BYZANTINE HERITAGE DEPICTED: THE AQUEDUCT OF VALENS IN THE HISTORICAL TOPOGRAPHY OF ISTANBUL

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ABSTRACT

BYZANTINE HERITAGE DEPICTED: THE AQUEDUCT OF VALENS IN THE HISTORICAL TOPOGRAPHY OF ISTANBUL

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The Aqueduct of Valens is one of the surviving urban elements referring back to the historical layers of the city of Istanbul. In the early Byzantine era, the intra-mural water bridge was constructed as a part of the longest Roman waterlines reaching from the Thracian Peninsula. During the Byzantine and Ottoman periods, the Aqueduct maintained its critical operation for supplying water and, at the same time protected its urban presence in the urban topography. It developed into an urban monument as a distinctive feature of the Byzantine cityscape and a complementary memorial of the subsequent Ottoman capital. With the promise of analyzing the status of the Byzantine Aqueduct of Valens in the urban space of Ottoman Istanbul, this thesis aims to investigate the depictions of the monument and analyze its cultural, spatial and urban interactions in the ever-changing imperial topography. Under the light of visual documents such as maps, panoramas, miniatures and other forms of illustrations, and by a framing timeline from the fifteenth to eighteenth centuries, this study appreciates the 'timeless monumentality' of the Aqueduct of Valens in the city of Istanbul. The monument's urban roles and functions will be analyzed by exploring its viewing, visibility and its reciprocity with the surrounding elements, especially with the monumental ones.

Keywords: Valens Aqueduct, Urban Monument, Urban Representation, Visual Memory, Ottoman Istanbul.

ÖZ

TASVİRDEKİ BİZANS MİRASI: İSTANBUL'UN TARİHİ TOPOGRAFYASINDA VALENS SU KEMERİ

SARIKAYA IŞIK, Fatma

Yüksek Lisans, Mimarlık Tarihi Bölümü

Tez Yöneticisi: Dr. Öğr. Üyesi Pelin Yoncacı Arslan

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Valens Su Kemeri, İstanbul şehrinin tarihi katmanlarına atıfta bulunan, günümüzde ayakta kalmış olan kentsel unsurlardan biridir. Bu kemer, Bizans döneminde Trakya Yarımadası'na uzanan en uzun Roma su yolunun bir parçası olarak Suriçi'nde inşa edilmiş ve hem Bizans hem de Osmanlı dönemi boyunca, şehre su temini için faaliyetini sürdürmüştür. Diğer taraftan, Bizans kent manzarasının ayırt edici bir özelliği ve Osmanlı başkentinin tamamlayıcı bir parçası olarak kentsel bir anıt haline gelmiştir. Bu tez, Valens Su Kemeri'nin Osmanlı İstanbul'unun kentsel alanındaki statüsünü analiz etme vaadi ile şehir tasvirlerini değerlendirmeyi ve bu su yapısının değişmekte olan imparatorluk topografyasındaki kültürel, mekansal ve kentsel etkileşimlerini incelemeyi amaçlamaktadır. Bu bağlamda, on beşinci yüzyıldan on sekizinci yüzyıla uzanan bir zaman çizelgesiyle, haritalar, panoramalar ve minyatürler gibi çeşitli görsel belgeler ışığında, bu çalışma Valens Su Kemeri'nin kent içerisindeki "zamansız anıtsallığını" kavramaktadır. Bu su yapısının kentsel rolleri ve işlevleri, onun görünüşünü, görünürlüğünü ve çevresindeki unsurlarla, özellikle anıtsal elemanlarla olan karşılıklı ilişkisini araştırmak suretiyle analiz edilmiştir.

Anahtar Kelimeler: Valens Su Kemeri, Bozdoğan Kemeri, Kentsel Topografya, Kentsel Bellek, Osmanlı İstanbul'u.

To the most idealist woman and instructor, I have ever met,

Ayşe Hoca’ma,

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CHAPTER 1

INTRODUCTION

To the imperial capital city of both Byzantine and Ottoman Empires, the urban landscape of Constantinople has evolved into a multi-layered 'whole.' From its foundation, the city has been in a perpetual flux concerning the urban space. The formation of its eventual architectural program has proceeded as the body made out of heterogeneous temporalities at different stages of the Byzantine and Ottoman cultures. Then, the re-writing of its urban text with each component, namely buildings, landmarks, and the street network has revealed an exemplary embodiment of a prevalent image of a palimpsest.

