

## The Neglected River: Bridging the West & the East

<sup>1\*</sup> Assoc. Prof. Dr. **Beril Özmen**,

<sup>1</sup> *Adana Science and Technology University, Turkey*

*E-mail<sup>1</sup>: bozmen@atu.edu.tr*

<sup>2</sup> B.Arch. Master Student **Melike Ezgi Gençođlan**

<sup>2</sup> *Adana Science and Technology University, Turkey*

*E-mail<sup>2</sup>: 185001088@ogr.adanabtu.edu.tr*

<sup>3</sup> B.Arch. Master Student **Zahide Rveyda Sertkaya**

<sup>3</sup> *Adana Science and Technology University, Turkey*

*E-mail<sup>3</sup>: 185001085@ogr.adanabtu.edu.tr*

### Abstract

In our era, borders have disappeared due to the intensity of human mobility and interaction. In fact, existing borders on maps are defined by political, economic, and cultural agreements. Meanwhile, territorial boundaries are -consist of both concrete and organic components- in a constant change and unlikely to determine their limits precisely. Urban territories have usually undergone unplanned developments through population growth. This situation constructs a drastic impact on urban expansion so that some parts emerging as non-organized areas, which indicate disconnections, and causing divided districts and territories in the same city margins. This study aimed ait to investigate issues, which influence Adana City by the River Seyhan as a natural element. Actually, the river should have been the most important element for the development of the city, however, it is perceived as a factor that divides and limits the city, not a connecting one. Thus, one may think of the river has left unattended while Adana struggles with problems with transportation, the community, the social life, and culture within its development. Therefore, literature review and realities of urban districts throughout the historical development will be explored in terms of bridging the city. Finally, the thematic emphasis will be made to assess the emergence of disconnections in the west-east axis of Adana in order to preserve urban integrity for the future.

**Keywords:** Boundaries; East & West Riverbanks; Bridges; Urban Integrity; Adana.

### 1. Disconnectedness as the Problem of Urban Integrity

The Eastern Mediterranean city Adana, which is the focus of examination through other samples as one of the secondary metropolises in Turkey with one and a half million of residents in the city core, where residential quarters varies from traditional low-rise houses to the high apartment blocks, having agricultural fields in-between areas. The city has arrived at a great deal difference between East and West regions in their development phases. It established in the west of the river as the base of existence and points an agricultural type of civilization and known as a geographical entity -the fertile ukurova

/ Cilicia- constructed its physical boundaries depend on its own historical facts. This disperse city owns plenty of land and production area with irrigation canals, an important river, its dam and a gigantic reservoir. For long years, historical quarter survived adjacent to the west waterfront, it did not spread to the East districts, except that the very first bridge (Stone Bridge) constructed by the Roman Empire due to connection of famous Silk Road from the East to the West in ancient times. Nowadays, it can be observed that the city has attempted to connect two sides of the river through various bridges in the continuation with a range of roads, high streets and intercity highways. However, it shows weaknesses in establishing passageways between riverbanks due to the situation addressing uneven development took place in two sides of the city since 1980s. River Seyhan generates boundaries, being at a loss to take sides, consequently abandoned and disused.

Thus, the aim of this study is to investigate the parameters of developmental differences affecting the city growth on the riversides with an emphasis of a neglected river itself. In the study, it will be attempted to explain causes and results in the bridging the sides due to mainly local imperatives.

