

Chronological Problems of the Adana Taşköprü

Adana Taşköprü'nün Kronolojik Problemleri

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Abstract: One of the most important settlements of Cilicia, which is an important connection point between East and West, is Adana. The international road route, which reaches Tarsus and then Adana via Gülek, turns east from here. Located on this route, Taşköprü (= Stone Bridge) provides a connection over the Sarus river. Although the arches of the bridge, which consists of twenty-one spans together with the discharging arches, vary in form, the architectural style generally exhibits Roman features. The bridge, which is known to have been repaired many times after the first construction, contains arches from different periods as well as early period remains. Although it is generally accepted that its construction was carried out in the Roman Period, it is controversial when exactly it should be dated to and which Imperial period. Some researchers associate the bridge with the historical context and date it to the Hadrianic Period. On the other hand, a group of researchers think that the bridge was built in the IVth century A.D., based on the name of the Architect Auxentios mentioned in the inscription. The aim of the study is to make a new proposal about when Taşköprü was built. Considering the importance of the road it connects and the political process, it turns out that both dates suggested for the structure are too late. In addition, the discharging arches on the bridge piers allow for a more accurate dating of the structure. In short, considering the architectural features and the political process, it becomes possible to determine the construction date of the bridge and to make a new proposal.

Keywords: Adana • Taşköprü • Roman Imperial Period • Bridge Architecture • Arch and Vault

Öz: Doğu ve Batı arasında önemli bir bağlantı noktası olan Cilicia'nın en önemli yerleşimlerinden biri de Adana'dır. Gülek üzerinden Tarsus'a ve ardından Adana'ya ulaşan uluslararası güzergâh, buradan doğuya yönelmektedir. Bu güzergâh üzerinde konumlanan Taşköprü, Sarus Nehri üzerinden bağlantı sağlamaktadır. Hafifletme kemerleri ile birlikte yirmi bir açıklıktan oluşan köprünün kemerleri form bakımından çeşitlilik gösterse de mimari üslubu, genel olarak Roma özellikleri sergilemektedir. İlk inşanın ardından birçok kez onarıldığı bilinen köprü, farklı dönemlere ait kemer uygulamaları ile birlikte erken döneme ait kalıntılar da barındırmaktadır. Genel olarak inşasının Roma Dönemi'nde gerçekleştirildiği kabul edilse de tam olarak ne zaman ve hangi imparator dönemine tarihlenmesi gerektiği hususu tartışmalıdır. Bazı araştırmacılar; köprüyü tarihsel süreçle ilişkilendirerek Hadrianus dönemine tarihlemekteyler. Buna karşın bir grup araştırmacı, köprüye ait bir yazıtta geçen Mimar Aukentios isminden hareketle köprünün MS IV. yüzyılda inşa edildiğini düşünmektedir. Çalışmanın amacı Taşköprü'nün ne zaman inşa edildiğine yönelik yeni bir öneride bulunmaktır. Bağladığı yolun önemi ve politik süreç dikkate alındığında, yapı için önerilen her iki tarihin de geç olduğu ortaya çıkmaktadır. Ayrıca köprü ayakları üzerindeki hafifletme kemerleri yapının daha isabetli tarihlenmesine olanak sağlamaktadır. Kısacası mimari özellikler ve politik süreç dikkate alınarak köprünün inşa tarihine yönelik saptama yapmak ve yeni bir öneride bulunmak mümkün hâle gelmektedir.

Anahtar Kelimeler: Adana • Taşköprü • Roma İmparatorluk Dönemi • Köprü Mimarisi • Kemer ve Tonoz

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Evidence for the existence of an earlier bridge over the Seyhan (= Sarus) river, where Taşköprü, the subject of this study, is located, can be found in Hittite texts. In these historical texts, it is stated that the Hittite King Arnuwanda I (1400-1370 B.C.) fortified several settlements, including Adana, which was equated with Adaniya, and built a bridge over the river¹.

It is difficult to make any inferences about where and with what kind of material the Hittite bridge was built. However, it is possible to make a new suggestion about the construction date and repair phases of Taşköprü, which has survived to the present day and is accepted to have been built during the Roman Period. Three different suggestions for the construction date of Taşköprü, which consists of a total of twenty-one openings, seven of which are discharging arches, are clear. The first construction of the Roman structure is attributed to the IInd century A.D.², the IVth century A.D., and more specifically to the year 384 A.D.³ and the VIth century AD, for a variety of reasons⁴.

When determining the date of construction of a Roman bridge, it should be noted that the organic link between the bridges and the roads were shaped mainly by military activity. In this context, it is important to know that a defense system was established along the Euphrates (= Euphrates) border line (= limes) as early as 70 A.D., in relation to the turmoil on the eastern border⁵. Since one of the most important military routes providing access to the eastern border passes through Adana, it is understood that all suggestions for the dating of Taşköprü point to a rather late date. Therefore, it is important to evaluate the historical and political context of the region together with its architectural features in order to clarify the question of the construction date of the bridge.