To the remaining monuments in the constant transformation of Istanbul, the Aqueduct of Valens is one of the earliest surviving monuments of those remaining from the evolution of Istanbul. Its historic prestige was enhanced with the function of a 'life river.' In the region that has always been dependent on conveying water, this fourth-century intra-mural water bridge has been prominent as part of an immense network of Roman waterways. The operation of the Aqueduct for supplying water to the various regions and buildings of both the Byzantine and Ottoman city has continued throughout the life span of these empires.[1]

The urban significance of the aqueduct as a lasting edifice in the ever-changing capital is salient with its location. In between the Third and the Fourth Hills, the Valens Aqueduct has marked the cityscape through the centuries. On the plan of Byzantine Constantinople, the structure almost created a parallel line to the northern side of the main thoroughfare, Mese (Fig. 1). The location of the Aqueduct had a principal advantage as an easy access point to the avenue and shared the same

[1] The last report on the operation of the aqueduct in Istanbul was from the nineteenth century. See, Antoine-François Andreossy, *Constantinople et le Bosphore de Thrace,* (1828), 431-433.

axis with the ceremonial way of the city. While ascending towards the sky, in between the Forum of Theodosius and the Church of the Holy Apostles, the water system creates an imperial axis which lined imperial monuments of the panorama of Constantinople. In fact, the early Byzantine panorama was a suitable place for the aqueduct to play a significant role since there were only a few distinctive features namely: the domes of the Great Churches of Hagia Sophia and Holy Apostles and, the column of Constantine and other colossal columns.[2] Following the city's conquest by Ottomans, the appropriation of the Byzantine skyline by means of domes and minarets made the silhouette more crowded. While the spatial perception of the magnificent water system was relatively reduced among the many other apparent monuments, the aqueduct still sustained its overt presence in the northern view of Istanbul as a prominent Byzantine monument. These northern heights were principal sites of the Ottoman capital which were adorned with the monumental religious and social complexes. The image of the water structure which turned into an intermediary element bridging the Fatih and Şehzade Mosque complexes has lasted here, on the side of Golden Horn and recorded over the centuries through the travelers, illustrators, and painters who visited Istanbul (Fig. 2).

The evidence of written documents regarding the Aqueduct of Valens appears fragmentary. Most of the sources discussed the aqueduct as a single water structure serving the city of Constantinople from time to time. Its connection with various water supply lines at different periods has been surveyed along with its intra-mural distributing network to the multiple regions. Inserting the Aqueduct in the inventory of water structures of the city has been another common approach as well.

Various ancient references to the aqueduct misrepresented the structure; they mentioned it as the public baths of Constantianæ which was constructed out of

[2] Pelin Yoncacı Arslan, "Towards a New Honorific Column: The Column of Constantine in Early Byzantine Urban Landscape," *METU JFA* 33, no.1(2016): 137.

the stones of the walls of Chalcedon.[3] Later, called a "subterraneous and aerial river" and, it was affirmed that the structure was not a bath house, but an aqueduct constructed under the reign of Emperor Valens.[4] The Ecclesiastical History of Socrates Scholasticus written in 303 AD, which is one of the oldest sources mentioning the water structure, also referred to Emperor Valens when the city enjoyed an era of being supplied with an abundance of water by the aqueduct.[5] However, his work mainly deals with the political and social events before and after the construction of the aqueduct, and Socrates gave information about the engraved prophecy found on one of the stones of the aqueduct.