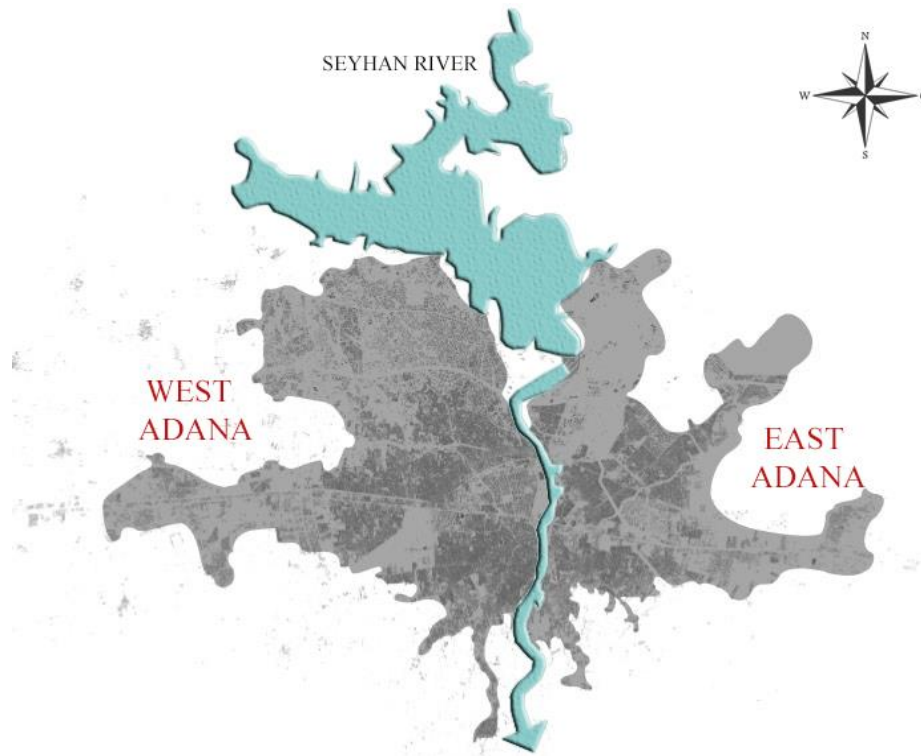
## **2. Bordering the River versus Connection the Sides**

The concept of the border is examined; three kinds of boundaries are obtained including physical, geographical and psychological. Borders are indicating limits and restrictions in any closure. Generally speaking in architecture, floors and walls provide space separation in a building as physical boundaries. Geographical or natural boundaries may shape cities, at the same time, control our territories. These limiting elements can be either natural topographies or any built components dividing the places where we live in. Furthermore, there are borders that are the product of the human mind that we can describe as the psychological boundaries. These are usually formed by cultural factors, first of all, together with economic, sociological causes in the given area.

As foci of many disciplines, bordering concept is the starting point of this study. When it is necessary to examine this concept from an urban perspective, the descriptions of the theory launched by Kevin Lynch (1960) are of significance. Intersections between a number of components which separate urban districts and points out dissimilar spaces that are perceived as linear. These are called boundaries. They are considered as elements, which surround any physical medium to define the architecture (Meiss, 1986). This understanding of space definition also supports the idea of creating sustained forms for the city parts with negotiable limits. Connections usually appear in transition areas, which are actually in junctions and nodes or in-between sectors as the most intense areas. Beyond being expressed by permanent lines, this configurations function in the creation of continuity in urban structures such as bridges over the river in the case of Adana. Establishing transitive boundaries, the distinction between

intersections may lead to significant divergences and weakening of connections as we can see west and east riverbanks of Seyhan.

From another perspective of the border, this concept is thought to be a product of modernity. Rapidly evolving production technologies as well as increased subsistence sources such as periodically paid works rather than only agricultural earning. Having significantly changed all type of settlements either a village or a city. Even that, rural and urban divide is no longer negotiable in numerous geographies. With the effect of globalization, even inter-national and national borders began to disappear and conceptualize. In a way that limits on the map and in the mind are in fact vanished by various political, economic, cultural and similar interactions. Factors such as the multiplication of the population and the increase of urban essentials rapidly change the urban form. This situation both eliminates and place boundaries in-between considering their dynamic structure Thus, they triggered to emerge disconnected and divided areas in the perceived margins. In order to evaluate the urban boundaries physically, it is necessary to analyze their existing images and functions in order to perceive exact connections and containment to find some approaches to pursue to get urban integrity.



