yet. However, the growing thermal and health tourism along with congress industry in Eskisehir would be enhanced by adding industrial heritage to define the future of the city. This would be a tool of highlighting the industrial culture and the cultural identity of the city and help proposing a new model for Eskisehir.

### **Conclusion**

Eskisehir is located in central Anatolia. Although this modest city is far away from the sea surrounding the lands of Turkey, it is one of the few cities that is mentioned with its waterfront after this project. Wharfs and new bridges has been constructed on the river in order to enjoy "riverfront" in the city center. Before that, the factories and enterprises that were established on Porsuk during the industrialization process of Turkey, caused the pollution of the River. The print cloth factory (Sumerbank) was the main source of pollution and transformed the color of the river, according to dye color. Sugar Plant, TULOMSAS, Sumerbank and owing to the civil servants employed in the state institutions and in the military base. Although these industrial buildings used to cause environmental pollution in the past, they are a part of the collective memory today and are adding much to the urban identity.

Eskişehir used its two main assets in urban strategies that directly affect its city branding and image building process. One is Porsuk River as a natural and geographical asset which connects various green areas, entertainment as an interrelation socio-recreational place. The second is Odunpazarı as a historical and traditional urban settlement which provides various museums, entertainment as an interrelation socio-cultural place.

The rehabilitation of the Porsuk River let the unification of these industrial sites, which are directly on the river. Short trip itineraries has been patterned for touristic Venetian style gondolas and Amsterdam boats, but this doesn't include the industrial sites. Either touristic or a functional water transportation may attract new comers for a site seeing by the river. The need for increasing public participation for local governments' projects to be established by taking the citizens' discourses into consideration, is still substantial for the transformation of water into a center of attraction. The artifacts, defining the singularity of the city, should therefore be carefully examined in the process of urban transformation. Porsuk River is a socioculturally and economically important natural artifact in Eskisehir's historical process, and the concept "riverfront" is added into the city's genetic codes again.

### References

Aksoylu, Sevin (2012) "City Marketing and Urban Branding Through Urban Regeneration and Image Making as a Case of Eskisehir-Turkey", *IUP Journal of Architecture*.

Atuk, Ahmet. (2002) 101 ESKİŞEHİR (Kartpostallarla Eskişehir), Eskişehir Odunpazarı Belediyesi.

Kaçar, Ayşe Duygu (2017) "Legibility of Industrial Sites: Way-Finding in The Ruhr, The European Capital of Culture 2010, As A Model for Industrial Sites in Eskişehir, Turkey". Sustainable Development and Planning IX. *WIT Transactions on Ecology and The Environment*, Vol 226, © 2017 WIT Press.

Kilinç, Kıvanç & KAÇAR, Ayse Duygu (2016) "In pursuit of a European city Competing landscapes of Eskişehir's Riverfront". *Contemporary Urban Landscapes of the Middle East* (Ed. GHARIPOUR, Mohammad), Routledge, Cornwall, pp. 45-66.

Koç, Evrim (2018) "City Branding / Image Building as A New Paradigm: The Case of Eskişehir" Unpublished PhD Thesis. The Graduate School of Natural and Applied Sciences, Middle East Technical University.

Özaslan, (2011) "The Role of Architectural History in Building Modern Turkish Architecture". Journal of International Social Research.

Şimşek, Gül (2011) "An Approach to Urban River Rehabilitation for Coexistence of River and Its Respective City: Porsuk River Case and City of Eskişehir" Unpublished PhD Thesis. The Graduate School of Natural and Applied Sciences, Middle East Technical University.

Tülce, Ayten Hüma (2012): The conservation principles for the brick and tile factories in Eskişehir. Unpublished Master's Thesis. The Graduate School of Natural and Applied Sciences, Middle East Technical University.

\_

i www.tulomsas.com.tr/main.php?kid=67, accessed on 03.08.2018

ii www.turkseker.gov.tr/Tarihce.aspx, accessed on 03.08.2018

iii <www.eskisehirkulturturizm.gov.tr/TR,70884/mesire-yerleri.html>, accessed on 03.08.2018

iv <sarev.sarar.com> Accessed on 01.08.2018

<sup>&</sup>lt;sup>v</sup> Bizim Şehir 19 (October 2008): 13.

vi Bizim Şehir, 20, 3 (no date is available). Bizim Şehir is the official bulletin of Metropolitan Municipality of Eskişehir, accessed September 20, 2014, <a href="http://www.eskisehir-bld.gov.tr/bizim\_sehir.php">http://www.eskisehir-bld.gov.tr/bizim\_sehir.php</a>; also see, Utku Tekin, "Eskişehir'de Turizm Devrimi" [The Tourism Revolution in Eskişehir], Bizim Şehir 33, 14 (no date is available), accessed May 25, 2014, <a href="http://www.eskisehir-bld.gov.tr/bizimsehir/33/bizimsehir.pdf">http://www.eskisehir-bld.gov.tr/bizimsehir/33/bizimsehir.pdf</a>.

vii "Brüksel Belediye Meclisi Eskişehir Porsuk Modelini Resmen Onayladı. Eskişehir Avrupa'ya Örnek Olmaya Devam Ediyor," accessed September 20, 2014, http://www.eskisehir-bld.gov.tr/haber\_dvm.php?resim\_id=348015 (28.03.2014).