In the historical context, the name of the city of Adana, where Taşköprü is located, stands out in Pompeius' campaign of 67 B.C., as it is known that some of the pirates were settled in Adana and in the surrounding cities⁶.

After the pirate expedition, the administration of Cilicia Pedias was handed over to Tarkondimotos, a former pirate leader⁷. Cicero, who served as the Governor of Cilicia in 51 B.C. refers to Tarkondimotos as "*a true friend of the Roman people*"⁸. It is known that the Tarkondimotos Dynasty provided control on behalf of Rome, especially in the Cilicia Pedias, until 17 A.D.⁹ One of the most important events in the history of this vassal kingdom was the visit of Emperor Augustus to Cilicia Pedias in 19 B.C. It is thought that Augustus acted in cooperation with this local dynasty in the re-establishment of the city of Anazarbus¹⁰. Moreover, it is thought settlers were transferred from the Sirkeli and

¹ Girginer 2000, 81; Ünal 2000, 56; Forlanini 2013, 5.

² Çelikkol 1946, 3; Balaban 1947, 53; Tunç 1978, 165-166; Hild & Hellenkemper 1990, 154, 157.

³ Jones *et al.* 1971, 142; Akurgal 1978, 345; Galliazzo 1994, 408-409; Halaçoğlu 2000, 11; Çulpan 2002, 20; Ramazanoglu 2009, 307-308; 2012, 117-118; About the suggestion that the architect Auxentius also worked in Rome and Antioch and built the bridge in Adana at the same time see Cuomo 2000, footnote 36.

⁴ Girginer & Uygur 2014, 162-163.

⁵ Mitchell 1995, 119.

⁶ Hild & Hellenkemper 1990, 154; Tobin 1999, 381; Sayar 1999, 373.

⁷ Tobin 1999, 384-386.

⁸ Treggiari 1996, 16.

⁹ Tobin 1999, 384-386.

¹⁰ On the coins that Anazarbus minted from 19 B.C., see Head 1887: 598-599. On Augustus' visit, see Plin. *nat.* V. 22; see also Hild & Hellenkemper 1990, 179; Sayar 1999, 377.

Tatarlı mounds to Anazarbus, which was founded by Augustus. Anazarbus was deliberately established on the road leading to the Üskiyen Pass, providing evidence of Augustus' interest in the region¹¹.

In addition to the activities carried out by Augustus in Anazarbus, the establishment of a city called Augusta in Adana during the Early Imperial Period is confirmed by both ancient sources and coins minted by the city¹². It is stated that Augusta, founded in honor of Augustus' wife Livia, started to mint coins from 20 A.D.¹³

During the foundation phase of both Anazarbus and Augusta, the transportation network that connected these cities with the surrounding settlements would have been planned. Therefore, it can be assumed that the Roman road network in the region began to be established at this point.

After Augustus, another emperor who gave importance to infrastructure works concerning road and bridge construction in the region was Vespasianus. It is thought that the road construction works of this emperor started from Side and extended to Seleucia Pieria¹⁴. In addition to milestones, the bridge located in Silifke (= Seleucia ad Calycadnum) and dated to the Vespasian Period from its inscription is also evidence of the infrastructure works carried out by this emperor in the region¹⁵.

After Vespasianus, there are archaeological data showing that infrastructure works were carried out under Hadrian's administration in order to provide communication between the western part and the inner regions¹⁶. Further, it is known that the Governor of Galatia Aulus Larcius Macedo carried out extensive road construction and repair work within the scope of Hadrian's visitation in 121 A.D., and it is thought that the road leading to the Cilicia Gates via Ancyra may have been repaired in this process¹⁷. In fact, the suggestion that the first construction phase of Taşköprü in Adana was carried out under the rule of Hadrian in the IInd century A.D. is associated with this process. However, as can be seen, this connection was established without examining the architectural features of the building and without considering the historical context. For this reason, the construction history of Taşköprü needs to be re-examined in all its aspects.

Architectural Features of Taşköprü Associated with the Roman Period

Taşköprü, consist of fourteen large arch spans, extends on the east-west axis and provides a connec-

¹¹ Durukan 2015a, 246- 247; 2015b, 2-5.

¹² Plin. *nat.* V. 22. On the location of Augusta between the cities of Hierapolis and Anazarbus and between the Sarus (= Seyhan) and Pyramus (= Ceyhan) rivers, see Head 1887, 599.

¹³ On the founding of Augusta and the coins minted, see Head 1887, 718; Jones 1937, 204-205; Magie 1950, 1356. In 1955, examination and sounding excavations were carried out in the ancient settlement located 25 km north of Adana, today under the Seyhan Dam Lake. Augusta, which is stated to have been founded in 20 A.D., has been equated with the area where Gübe Village, which is now under water, is located, through the identified structures and the references in the ancient sources. See Akok 1957, 15-16.