**Figure 1:** Seyhan River & Dam Reservoir in the City of Adana (Gençoğlan, 2019).

In this article, the River as a geographical defining element is investigated with a different perspective, which may improve both the riversides and Adana's urban configuration problems. Beyond being a

geographical element, it should be appropriated as a remarkable element in the city with its edging feature, at the same time, as a linking factor. The contradictory power of a border should be taken into account as well as joining the sides for urban integrity. In reality, the river is perceived as a factor that divides and limits the city (Figure 1), though it is one of the most notable elements for the development planning and orientation of the city of Adana. Thus, the underestimated influence of the River Seyhan has been emphasized to show its present situation as a neglected impression of the issue in order to point out authorities and actors of the city.

### **3. Knowing Adana**

Çukurova region has hosted many civilizations as a cradle of civilizations. Çukurova becomes a center of attraction in every period due to its presence on important migration and trade routes and it attracts the attention of the strong civilizations. According to the view from Europe, Adana has known as the city of forests. Furthermore, it is seen as the gate that Alexander the Great used to reach Mesopotamia. Relying on the world history, Adana is the bridge that the first people from Africa to reach Europe. Being located in an isolated area surrounded by fertile soils, rivers, and mountains, being on the route of trade routes – like well-known Silk Road- is one of the most prominent features of the city of Adana. According to Saban (2006: 173) trade routes have been one of the important factors affecting the development of cities in almost every period. In the 15th century, Adana had increased its strategic importance through a caravan commercial route connecting Istanbul with Egypt, one of the most important transit trade axes.

The history of Adana dates back to antiquity such as many cities in Anatolia. Adana is thought to have a history of about four thousand years (Saban, 2017; 3). It is thought that the Hittite Kingdom reigned in the Adana region thirty-six centuries ago. Archaeological studies show that Adana is a great Hittite town (Altay, 1966). Afterward, the active powers that dominated the region were the Assyrian dynasty, Iran, Alexander the Great, Salafists, and Egypt. B.C. In the 12th century, the area joined to the Roman lands, M.S. In 395 BC, Rome was divided into Eastern Roman (Byzantine) borders. Especially, this region has become an important trade center. Many historical buildings, which have important importance in Adana city image constructed such as ancient Stone Bridge. The most developed period of the region is considered to be during the Romans when the traces of the structure are followed. It has been determined that the bridges, roads and irrigation facilities, which are important for the city, have reached today. The region, which was dominated by Seljuk's ten centuries ago, witnessed many wars that changed hands between the Byzantine Empire and the Armenian Principality of Cilicia. The frequent-changing administrations have contributed to a large number of battles and destruction in the

province, as well as enrichment of the region's cultural heritage (URL 1). The Ramadanids, also known as the Ramadanid dynasty, Emirate of Ramadan, and Ramadanid principality (Modern Turkish: Ramazanoğulları, Ramazan and Ramazanoğulları Beyliği), was one of the Anatolian states, its capital was in Adana. It was one of the frontier emirates established by Oghuz Turks clans after the decline of Seljuk Sultanate of Rum (URL 1). 'Bey' or 'Emir' -the Ruler- of Ramadanids and his family from the Bozok Turcoman, dominated the South-East Anatolia, which passed to the Mameluke administration seven centuries ago. Then the Egyptian joined this territory for the Ramazanoğulları Principality ruled for a while. During this period, the major mosque, madrasah and social complexes including health services and social services and major development initiatives were realized.