Themistius, a fourth-century orator, celebrated Emperor Valens due to "endowing the best thing, water" to the city of Constantinople.[6] In his *oratio*, he remarked the Thracian sources of the water and gave credit to the initiator of the water supply project, Constantius II.[7] Nevertheless, he also stated that "the origin of the project does not belong to the one who started but to the one who completed it."[8] Rather than giving detailed information about the water supply system, Themistius compares Emperor Valens with the former emperors; Constantine the Great and Constantius II. In the same century, Ammianus Marcellinus mentioned only the

[3] Sozom. VIII. 21, mentions these baths. Am. Marcellinus (*Rerum. Gestarum*, XXXI. I. 4) relates that Valens built a bath out of the stones of the walls of Chalcedon. So also Themist. *Orat. Decen. ad Valentem*, and Gregory Nazianzen, *Orat.* 25. Zonaras, *The History of Zonaras: From Alexander Severus to The Death of Theodosius The Great*, trans. T. Banchich and E. Lane (London: Routledge, 2009), 182, 254.

[4] Cf. Cedrenus, I. 543 (p. 310, B).

[5] Socrates Scholasticus, *Socrates and Sozomenus Ecclesiastical Histories*, ed. P. Schaff (Grand Rapids, MI: Christian Classics Ethereal Library, 2005), 248, http://www.ccel.org/ccel/schaff/npnf202.html.

[6] Themitus, *Oratio* XI. 151a-152b. See also, James Crow, "The Infrastructure of a Great City: Earth, Walls and Water in Late Antique Constantinople," in *Late Antique Archaeology* 4, edited by L. Lavan, E. Zanini and A. Sarantis (Leiden: Brill, 2003), 270.

[7] Themitus, Oratio XI. 151a-152b.

[8] Ibid.

construction of a bath at Constantinople.[9] The *Chronicle* of St. Jerome was also composed around the fourth century, 380 A.D.; St. Jerome celebrated Clearchus, the prefect of the city during 372-373 for bringing the necessary "long-prayed-for water" to the city with his aqueduct rather than attributing this honor to the emperor.[10]

One of the extant examples of a Byzantine world chronicle, the chronicle of John Malalas, provides a summary account of the events under the Roman emperors up to his time. It was also an ancient source for the water structures in the city and clearly stated the presence of the aqueduct of Emperor Hadrian and the city's aqueduct (the Aqueduct of Valens). Malalas also mentioned the restoration activity after the construction of the bath foundation and the central hall of the Basilican Cistern by Emperor Anastasius.[11] Another chronicle, *Chronicon Paschale* was copied in the first half of the seventh century and reflected the wording of Malalas; it repeated the Hadrianic aqueduct and gave only reference to the Valens Aqueduct by remarking about the construction of the two baths on behalf of his daughters.[12] The Chronicle of Theophanes is one of the primary sources for the knowledge of the history of the Byzantine Empire from the reign of Diocletian to the first part of the ninth century. The source shortly mentioned Valens, his baths and the aqueduct.[13] As one of the most popular Late Roman historical genres, *Consularia Constantinopolitana,* provides information for the fourth-century Empire. However, the source has no reference to the aqueduct but mentioned the great Constantinopolitan cistern which was completed by the City Prefect of

[9] Ammianus Marcellinus 31.1.4

[10] Jerome, *A Translation of Jerome's Chronicon with Historical Commentary*, trans. Malcolm Drew Donalson (New York, 1996), 54.

[11] John Malalas, *The Chronicle of John Malalas: a Translation*, by E. Jeffreys, M. Jeffreys and R. Scott (Melbourne: Australian Association for Byzantine Studies, 1986), 252.

[12] *Chronicon Paschale*, ed. L. Dindorf (Bonnae: E. Weber, 1832), vol 1: 619.

[13] Theophanes, *Chronicle* AM 5860.

Domitius Modestus.[14] Other sources from the Late Antique period, mentioned the aqueduct with only references and gave limited information about the usage of the aqueduct and the matter of its restoration and maintenance for public use during emperors; Theodosius, Justinian, Leo, and Zeo.[15]

Apart from the primary sources, a nineteenth-century work on the art history of Byzantine Empire, *Quellen der Byzantinischen Kunstgeschichte* by Friedrich Wilhelm Unger devoted the third section of this book to the water pipes and cisterns of Byzantine Constantinople.[16] He had a short introduction that revealed the magnificence of the aqueduct with its Valentian origin. Then a group of references was given from the primary sources mentioning the aqueduct and some of its reconstruction processes.[17] Another well-known source from the same period is Van Millingen's book, *Byzantine Constantinople; the walls of the city and adjoining historical sites.* The book constitutes a base that was widely and carefully illustrated with plans, views, and facsimiles of inscriptions for studies on the topography, epigraphy, and archeology of Byzantine Constantinople.[18] However, it only supplies a fragmentary account of the water structure by giving references to both Emperor Hadrian and Emperor Valens.[19]

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[14] *The Chronicle of Hydatius and the Consularia Constantinopolitana,* ed. R. Burgess (Oxford: Oxford University Press, 1993), 24.