¹⁴ Sayar 1992, 452; 2004, 24-25.

¹⁵ Keil & Wilhelm 1931, 6, Abb. 10.

¹⁶ Mitford 1980, 1247. For the milestone found near Charadrus and dated to 136-137 A.D., see French 1988, 157; 2014, 28. For the milestone found near Elaiussa Sebaste and dated to 121 A.D., see MacKay 1968, 51. Another milestone associated with the road construction between the interior and the coast was found near Titiopolis. For milestone and road structure, see Sayar 1992, 466; Elton 2002, 182.

¹⁷ Kaya & Taşdöner- Özcan 2016, 495-497.

tion between the two sides of the river. A total of seven discharging arches can be identified on the bridge piers, two of which were closed later. The deck length of the structure, which consists of a total of twenty-one spans with discharging arches, was measured as approximately 310 m. Although the width of the deck varies at some points due to repairs over the course of time, at its widest it reaches 10,60 m (Figs. 1-2).

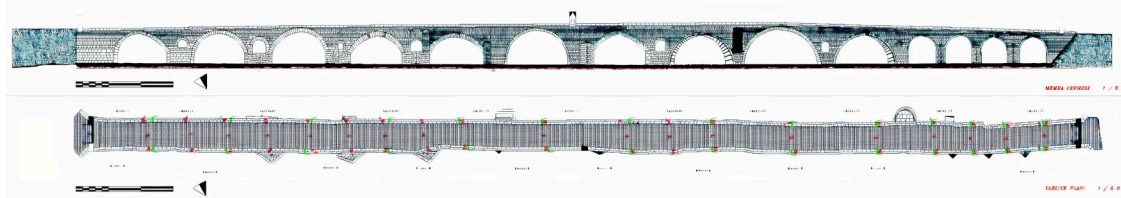


Fig. 1. Drawing Showing Upstream Façade of the Taşköprü



Fig. 2. Downstream Façade of the Taşköprü

It can be verified from the inscriptions and texts that Taşköprü underwent repairs in various periods after its initial construction¹⁸. As a result of these repairs, it can be said that the building has partially lost its original character and qualities. However, the fact that the bridge deck is flat, especially on the east, is a specific arrangement of Roman bridges. The spans of Roman and the Eastern Roman Period bridges are close to each other and reflect equal dimensions¹⁹. The repetition of similar dimensions of the spans corresponds to the flat extension of the deck and the resulting rectangular form of the bridge²⁰. Therefore, it is understood that the remains of the first construction phase of the bridge are concentrated on the east side. On the other hand, traces of renovations are evident on the west side. However, the sections that form a different line inside the vaults of the fifth and seventh arches to the west of the bridge and protrude towards the inner parts of the span can be seen. These protrusions - 20, 25 centimeters- are also be associated with the first construction phase (Figs. 3-4). In addition, a

¹⁸ Çelikkol 1946, 7-8; Ramazanoğlu 2009, 315.

¹⁹ In the Cilicia Region, there are examples of Roman and Byzantine bridges with similar dimensions. For Kozan Bridge, see. Göçmen 2021, 138-147; for Yamanlar Bridge in Karataş, see. Göçmen 2021, 148-153; for Yeni yurt Bridge, see. Göçmen 2021, 174-177; for Eşek Bridge, see. Göçmen 2021, 178-181

²⁰ Tunç 1978, 158; Gençer & Turan 2017, 194.

few rows of stones forming the archivolt to the east of the fourth arch from the upstream façade²¹ are wider than the upper sections. It seems that during the renovations, the preserved parts of the ancient structure would have been used both at the starting point of the fourth arch and in various parts of the bridge.



Fig. 3. Detail of the Vault of the Fifth Arch



Fig. 4. Detail of the Seventh Arch

Five different arch forms can be identified in Taşköprü. It is seen that a semicircular arch is used especially on the east side of the building, a circular arch in the six and ninth spans from the upstream façade, and a lowered pointed arch in the eight and eleventh spans. In addition, two of the first four spans at the western entrance of the bridge reflect the *penci* arch form, while the other two are designed as semicircular arches resting on raised abutments (Fig. 5).



Fig. 5. General View from the Upstream Façade of Taşköprü

The first of the arch forms used in the bridge reflects the semicircular arch design known from Roman Period bridges²². This form becomes evident in the bridge's ten, twelve, thirteenth and fourteenth spans. In addition, the fifth and seventh arches, which contain early phase ruins, reflect this same form despite the repairs they have undergone. It is also a remarkable detail that there are discharging arches over the abutments on which these arches, which are designed in a semicircular form, are placed (Fig. 6). In addition, the fact that the deck extends straight in the section where the arches are located to the east of the building supports the suggestion that the bridge is associated with the Roman phase. There are also examples such as the Pont Julien²³ and Puente de Villa del Rio in

²¹ The architectural drawing of the bridge and the visuals used reflect the upstream façade. Unless stated otherwise, definitions will also be made from the upstream façade.