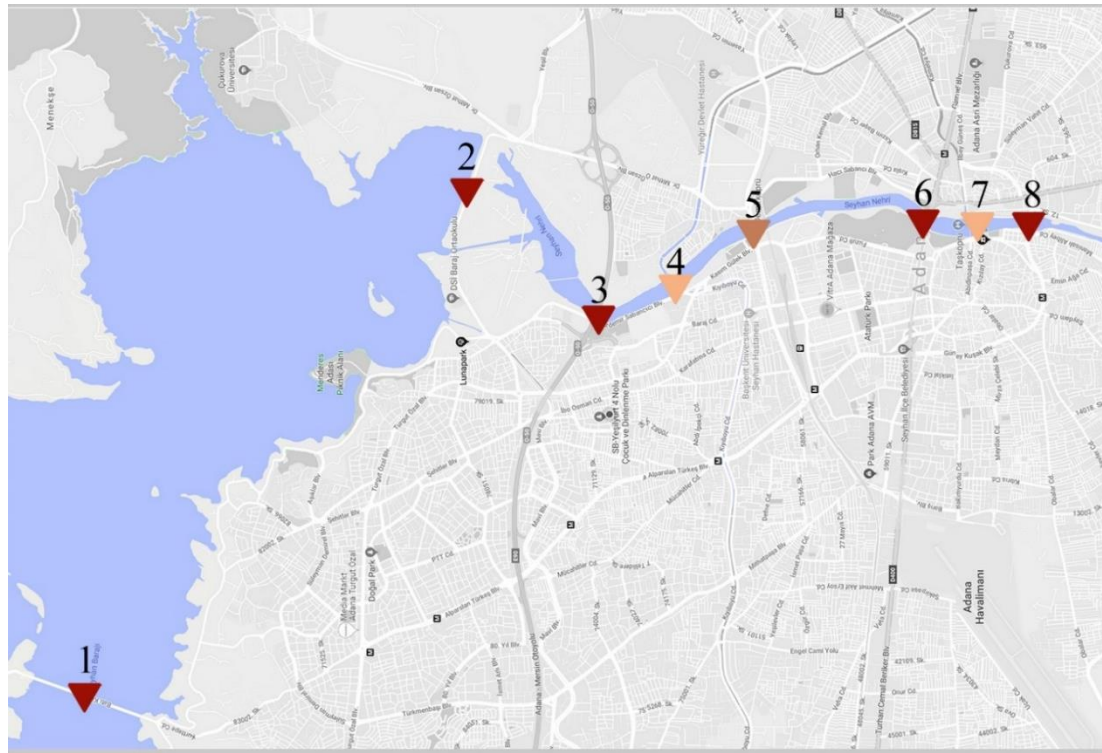
In 1867, the Ottoman-dominated Adana became a province with the merger of the environmental bays (Kozan-Cabel-i Bereket-Icil). Ibrahim Pasha took possession of the rebellions between the years 1833-1840, Adana was connected to the Ottoman Empire in 1841 (Halaçoğlu, 2004). Because of its political, geographical and commercial importance, Adana has been the focus of attention of the forces, which has a desire to own and rule the region. For this reason, Adana added an outstanding value of the region with its diversity of ethnic elements and unique works left by different nations. The Industrial Revolution, which started the middle of 18<sup>th</sup> Century and accelerated in mid 19<sup>th</sup> century, has been the pioneer of many changes. The number of machines provide mass production techniques, and this follows boosted raw material demand. Especially, the speeding up of the textile industry has brought the problem of insufficient cotton exports, as one of the most important industrial raw materials of the period (Korhan, 2019; 59). The civil war between 1861-1865 in America changed the course of the cotton trade. The search for fast accessible and high-quality cotton has begun in Europe, particularly in England. This situation has led to an increase in the importance of Adana in cotton production. The road to cotton trade was changed in the American Civil War in 1861-1865. Especially in England, the search for fast accessible and high-quality cotton has begun in Europe. This situation has led to an increase in the importance of Adana in cotton production. Because, Çukurova Plain, where adana is located, has been known as having very fertile land and appropriate climate for cotton production. In the commercial and economic development of the city, the cotton produced in Adana and its surroundings plays an important role. In the period of the Ottoman Empire, cotton farming was government policy; the government took steps and gave grants to support the farmer (Özgülven, 1977; in Korhan, 2019: 59). Adana, which has developed as an agricultural city, has been developed with the migration of agriculture-based industry as a result of the increase in the cheap labor population and the strengthening of the land-rich families. After World War II, eighty percent of the Turkish economy

was devoted to agriculture, and USA accelerated the mechanization of agricultural machinery with the Marshall help. The fact that Adana is an important agricultural city has a great share of Marshall benefits. Agricultural mechanization accelerated by gaining momentum with the help of Turkey after the war.