[15] Procopius, *The Buildings of Procopius*, (Loeb Classical Library, 1940), 91 http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Procopius/Buildings/1C*.html; *The Code of Justinian*, trans. S. Scott (Cincinnati, 1932), 11: 42, https://droitromain.univ-grenoble-alpes.fr/Anglica/CJ11_Scott.gr.html#42. ; Nicephorous Callistus, *Historia Ecclesiastica* II.4; *Constantinople in the Early Eight Century: Parastaseis Syntomoi Chronikai*, ed. A. Cameron and J. Herrin (Leiden: Brill, 1984), 27-28, 39, 153, 189; *Patria* 2.69; Georgius Cedrenus, *Byzantine History*, ed. I. Bekker and J. Scylitzes (Weber, 1838), 544 https://archive.org/details/georgiuscedrenu00scylgoog/page/n5 ; Sozomen, *Church History* 6.9.

[16] Friedrich Wilhelm Unger, *Quellen der byzantinischen Kunstgeschichte*, (Wienna: W. Braumüller, 1878), 191-202.

[17] Ibid., 192-194.

[18] Alexander Van Millingen, *Byzantine Constantinople: The Walls of the City and Adjoining Historical Sites,* (London: J. Murray, 1899).

[19] Ibid., 3; 14.

There are also several contemporary mentions adverting to the Aqueduct of Valens are listed below.[20] Nevertheless, this study examines a couple of more detailed accounts directly concentrating on the water structure and the water supply systems of the city. Besides, the ones providing a considerable contribution to the study of the urban space of Constantinople will be treated in the following pages.

The title of the small volume of Dalman, *Der Valens-aquädukt in Konstantinopel* seems the very first and significant step through the investigation of the monument since there has been a scarcity of sources representing the entire

[20] The Aqueduct of Valens was referred in Pierre Gilles, *De Topographia Constantinopoleos, et de illius antiquitatibus libri quatuor*, (Lyon, 1561: Leiden 1632), 163; Joseph Grelot, *Relation nouvelle d'un voyage de Constantinople, (*Paris: En la boutique de Pierre Rocolet, 1680).; Charles Thornton Forster and Daniell, F.H. Blackburne, *The Life and Letters of Ogier Ghiselin De Busbecq Vol.1*, (London: C. Kegan Paul & Co, 1881), 410; Edwin A Grosvenor, *Constantinople*, (Boston: Roberts Bros, 1895).; Edmondo De Amicis, *Constantinople*. Translated by Maria Hornor, (Philadelpia: Henry T. Coates&Co., 1896); William Holden Hutton, *Constantinople: The Story of the Old Capital of the Empire*, (London: J. M. Dent & Co., 1900); Jean Ebersolt, *Constantinople byzantine et les voyageurs du Levant*, (Paris: Editions Ernest Leroux, 1918).; C. E. N. Bromehead, "The Early History of Water-Supply," *The Geographical Journal* 99, no. 3 (1942): 142-51.; Nikolaos Mesarites, "Description of the Church of the Holy Apostles at Constantinople", *Transactions of the American Philosophical Society*, Vol. 47, No. 6 (1957), 863.; Arnold H. M. Jones, *The Later Roman Empire 284-602, a Social Economic and Administrative Survey II*, (Oxford: 1964).; Richard Krautheimer, *Three Christian Capitals: Topography and Politics*, (London: University of California Press, 1983).; Cyril Mango, "The water supply of Constantinople", in *Constantinople and its Hinterland*, ed.Mango C., Dagron G., Greatrex G (Aldershot: Varorium, 1995),16.; Jonathan Bardill, "The golden gate in constantinople: A triumphal arch of theodosius I*," American Journal of Archaeology* 103 (4): 671-96.; Müller-Wiener, Wolfgang and Ülker Sayın, *İstanbul'Un Tarihsel Topografyası: 17. yüzyıl başlarına Kadar Byzantion-Konstaninopolis-İstanbul*, (İstanbul: Yapı Kredi Yayınları, 2002.; Noel Lenski, *Failure of Empire: Valens and the Roman State in the Fourth Century A.D.*,(Los Angeles: University of California Press, 2002), 395-399. ; Richard Bayliss, "Archaeological Survey and Visualisation: The View from; Byzantium" in *Theory and Practice in Late Antique Archaeology* ed. L. Lavan, and W. Bowden, (Brill: Boston, 2003), 291. John Freely and Ahmet S. Çakmak, *Byzantine monuments of Istanbul* (Cambridge ; New York : Cambridge University Press, 2004.); Burgess, R. W., "A Common Source for Jerome, Eutropius, Festus, Ammianus, and the Epitome De Caesaribus between 358 and 378, along with Further Thoughts on the Date and Nature of the Kaisergeschichte," *Classical Philology* 100, no. 2 (2005): 166-192; James Crow, *The water Supply of Byzantine Constantinople* ed. Crow, J., Bardill, J. and Bayliss, R (Society For The Promotion of Roman Studies: 2008); 166-92; Doğan Kuban, *Istanbul an urban history : Byzantion, Constantinopolis, Istanbul,*(İstanbul : İş Bankası Kültür Yayınları, 2011); Stefanos Yerasimos, *Constantinople : Istanbul's historical heritage*, (Köln : H.F. Ullmann ; Princes Risborough: 2012.); James Crow, "Water and Late Antique Constantinople," in *Two Romes: Rome and Constantinople in Late Antiquity*, ed. Grid, L. And Kelly, G.(Oxford University Press,2012); James Riley Snyder, "Construction Requirements of the Water Supply of Constantinople and Anastasian Wall," (PhD diss., University of Edinburg, 2013)