²² For the semicircular arch form used in Roman bridges, see Tyrrell 1911, 27; Gazzola 1963b, 33; O'Connor 1993, 25; Bayer 2012, 10. However, the Alcántara Bridge in Spain is one of the exceptional examples where the circular arch form is applied as opposed to the semicircular arch form. For the Alcántara Bridge, see Tyrrell 1911, 34-35; O'Connor 1993, 25.

²³ Gazzola 1963b, 127-128.

France²⁴, which have a slope on the deck and are associated with the Roman period. However, there are serious repairs, especially on the spandrel walls of these examples. In these late period repairs, the spandrel walls must have been kept low in both directions and thus the bridge deck must have been sloped. The arches in question exceeding the spans of 15,00 m on average and the arch heights, which reflect a standard practice of approximately 9,00 m, coincide with the principle that the spans of Roman bridges reflect close or equal dimensions. The use of semicircular arch form in the fifth and seventh spans can be explained by the consideration of making use of the existing vault remains in the repairs carried out in the next phase. It is understood that the fifth and seventh arches were relatively widened during the repair, although their heights reflect close measurements compared to the four arches in the east of the building.

In addition to the similarity in the arch form on the bridge, there are other details to be associated with the Roman Period features. There are three cutwaters reflecting similar dimensions and designs on the east side of the upstream façade, which is associated with the original construction phase of the building. Keeping the triangular cutwaters low is a feature seen in Roman bridges²⁵. In addition, the fact that the deck was kept narrower until the tenth arch and that it proceeds in a standard width until the eastern end of the building after this arch strengthens the suggestion that the sections to the east are associated with the early building phase. Although it is understood that the spandrel walls of the structure in question are generally not original, it can be said that the stone sizes are kept relatively larger around the arches on the east side and these stones reflect the *opus quadratum* technique known from Roman bridges.



Fig. 6. Arches to the East from the Upstream Façade

The most important feature associated with the early phase of Taşköprü is evident on the abutments on which the arches are placed. A discharging arch, which was closed later, can be detected on the abutment on which the fourth and fifth arches are placed on the west from the upstream façade. In addition, a discharging arch application is also encountered between the seventh and eighth arches from the upstream façade. It is seen that there are four discharging arches designed in the semicircular form between the tenth and fourteenth arches on the east side, where the features of the Roman Period are evident.

The application of the discharging arch on the abutments is noteworthy in terms of dating the structure in question with its architectural features. The analogical evaluation reveals that the application of the discharging arch was used especially in one phase of the Roman Period²⁶. It is understood that this feature became more evident during the Iulius Claudius Dynasty. For this reason, it becomes possible to evaluate this feature for dating purposes.

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²⁴ O'Connor 1993, 103.

²⁵ Alaboz 2008, 14.

²⁶ Ballance 1951, 80-83; Gazzola 1963b, 33-34; O'Connor 1993, 64- 65, 97-98; Galliazzo 1994, 252.

With the application of the discharging arch, which became evident in the Late Republican Period of Rome and the early stages of the Imperial Period, it should have been aimed to alleviate the massive bridge abutments and so not to damage the abutments in flood times.

There are preserved examples of bridges with discharging arches in the center of Rome and in the provinces of Rome as in France and Spain. Pons Mulvius, located in the center of Rome and built in 109 B.C., but known to have been repaired in the Ist century A.D., is one of these examples²⁷. Another example is the Pons Fabricius, built in 62 B.C. but apparently undergoing major repairs recorded in an inscription dated 21 B.C.²⁸. It is stated that another bridge, which was built in 179 B.C. and known as Ponte Rotto, underwent a serious repair during the Augustinian Period²⁹. The construction of Ponte Pietra, located in the north of Italy and completely restored, is also associated with the Augustinian Period³⁰.



Fig. 7. Cutwater in the West from the Downstream Façade

Examples such as the Torre Astura, which connects with the island at the southeast end of the Gulf of Antium³¹ and the Apollosa Bridge on the Via Appia³² exhibit the same characteristics and also date from the Early Imperial Period.