#### **4. Connections through Bridges**

Throughout history, Adana province own old Cilicia / Cukurova plains, valleys and mountains was assumed to be a bridge between east and west. The regions separated by geographical elements are composed of more organic components such as rivers, mountains, and valleys are being overcome by developing technological facilities. Seyhan the River has literally been the separating element from the west and the east banks. The dream of crossing the river was also always very important as the time being in every period of the city, considering the gigantic Toros Mountains have not supply gateways until 1873, starting with a railway system between Bagdat to Istanbul Bagdat in Ottoman reign. The history shows that the river was the starting point to a tremendous challenge for people who approaching him/her from both East and West. Everything could be possible if human were able to cross the river.

In these conditions, there are ten bridges completed so far in Adana City (Figure 2). They are being used as a normal vehicular road, railway and pedestrian roads passing through on the Seyhan River. The earliest bridge and the very important historical one from the ancient times is the Stone Bridge has been used as both the motorway and pedestrian road in different periods. There are three more of pedestrian bridges constructed by the Municipality. Seyhan Dam Bridge is the second pedestrian bridge (1943) that is used as a pedestrian way at the same time usage of generating energy from the Seyhan reservoir. The others are Sinan Pasha Suspension Bridge and Youth Bridge in between 1990-2000 built. The crossing of the city's with railway to other Anatolian cities on the river is providing by the Iron Bridge. It is only one supporting train connections, actually has not been developed since 1912 due to preferring motorway system in all over the country. All the other bridges existing in the city are connected to different points of urban areas as the usage of vehicular roads. These are built in the Republican period of Turkey from 1950s to the third Millennium. These bridges named as Dam / DSİ Bridge (1956), Girne / Kennedy Bridge (1960), Regulator Bridge (1980), Highway Bridge (2002) and West/ Çatalan Bridge (2002). These bridges will be viewed and examined one by one in more details in the following chapter (Figure 3).



**LEGEND**    ▼ Use of Vehicle    ▼ Use of Train Way    ▼ Use of Pedestrian

**Figure 2.** Functional Use of Bridges in Seyhan River and Reservoir (Gençoğlan, 2019).

#### 4.1 Stone Bridge / Taşköprü

It is known as the Greek or Roman Bridge and connecting the Middle East to the Balkans during the periods, is considered to be of critical importance. Interestingly, it is recorded numerous bridges were built and destroyed in the same place over and over several times in the history. It is thought that the early bridges were built with the wooden constructions, which were built on stone feet, which is known as commonly applied by Romans style (Ramazanoğlu, 2009; 307). The first bridge is dated to the 4th century. The architect Auxentus has built Stone Bridge, which connects the western (Seyhan District Municipal Authority) and eastern (Yüreğir District Municipal Authority) sides in A.C. 384. The construction of the bridge is carried out in 2002 as a result of the joint initiative of TEKFEN Construction and Installation Contractor with the company of the General Directorate of Highways (URL 2). The bridge was restored and closed to vehicle traffic in 2007 (URL 3). Nowadays, the bridge only uses as a pedestrian road due to conservation of the historical heritage of Adana.

#### 4.2 Girne / Kennedy Bridge

Stone Bridge cannot be sufficient for the developing city. In the 1960s, with the help of American aid –according to Marshall Plan-, a new bridge, known today as Girne Bridge, is being built. When US

President John F. Kennedy was assassinated, it was proposed to call it the Kennedy Bridge. However, this name has not approved by the public, owing to the pro-Greek position of the United States in the Cyprus question. Because, Girne, which is the city, where 1974 Cyprus Peace Operation started, named is given to the bridge after. Then name of Girne has become permanent. It connects to D 400 highway to the western and the eastern cities (URL 4).