water supply system from Late Antique, Byzantine and Ottoman periods.[21] The detailed technical surveying; the measurement of the line, the masonry techniques and restorations of the aqueduct are taken into account as part of the entire water supply system by looking at all the literary evidence from Greek and other European sources. The book also promises topographical specifications which discuss the location of the Aqueduct. All available evidence is summarized here regarding this imposing monument strikingly standing up from the Pera side of the Golden Horn. In the concluding chapter "Topographical Implications," the realization of urban change is represented from the old town within the Severan Walls to the Theodosian expansion of the urban landscape. Therefore, the author is the first scholar who provides such a detailed account of the aqueduct from a technical perspective and discussing the structure within the urban topography of Constantinople. Additionally, he evaluated some of the essential maps and plans of the city and raised many questions on the location of the nearby buildings. Dalman confirmed Lorichs's point of view in Galata which enabled him to see much detail while creating the panorama and, he used Melchior Lorichs's panorama as one of the sources for the topography of the Ottoman city.

In 1950, the comprehensive study of Raymond Janin revealed the slight vestiges of the monuments of the Byzantine capital.[22] By giving all the critical bibliography, the work was divided into two parts; while the first was devoted to the urban development of the city, the second part focuses on the neighborhoods and the urban monuments. The water supply of the city during the Byzantine Empire and the Aqueduct of Valens was studied in the first chapter, under the title of "The Water Regime." The author provided a brief account of the aqueduct and its Hadrianic, the reconstruction phases during Emperor Valens and the restoration activities under the reign of various emperors.[23] However, the water structure was not taken into account

[21] Knut Olof, Dalman, *Der Valens-aquädukt in Konstantinopel,* ed. Martin Schede and P. Wittek (Bamberg : J. M. Reindl, 1933), 19, 37,58.

[22] Raymond, Janin. *Constantinople Byzantine: developpement urbain et repertoire topographique*, (Paris: Institut Francais D'Etudes Byzantines, 1950).

[23] Ibid., 192-193.

as an urban monument. So, Janin's study does not reveal more than a repeated historical review of the aqueduct.