Another bridge with discharging arches is the Pont Julien in France, generally dated to the Ist century A.D. to early IInd century A.D.³³. Also located in France, the Sommieres Bridge, with its discharging arches and triangular cutwaters, has similar characteristics to Taşköprü and thus is attributed to the Augustinian-Tiberian period³⁴. Another structure whose first ten arches are associated with the Augustinian Period due to its typological features is the Merida Bridge. This bridge has discharging arches on the abutments, as in other examples. It also includes round-shaped cutwaters on the downstream façade (Fig. 7), as well as between the fourth and fifth arches of Taşköprü from the downstream

²⁷ Gazzola 1963b, 33-34; Galliazzo 1994, 32. On the association of the first construction of Pons Mulvius with 109 B.C. and its second phase with the Ist century A.D., see Ballance 1951, 80-83. For the inscription from 27 B.C., which is thought to be on the central pier of the bridge in connection with the repair of the Via Flaminia, see O'Connor 1993, 64-65.

²⁸ Cass. Dio XXXVII.45.3; O'Connor 1993, 66; Galliazzo 1994, 20-23.

²⁹ Gazzola 1963b, 33.

³⁰ Gazzola 1963a, 32-43; O'Connor 1993, 93-94.

³¹ For the dating of Torre Astura between the Late Republic and the Early Imperial Period, see Galliazzo 1994, 70-71.

³² For the dating of the Apollosa Bridge to the Augustinianus Period or the first half of the Ist century A.D., see Galliazzo 1994, 113.

³³ For the dating of Pont Julien between the Ist century A.D. and the beginning of the IInd century A.D. in the context of its historical context and architectural features, see Gazzola 1963b, 127-128; O'Connor 1993, 96-97.

³⁴ For the dating of the bridge to the Tiberian Period, see Gazzola 1963b, 127; O'Connor 1993, 97-98. On the attribution of the same building to the Augustinian Period, see Galliazzo 1994, 252.

façade to the west³⁵. In addition to all this, the Ponte Del Rio in Spain³⁶, can also be compared to the Taşköprü due to the application of the discharging arches.

Late Antique, Medieval and Ottoman Period Repairs of Taşköprü

Apart from the semicircular arches of Taşköprü, which are associated with the Roman Period, a different arch form becomes evident in the sixth and ninth arches, and this arrangement reflects the circular arch form. Although the sixth arch exceeds a span of approximately 22,00 m, the height of the arch was measured as 10,40 m. With these dimensions, the arch in question has the feature of being the widest and highest arch of the building. Reflecting the same design, the ninth arch reflects at similar design as well as having similar dimensions to the sixth arch. Therefore, it can be thought that these two arches were rebuilt in the same phase in relation to the repairs that the building underwent. In addition, the width of the bridge abutments on the east side, which is associated with the first construction phase, reaches 8,30 m on average, while the abutments on which the sixth arch is placed are 3,20 m wide on both sides. Likewise, it is understood that the measurements of the abutment on which the ninth arch is placed are narrower than the eastern side. Therefore, as a result of keeping the aforesaid abutments narrow, there is a strong belief that the mentioned spans were rebuilt by keeping them wider and higher than the remaining arches of the building.

The most important data that strengthens this opinion are the writings of Procopius. Procopius mentions that Taşköprü underwent a major repair during the reign of Iustinianus I. Based on this, it is understood that the influence of this emperor on the bridge was limited to its repair. The text confirm the existence of the bridge before Iustinianus and provide comprehensive information about the details of the repair. Procopius states that the existing bridge abutments on the river bed were renewed and during this work Iustinianus directed the river bed to another point³⁷. It is possible that the difference in abutments widths and arch form observed in the sixth and ninth arches can be associated with this repair phase.

The eight and eleventh arches of Taşköprü from the upstream façade reflect a different design from the two arch forms discussed above. These two arches are designed in the form of lowered pointed arches, and some details especially on the eleventh arch make it possible to make some determinations regarding the construction date of these arches. The prominent feature on the eleventh arch is that there are two antithetic lion depictions facing each other on the rows of stones forming the archivolt (Figs. 8-9). These two arches are associated with the Seljuk Period by some researchers and it is stated that the building may have undergone a repair during this period³⁸. However, when the depictions in question are evaluated in terms of both style and historical context, it becomes possible to make different inferences. At this point, it is a strong possibility that the style of lions is to be associated with the Cilician Armenian Kingdom, which controlled the Cilician plains between the 11th and 14th centuries A.D. It is seen that on the coins of the kingdom, double or single lion depictions

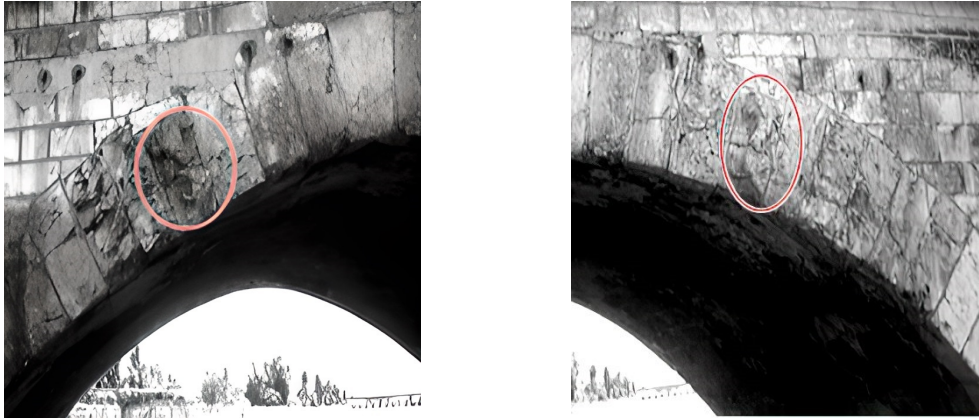
³⁵ Gazzola 1963b, 121-122; O'Connor 1993, 106-107.