#### **4.3 Highway Bridge**

The most important factor in taking the present form of the city center of Adana is the improvement of the marshes surrounding the city in the 19th century (Saban, 2010). Another important point is these areas are converted into agricultural land. Adana city texture has changed rapidly with the works and policies of Republic Period in the 20th century. This development is accepted as the beginning of the divisions that cause serious disconnection problems within the city. The highway bridge, which is an important connecting element built in Adana, is an element that unites the east of the city on the east-west axis but separates it in the north-south direction. This bridge, which can be considered as a manifestation of the Silk Road, is basically the bridge that takes the function of being the bridge between the east and west of the city of Adana. For all that, Adana was transformed into a transit city. This bridge connects the Middle East to Europe with an uninterrupted axis. As a result, this trade axis with a loaded volume passes through it, without giving it any benefit, without touching on Adana.

#### **4.4 Regulator Bridge**

As the highway bridge checkouts with the global era, the Regulator Bridge, which conforms to the politics of the 1980s, has connected one region of the city to another region in its own language. Although the detailed information about the regulator bridge cannot be reached, it is necessary to examine the meaning of the term of the word regulator. The regulator is a system that should be used if the structures with different functions have to use the same transformer, especially in areas where the transformer distances are too far. Actually, with this feature, it is possible to observe the irony between the regulator systems connecting the distal sections to get the right energy and the system connecting the two sides of the river.

#### **4.5 Seyhan Dam /DSİ Bridge**

The Seyhan dam bridge was built to generate pure energy and was used for pedestrian use. This bridge, which represents the track of the Early Republican Period, is now open to pedestrian traffic. This bridge, which represents the track of the Early Republican Period, was now open to pedestrian traffic. This bridge, formerly the Seyhan Regulator, can be reached from the west to the west of Adana by a



walk that is less than two minutes and accompanied by water voices. This bridge provides access from the west to the Köprülü Cultural Park in the Yüreğir region (Seyhan)



1: Çatalan Bridge



2: DSİ Dam Bridge



3: Highway Bridge



4: Seyhan Dam(DSİ) Bridge



5: Iron Bridge



6: Girne Bridge



7: Stone Bridge



8: Regulator Bridge

**Figure 3.** View of Bridges in Adana (Gençoğlan, 2019).

#### 4.6 Iron Bridge

Another bridge in the city of Adana is the iron bridge. With the developing technology, the wagons that were filled from the Middle East were carried out in order to reach Europe in the fastest way. It is aimed to provide Istanbul-Baghdad line. This bridge, which was found to be alive during the period when steel was steel, is perhaps the most imaginative bridge structure for Adana.

#### **4.7 Dam/DSİ Bridge**

Dam Bridge was built on the soil set of Seyhan Rservoir in 1956, designed for intense vehicle traffic. However, today Çukurova University with a capacity of over 35000 students, Adana Alparslan Türkeş Science and Technology University which has a capacity of over 3000, Adana City Hospital with approximately 6000 patients per day, Balcalı Education and Research Hospital with its 3500 patients and 33000 workers. Addition of new stadium is also in this connection way. This situation increases the load of the traffic and danger, especially in this rely on the Seyhan Dam retaining walls.






#### **4.8 West / Çatalan Bridge**

Another bridge on the Seyhan Dam Reservoir is the West Bridge. 1575 metre long bridge is known as Turkey's the longest bridge. The bridge also named Çatalan, which was built within the scope of the Çatalan Drinking Water Project. The main purpose of the bridge is to pass the water pipes as well as using this connection as a piece of public transportation through the north of the seyhan reservoir lake. The construction of the bridge, which was started in 1998, was completed in 2002. A consortium of Lurgi Bamag-STFA-ALKE carried out the project (URL 5).