As one of the most known contemporary scholars working in Constantinople, Cyril Mango performed a brief study on the water supply of the city from Byzantion in his book, *Le Developpement Urbain de Constantinople* (1985).[24] He revealed the Hadrianic and the unrepaired condition of the aqueduct during the reign of Constantine V while giving information about the much-needed water supply. Since the eighty-three page book gives a general urban history of Constantinople by referring to the earliest sources through a chronological scope, it is improbable to expect references to the urban monumentality. In a similar vein, he goes back to the antique Byzantion in his symposium paper, "The Water Supply of Constantinople in Constantinople and its Hinterland (1993)."[25] This time he focuses on the functional features of the monument and supplies further comprehensive information about the origin of the structure. By giving frequent references to the earlier authors working on this subject, he also reviewed the architectural history literature and created a short but efficient discussion.

A careful work representing the ancient water lines of Constantinople was completed in 1996 by Kazım Çeçen, the professor of hydraulic engineering.[26] The chapters here mention the Roman and Byzantine water supply for Istanbul with comprehensive background information on Roman aqueducts, other water system features, and a survey of Ottoman water lines in Istanbul. The book includes unique evidence with magnificent illustrations, photographs, drawings, foldout maps of water supply systems, inscriptions, and manuscripts. The author referred to the Aqueduct of Valens by supplying a historical background from the period of

[24] Cyril Mango A. *Le développement urbain de Constantinople, IVe-VIIe siècles*, (Paris : Diffusion de Boccard, 1985), 20, 41, 60.

[25] Cyril Mango, "The water supply of Constantinople", in *Constantinople and its Hinterland*, ed. C. Mango, G. Dagron, G. Greatrex (Aldershot: Variorum, 1995),13.

[26] Kazım Çeçen, *Roma suyollarının en uzunu*, (İstanbul: Türkiye Sınai Kalkınma Bankası, 1996).

Hadrian, to Constantine and then Valens and, he provided information about its usage by the different water supply lines.[27]

Doğan Kuban's book, *Istanbul: An Urban History* presents the three phases of the urban history of a world-city; Byzantion, Constantinople, Istanbul.[28] The writer intends to represent the significance of the historical image of the city by focusing on its physical, cultural, and social contexts. However, his surveying on the Aqueduct of Valens and the water supply of the city did not seem comprehensive but remained as a conventional approach. He has some mentions of the Aqueduct of Valens regarding it as the same one with the Hadrianic Aqueduct. Thereby, the author creates an outline of its presence and destruction in the city. Apart from the aqueduct, Kuban devoted a sub-chapter to the water supply and distribution systems to outline a background.

James Crow's approach to the aqueduct in "The Infrastructure of a Great City: Earth, Walls and Water in Late Antique Constantinople" seems similar to Dalman's versatile book. He emphasizes that the aqueduct is among one of the prominent surviving late antique monuments along with Hagia Sophia and the Land Walls.[29] However, the aqueduct of Valens is not the focal point; this book investigates the water supply of Constantinople within a broader context. The hinterland is enlarged to include the Thracian Peninsula and the period is limited between periods of the early to the middle Byzantine Constantinople. Except focusing on the Ottoman period, Crow uses a broader range of sources from original ones to the modern explorations.

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[27] Ibid., 21-22.

[28] Doğan, Kuban, *Istanbul an urban history: Byzantion, Constantinopolis, Istanbul,*(İstanbul : İş Bankası Kültür Yayınları, 2011).

[29] James Crow, "The Infrastructure of a Great City: Earth, Walls and Water in Late Antique Constantinople." in *Late Antique Archaeology 4*, ed. Lavan L. E. Zanini and A. Sarantis (Leiden: Brill, 2003), 262; Paolo Bono, James Crow and Richard Bayliss, "The Water Supply of Constantinople: Archaeology and Hydrogeology of an Early Medieval city" *Environmental Geology* 40 (October, 2001): 1325.