³⁶ Gazzola 1963b, 121; O'Connor 1993, 103. Equilateral triangle on the upstream façade of the bridge; On the downstream façade containing a rounded cutwater and dating to the first half of the 1st century A.D., see Galliazzo 1994, 327-329.

³⁷ Prok. *Aed.* V. 5. 8-13.

³⁸ Ramazanoglu 2009, 314.

are similarly stylized³⁹. In addition, it is known that the use of low pointed arches is a common feature of the architecture of the community⁴⁰. Therefore, it can be thought that the eighth and eleventh arches of the building were rebuilt between the 11th and 14th centuries A.D., based on both the arch form and the lion depictions and the historical context.



Figs. 8-9. Lion Depictions on the Eleventh Arch

Another arch form on Taşköprü is observed at the western entrance of the building. It is seen that the first four arches in the west from the upstream façade are kept both lower and narrower than the remaining spans of the building. It is seen that the first two arches on the west side reflect the form called the *penci* arch in Islamic architecture⁴¹. Although these two arches cross an average of 7,50 m spans, their height is measured as 7,80 m. Besides, on the spandrel wall extending between the first and second arches, there is a coat of arms consisting of a twelve-pointed star and a crescent (Fig. 10). Based on this coat of arms, researchers state that this part of the building was built in 1846 during the reign of Sultan Abdülmeccid⁴².



Fig. 10. Crescent and Star Coat of Arms between the First and Second Arches from the West Entrance of the Bridge

The third and fourth spans on the west side of the building reflect a different arch design. Although the arches in question are similar in size to the first and second arches, it is seen that they were designed in the form of semicircular arches resting on raised abutments. It is thought that these arches were built in the same phase as the first and second arches in the west. However, the difference in their

³⁹ For detailed information on the coins of the Armenian Kingdom of Cilicia, see Kouymjian 1980, 68-69.

⁴⁰ Armenians had long-term dominance in the Plains of Cilicia, which includes Anazarbus and Kozan. In Kozan (= Sis) Castle and other structures in the vicinity, it is mentioned that there are structures reflecting the pointed arch form. For Armenian buildings in Anazarbus, see Hançer 2016, 281-312; In addition, it is observed that the arches used in the building in Van, called the Seven Churches and associated with the Armenians, were designed in the form of pointed arches. See also on this subject, Özcan 2010, 45.

⁴¹ The *penci* arch is a frequently preferred form in Islamic architecture. In this application, the axis of the arch is divided into five, and two circles are drawn with a radius of four units. The drawn circles are combined so that their centers are the fourth points of the axis from the right and left.

⁴² Ramazanoglu 2009, 315.

designs can be explained through the making use of the preserved parts of the building. On the east side of the fourth arch, it is seen that larger stones were used in the eight rows of the stones forming the archivolt. In addition, the presence of a later closed discharging arch on the abutment to the west of the fifth arch associated with the early phase, and the remains of the early phase in the vault to the west of the fifth arch, confirm that the section to the east of the fourth arch was preserved. Therefore, due to architectural requirements, it can be thought that the first four arches in the west reflect different forms, although they were built in the same phase. Another striking feature of the arches in question is that they pass the average 7,50 m span. This section, which was probably passed by two arches in the original, must have been designed to contain four arches during the reconstruction. Moreover, in the section where these arches are located, it is seen that the upper elevation of the bridge falls and the deck, which starts low from the bridge entrance, rises slightly from the first four arches.

It can be verified from surviving historical documents that the building was repaired many times during the Ottoman Period. However, these repairs can be considered as maintenance rather than reconstruction works. The construction of the first four arches to the west of the building, whose architectural features are given above, is attributed to the 19th century A.D. In this context, it is reported that the bridge was damaged as a result of the explosion that took place in the castle to the west of the river while the Kavalalı Mehmet Ali Pasha's forces were retreating from the Ottoman army. Therefore, the repair carried out in 1847 is associated with the four arches discussed here, and the inscriptions preserved in the Adana Museum confirm this repair⁴³.

Discussions of the Construction History of Taşköprü

It is understood that Adana Taşköprü, located on the international road route between Asia Minor and Mesopotamia in antiquity, underwent many repairs following its initial construction. It is unclear and controversial when the building was first built in the Roman Period, rather than its subsequent repairs.