#### **5. Conclusion**

Taking everything into account, the relationship between the city's main arteries and the bridges on the Seyhan River has been discussed due to the problem of urban disconnectedness between the West and the East parts in the city of Adana. It is seen from the study that the city does not have the integrity with this natural waterfront formation, which should be an important criterion in urban design and planning. While urban growth occurs, distinctions are made in some regions within the city in terms of land-use for different quarters. The relationships between the edges, nodes and districts are comprehended by usage of those associations clearly depend on the contemporary conditions. As discussed earlier, the issue of urban boundaries was discussed in the context of the city image as one of the theories of Lynch. As long as the images can function within the city, they can provide integrity in the city (Table 1, 2).

**Table 1.** Bridges with Pedestrian & Railway Connections (Gençođlan, 2019).

Name of Bridge	Image	Year	Actors	Usage Area
Stone Bridge		A.C 384	Architect Auxentus	It is used as a <b>pedestrian way</b> .
Iron Bridge		1912	Not Reached	It is used as a <b>railway</b> .
Seyhan Dam/DSİ Bridge		1943	Municipality	It is used as a <b>pedestrian way</b> .
Sinanpaşa Suspended Bridge		1998	Municipality	It is used as a <b>pedestrian way</b> .
Youth Bridge		Not Reached	Municipality	It is used as a <b>pedestrian way</b> .

**Table 2.** Bridges with Various Vehicular Connections (Gençođlan, 2019).

Name of Bridge	Image	Year	Actors	Usage Area
Dam/DSİ Bridge		1956	Municipality	It is used as a <b>motorway</b> .
Girne Bridge		1960	Municipality	It is used as a <b>motorway</b> .
Regulator Bridge		1980	Municipality	It is used as a <b>motorway</b> .
Highway Bridge		2002	TEKFEN Construction and Installation Contractor	It is used as a <b>motorway</b> .
West Bridge		2002	Municipality	It is used as a <b>motorway</b> .

Seyhan River described as a neglected river in the urban setting. Because solutions have been implemented so far, it did not provide meaningful experience to ensure that the river is important reference point to develop city plan for quality of living. Since the city was founded, there has always been an effort to unite the two sides of the river. The number of bridges in the city has been increasing

since the foundation of the Stone Bridge. These bridges within the boundaries of the city have not been able to establish integrity with the city. They remained as devices just the river only. In this case, you cannot connect with the city, because it is only for transit purposes like the old days. In the present day, with the increasing population, the riverside areas are used to meet the lack of social facilities in the city and the needs of the health structure. In line with these increasing demands, connecting the West Adana to East Adana gives new insights to the city in the framework of desirable conditions. In the absence of the decisions to be taken within the Master Plan, the problematic of the connections is even more evident. Due to geographic formations, there is a similar situation in many European cities as in Adana, however they have good terms of planning. They have bridges that can be exemplary in terms of the integrity they establish with the city. The bridges that reflect the characteristics of the periods they are made and the architectural designs are the important reference points of these cities. In some cities, linking important public buildings and city centers could be another reason for their integration them into the city.

Considering the data obtained from the study, it can be concluded that urban connections and boundaries should be well analyzed. Configuration of the city, and new required facilities should be decided by forward-thinking plans in different scales. A strategic view on how cities can be reconstructed with the urban actors that paves ways for a sound project should be set relying on the local realities. Important features exist in Adana to be used to create visions. For instance, Adana has the Stone Bridge, which is accepted the world's earliest bridge sustain its function even today for public transportation and pedestrian traffic. The Iron Bridge, which was used to connect Berlin-Baghdad railway in the history. The West Bridge is the longest bridge in Turkey. Finally, we point out that contemporary practices need to develop in accordance with a good vision for Adana get benefit of the both riversides. The vision created base on cultural and social background of the city should be established, instead of haphazard master plans according to the top-to down decisions.