One of his books, *The Water Supply of Byzantine Constantinople,*[30] with Jonathan Bardrill and Richard Andrew Bayliss, is the most detailed work on one of the greatest achievements of Roman hydraulic engineering, the longest known aqueduct channels and one of the most complex distribution and storage systems. It is the result of ten years of fieldwork and research projects documenting the aqueducts, water channels, and water storages in and outside the capital. The authors present an outline of the history of the water supply system and focus on every single water structure relating to the various supply lines. Rather than providing architectural and archaeological surveying of the aqueducts, the book includes an examination of the Christian symbols and their iconography. Therefore, it constitutes one of the most comprehensive studies on the Valens Aqueduct along with its entire water supply system by including comparative information about the other systems and the aqueducts in and outside the city. Furthermore, in the Appendix, the authors provided a full bibliography of the emperors, referencing waterworks one by one. It includes translations of significant original texts and inscriptions relating to the Aqueduct of Valens and Valentian water structures.

In one of the chapters of James Crow, *Water and Late Antique Constantinople: "It would be abominable for the inhabitants of this Beautiful City to be Compelled to purchase water"*[31] from the book of *Two Romes: Rome and Constantinople in Late Antiquity*, he offers a comparative examination of the two capitals Rome and Constantinople in the two centuries after Emperor Constantine and, provides essays of the foremost scholars with a variety of approaches. Crow's chapter presents a remarkable discussion on the particular subject by the underlying vulnerability of the new capital. It also describes a comparative account on the city's aqueducts; the Hadrianic Aqueduct and the Aqueduct of Valens by revealing significant points which the traditional sources missed. Crow is one of the first

[30] James Crow, *The Water Supply of Byzantine Constantinople* ed. Crow, J., Bardill, J. and Bayliss, R (London: Society For The Promotion of Roman Studies, 2008).

[31] James Crow, "Water and Late Antique Constantinople," in *Two Romes: Rome and Constantinople in Late Antiquity*, ed. Grid, L. and Kelly, G. (Oxford: Oxford University Press, 2012), 116.

scholars providing information for the separate zones of these two different aqueducts in the city. His essay surveys the subject from the foundation of the city with the new Thracian water lines until the medieval Constantinople and restoration of waterways.

Paul Magdalino specified the Valens Aqueduct as one of the remaining structures framing the urban Constantinople in his essay, *Medieval Constantinople,*[32] not by focusing on the aqueduct but rather by investigating the evolutionary sketch of the urban environment. The water supply of the city and a brief history of the construction and restoration of the aqueduct were also mentioned in the article. Çiğdem Kafesçioğlu is similarly interested in the urban and architectural culture of the city. However, the focus is on another period for this time. From the fifteenth to the eighteenth century, spatiality and urban imagination, urban waterscapes and urban visual culture have been subjected in Kafesçioğlu's studies. Her book *Constantinopolis / Istanbul: Cultural Encounter, Imperial Vision, and the Construction of the Ottoman Capital* is a remarkable contribution to the architectural and urban history of the Ottoman capital with the cultural interactions between the Byzantine, Italian, and Islamic worlds during the Renaissance era. She analyses a vast array of Ottoman, Byzantine, and Italian textual and visual sources while discussing the new visual order in the city and the new political and cultural ideology of Mehmed II. Without focusing on the aqueduct, the book includes a well-detailed chapter on the representations of Istanbul in the decades following 1459.[33] So we obtain an excessive amount of evidence assisting for comprehending the place of the aqueduct in the new visual order of the city.

After all, it can be inferred that the water structure has been studied in several ancient and contemporary references. Even though the primary sources

[32] Paul Magdalino, "Medieval Constantinople", in *Studies on the History and Topography of Byzantine Constantinople*, ed. Magdalino P. (Aldershot: Variorum, 2007), 20.

[33] Çiğdem Kafesçioğlu, *Constantinopolis/Istanbul: Cultural Encounter, Imperial vision, and the Construction of the Ottoman Capital*, (University Park: The Pennsylvania State University Press, 2009), 143.

frequently mention the structure, they provide superficial and fragmentary information. The Aqueduct was frequently addressed for the celebration of the "long-awaited" water to the city. On the other hand, many of the contemporary sources created technical surveying of the Aqueduct along with the water supply systems of the city or, devoted a part within the history of urban development of the city. The ones which have a specific focus on the Aqueduct from different perspectives are a few. However, the water structure is worthy of special mention due to its contribution to the urban landscape of Istanbul.