Some researchers suggest that the first construction of the bridge may have taken place in the IInd century A.D. According to these researchers, the bridge was built together with other buildings as a result of the emperor's visit to the city during the reign of Hadrian (117-138 A.D.). This suggestion is also supported by the fact that the city was named "Hadrianapolis" during the visit of the emperor⁴⁴. It is thought that Abidin Pasha Street, which is connected to the bridge from the west, was designed together with the bridge, as well as the first construction being associated with the mentioned emperor⁴⁵. In this case, it is understood that the building provides a connection via the *decumanus maximus* (= east-west oriented Street) of the Roman Period city.

There are also scientists who associate the first construction of the bridge with the year 384 A.D.⁴⁶. The suggestions of these researchers are based upon a Greek inscription in which the name Auxentios is implied was the architect of the bridge (Fig. 11)⁴⁷. It is claimed that this architect participated in the

⁴³ Çelikkol 1946, 7-8.

⁴⁴ On associating the construction of the bridge with Hadrian, see Çelikkol 1946, 3; Balaban 1947, 53; Tunç 1978, 165-166; O'Connor 1993, 127

⁴⁵ Hild & Hellenkemper 1990, 154-157.

⁴⁶ Çelikkol 1946, 4; Akurgal 1978, 345; Galliazzo 1994, 408-409; Halaçoğlu 2000, 11; Çulpan 2002, 20; Ramazanoğlu 2009, 307-308; 2012, 117-118.

⁴⁷ For detailed information on the translation of the Greek inscription, see Çelikkol 1946, 4-5.

construction of a bridge in the center of Rome and in the repair of the Temple of Diana, and the architect who built the Taşköprü was this same person. Information about this architect is based on the records of Symmachus, who lived in Rome in the IVth century A.D. According to the records kept by Symmachus, the names of two architects responsible for the construction of the bridge and a basilica in Rome were involved in corruption allegations. Auxentios, one of the two architects on trial for the failure of a bridge built on the Tiber and its collapse during its construction, fled Rome⁴⁸. The building, which collapsed in 382 A.D., is associated with the bridges called *Pons Probi* or *Pons Theodosius* over the Tiber, and it is emphasized that the trial process with an uncertain outcome continued until 387 A.D.⁴⁹

In addition to these two dating proposals, there are scientists who think that Taşköprü was built during the reign of Justinian I⁵⁰. However, the record kept by Procopius⁵¹ confirms the influence of this emperor on the bridge was limited to repairs.

General Evaluation

There are several different dating suggestions related to Taşköprü, which is located in the center of Adana and the first construction phase of the bridge is still unclear. According to the first suggestion, the bridge should be dated to Hadrian's Period. This claim is also supported by the infrastructure works carried out by the emperor in the region. However, it is understood that only the historical context was taken into account while creating this argument and the architectural features of the building were ignored. In other words, the reasons put forward for making such a proposal are incomplete and insufficient.

The second suggestion regarding the dating of Taşköprü points to the IVth century A.D. In fact, based on the architect mentioned in an inscription that has survived, it is suggested that the building was built in 384 A.D. However, as with the first dating proposal, it is seen that the scientists who made this proposal focused on a single point and did not take into account the architectural features of the building. Moreover, it has been ignored that the judicial process in the center of Rome due to the collapse of the bridge built over the Tiber continued between 382 and 387 A.D. by Architect Auxentios, which forms the basis of the proposition. It does not seem possible that the architect, who was reported to have escaped from Rome before the trial was concluded, built Taşköprü in 384 A.D., while the trial was still in progress. Even if it is assumed that the bridge was built by the architect while he was a fugitive, it is clear that both the approval and financial support of the Roman State would be needed for the construction of such a magnificent bridge. Therefore, it does not seem possible for an architect whose previous attempt failed and who was charged with this failure, to undertake such



Fig. 11. Bridge Inscription in Adana Museum

⁴⁸ Sym. *Relat.* 25-26.

⁴⁹ Cuomo 2000, 17-18.

⁵⁰ Girginer & Uygur 2014, 162-163.

⁵¹ Prok. *Aed.* V. 5. 8-13.

a large project in a province of Rome.

Although the third suggestion on the first construction of the bridge relates the building to Justinian I, it is already known that the building underwent a major repair during the reign of this emperor. At this point, it is very important to evaluate the inscription with the name Auxentios, which forms the basis of the suggestion that the bridge was built in the IVth century A.D. According to a researcher named Galliazzo, the letter characteristic of the inscription attributed to the IVth century A.D. indicate a later period⁵². The re-evaluation of the inscription confirms this finding⁵³. In this case, it can be suggested that the inscription was added to the bridge during the restoration of the Justinianus Period and that Auxentios was the name of another architect active in late antiquity. In other words, it can be thought that the connection between the architect, who was prominent and judged in the context of the construction activities he undertook in Rome, and Auxentios, who was mentioned in the inscription, does not extend beyond the possession of the same names.