## References

- Altay H., (1966). *Tepebağ Mound Report*, Adana Museum Archive, Adana
- Halaçoğlu Y., (2004). History of Adana, Ç.Ü. Turcology Research, 11  
[http://turkoloji.cu.edu.tr/CUKUROVA/makaleler/halacoglu\\_1.pdf](http://turkoloji.cu.edu.tr/CUKUROVA/makaleler/halacoglu_1.pdf)
- Korhan T., (2019). American Influence In Adana During The Democratic Party, Journal of Electronic Social Sciences, Winter-2019, Volume: 18, Issue:69, 58-68. ISBN:2148-1415.  
[http://www.uysad.com/FileUpload/as907385/File/3tugba\\_korhan\\_demokrat\\_parti\\_donemind\\_e\\_adanada\\_amerikan\\_etikisi\\_uzerine\\_\\_.pdf](http://www.uysad.com/FileUpload/as907385/File/3tugba_korhan_demokrat_parti_donemind_e_adanada_amerikan_etikisi_uzerine__.pdf)

- Lynch K., (1960). *The Image of The City, Translated By İrem Başaran*, Turkish Business Bank Culture Publications, 69-74. ISBN: 978-9944-88-984-3
- Meiss P., (1986). *Elements of Architecture: from Form to Place*, New York: Van Nostrand ISBN: 978-0419159407, <https://www.amazon.com/Elements-Architecture-Pierre-von-Meiss/dp/0419159401>
- Özgüven A., (1977). *Agricultural Economics and Policy*. Bursa: Uludag University. <https://www.filizkitavevi.com/Tarim-Ekonomisi-ve-Avrupa-Birligi,PR-179.html>
- Ramazanoğlu G., (2009). Roman Bridge in Adana: Taşköprü, Ç.Ü. Journal of the Institute of Social Sciences, Volume 18, Issue 1, 305-322. <https://dergipark.org.tr/download/article-file/50513>
- Saban D., F., (2006). XVI. Findings on the Physical Structure of the City of Adana in the 17th Century, Çukurova University Journal of Social Sciences Institute, Volume 15, Issue 3 (Special Issue of Archeology), 161-182. <https://docplayer.biz.tr/14574216-Xvi-yuzyilda-adana-kentinin-fiziksel-yapisina-dair-bulgular.html>
- Saban Ökesli, D., (2010). Herman Jansen's Plans in Adana (South Architecture, December 2010, Issue 2, 46-52. DOI:10.4305 METU JFA 2009/2 45.
- Saban, D., F., (2017). *Traditional Neighborhoods, Streets, Buildings of Adana* (Sonçağ Printing, Ankara) ISBN: 6052396223
- Yaktı, Ö., (2014). American Civil War and Adana: The Effect of Cotton Farming on the Modernization Process of Adana, Ankara University Turkish Revolution History Institute Atatürk Yolu Magazine, Issue:54, Spring 2013, 273-296. DOI: 10.1501 <http://dergiler.ankara.edu.tr/dergiler/45/1993/20824.pdf>
- URL1: <https://en.wikipedia.org/wiki/Ramazanids> (20.05.2019)
- URL2: [http://www.tekfeninsaat.com.tr/TR/otoyol\\_detay.asp?id=2](http://www.tekfeninsaat.com.tr/TR/otoyol_detay.asp?id=2) (06.05.2019)
- URL3: <https://www.turizminsesi.com/haber/adanada-roma-doneminden-kalan-1700-yillik-tarih-201.htm> (06.05.2019)
- URL4: <http://wowturkey.com/forum/viewtopic.php?t=162706>. (06.05.2019)
- URL5: <http://www.wikizero.biz/index.php?q=aHR0cHM6Ly90ci53aWtpcGVkaWEub3JnL3dpa2kvw4dhdGFsYW5fS8O2cHLDvHPDvA> (20.05.2019)