It is understood that Taşköprü was repaired many times in the Middle Ages and later, as well as the phases associated with the ancient period. Based on the lowered pointed arch design of the eighth and eleventh arches and the lion depictions on the archivolt of the eleventh span, it is possible to suggest that these parts of the building can be associated with the Cilician Armenian Kingdom and that a substantial repair work took place between the 11th and 14th centuries A.D.

It is supported by inscriptions that the bridge underwent some repairs during the Ottoman Period. However, while these repairs were generally considered as routine maintenance, it was determined that the first four arches at the western entrance of the bridge were built in the 19th century during the reign of Sultan Abdülmecid.

A New Suggestion on the Construction History of Taşköprü

There are several different suggestions regarding the dating of the Adana Taşköprü. However, it is seen that the suggestions in question deal with the building from a single aspect and its architectural features are not evaluated as a whole. When it comes to the architectural features, the details of which were given earlier, it is understood that the use of semicircular arches is directly related to the Roman Period. Likewise, the flat extension of the deck on the east side and the fact that the triangular cutwaters on the east side were elevated to the springer level confirm the connection of the building with the Roman phase. The most striking feature is that there are discharging arches on the last four abutments on the east side. In addition, the same practice is encountered on the abutment on which are the fifth and seventh arches, which contain remains from the Roman Period. As a result of the analogical evaluation, it is understood that the application in question was also used in bridges built in the center of Rome and in Roman provinces. Moreover, the fact that all of the bridges reflecting this feature are attributed to the Late Republic and Early Empire Period, removes the uncertainties regarding the dating of the bridge under consideration.

It can be suggested that Taşköprü was constructed between the Ist century B.C. and the Ist century A.D., from the analogical evaluation made on the Roman Period features and discharging arches observed throughout the building. When we look at the relations between the Roman emperors and the

⁵² Galliazzo 1994, 408-409.

⁵³ I would like to thank Dr. Mehmet Alkan, who reviewed the inscription in question and confirmed Galliazzo's determination, for his contributions.

region in this period, the name of Emperor Augustus is clear. At this point, it is noteworthy that Augustus visited Anazarbus in Cilicia Pedias in 19 B.C. and attempted to re-establish this city on the road to the Üskiyen Pass. In addition, the city of Augusta, which was founded in the name of Livia, wife of Augustus and is thought to be under the Seyhan Dam today, also provides evidence of the increasing interest in the Cilician plain part of the region at this time.

Conclusion

Although Adana Taşköprü has undergone many repairs over time, parts of its original construction phase have been largely preserved. The preserved parts of the building associated with its early phases reflect all the principles adopted in the Early Imperial Period in the context of bridge architecture. It is understood that in that period, the massive abutments of the bridges built in the Roman center and in the provinces of Rome were divided by discharging arches, and this practice was evident in the Late Republic and Early Empire Periods. Moreover, the fact that most of these bridge examples are dated to the Augustinian Period (27 B.C.- 14 A.D.), suggests that Taşköprü was also built during the reign of the Emperor Augustus. In addition, two bridges identified in the immediate vicinity, one in Kozan and the other approximately 2 km east of Anazarbus, containing discharging arches are also associated with the Augustinian Period.

In addition to the architectural features of Taşköprü, in the evaluation made in terms of historical context, Augustus's name is apparent. The visit of the emperor to Anazarbus in 19 B.C. and the mission he undertook in the establishment of the city indicate that there was a strong bond between the Roman center and the region in the said process. In addition, the city, which was founded to the north of Adana with the name "Augusta" in honor of Livia, the wife of Augustus, is another indicator of the importance that Rome gave to the region. In addition, the statements of Augustus⁵⁴ in the work called *Res Gestae*, which presents a record of his works, reveals the attitude of the emperor towards bridge building.

As a result, it can be suggested that Adana Taşköprü was built within a plan and at approximately the same time as the Kozan bridge and Orta Tozlu bridge, in cooperation with the Tarkondimotos Dynasty, which ruled in the name of Rome, after the visit by Augustus in 19 B.C. The establishment of the cities of Anazarbus and Augusta seems to have formed the beginning of the systematic road network in the region and consequently, the construction of the bridge. Taşköprü would have been one of the most monumental examples in this process to have been built.

⁵⁴ In the *Res Gestae Divi Augusti*, the statement from Emperor Augustus' own words that "I rebuilt the Via Flaminia stretching from Rome to Ariminum and all the bridges except the Mulvius and Minucius bridges" reflects the emperor's attitude and involvement in road and bridge construction. On the subject see Dürüşken 2007, 63.

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