The Valens Aqueduct is among the most frequently referenced elements that characterized a city in the conceptual framework of the Early Byzantine city with the others; cisterns, baths, public buildings, churches, residences, and the fortification walls.[34] Its image within the urban topography has involved in a wide range of visuals regarding the Ottoman cityscape. Namely, the European bird's-eye views, city plans, miniatures, engravings, atlases, paintings, and panoramic views included the aqueduct in the various modes of representations starting from the fifteenth century (Fig. 3 and Fig. 4). The well-known skyline of Istanbul has been regarded as a recognizable "urban signature" among the other modern-day skylines.[35] This condition is still valid in the contemporary representations of the city. In fact, with the rise of photography and cinema, the visual recordings of Istanbul have been multiplied by novel media instruments. Both the urban image of the city and its notable skyline in the memory of both residents and visitors has frequently displayed the water structure in the various exemplars such as in the photographs, postcards, documentaries, famous TV series, video games and the promotion videos of Istanbul (Figure 5, Figure 6, Figure 7, Figure 8 , Figure 9 and Figure 10). To the contemporary viewers, it is still a visually appealing structure in the middle of the historical peninsula and an urban node crowning the great Atatürk

[34] Enrico Zanini, "The Urban Ideal and Urban Planning in Byzantine New Cities of the Sixth Century A.D.," in *Theory and Practice in Late Antique Archaeology* ed. L. Lavan and W. Bowden (Leiden, Boston: Brill, 2003), 199.

[35] Spiro Kostof, *The City Shaped: Urban Patterns and Meanings Through History* (Boston: Little, Brown and Company, 1991), 279.

Boulevard in conjunction with the Unkapanı Bridge on the Golden Horn (Figure 11, Figure 12). The water bridge is currently called as Bozdoğan Kemeri yet it is referred as the Valens Aqueduct through this study and, its long waterway is mentioned as the Thracian Water Supply System.

With the promise of analyzing the status of the Byzantine Aqueduct of Valens in the urban space of Ottoman Istanbul, this thesis aims to investigate the depictions of the monument and, analyze its cultural, spatial and urban interactions in the ever-changing imperial topography. Under the light of visual documents such as maps, panoramas, miniatures and other sorts of illustrations, and by framing a timeline starting from the fifteenth to eighteenth centuries, this study appreciates the 'timeless monumentality' of the Aqueduct of Valens in the city of Istanbul. The monument's urban roles and functions will be analyzed by exploring its viewing, visibility and its reciprocity with the surrounding elements, especially with the monumental ones.

Since the architectural history literature has a frequent tendency to study the Aqueduct as a single monument with the sole function of supplying water, this thesis firstly handles the wider geography to which the Valens Aqueduct has belonged. While examining the constructional phases of the intra-mural area of the capital city including the immediate surrounding of the Valens Aqueduct, the second chapter provides a closer look at the urban topography with specific attention on the water structures. As of the Late Antique period, this rapid assessment ends with the eighteenth-century Ottoman Istanbul. Since the aforementioned visual documents of this thesis cover 300 years, namely in between the fifteenth and the eighteenth centuries, the nineteenth-century changes in the social and urban fabric of Ottoman capital will not be included within the scope of this study. The second chapter further provides the story of accessing water during both the Byzantine and Ottoman periods. Within this context, the historical functioning of the water structure itself is reevaluated in pursuit of recognizing the operational significance of the early Byzantine Aqueduct to the city.

The next three chapters dwell upon the visibility of the Aqueduct of Valens regarding its spatial and experiential presence in the historical topography of Istanbul. Even though we lack texts or other documents that could explain the design precepts guiding the architectural endeavor along the cityscape, different kinds of visual documents showing the Aqueduct will ensure apprehending how this structure was conceived in the Ottoman city. Maps or the visuals regarding an urban space are surely structured by social forces rather than providing scientific constructions. Thus, they have been the representatives of "particular human way" of looking at the environment.[36] In this manner, the third chapter is devoted to the earliest conceptions of visualization of Istanbul, including the Aqueduct of Valens. The European bird's-eye views and the initial perspective plans produced in the fifteenth and the sixteenth centuries are within the scope of this examination in order to infer the status of the aqueduct in the initial representations of Ottoman Istanbul.

The fourth chapter focuses on the Ottoman experience of the imperial capital. Regarding the Aqueduct, three visual productions of Ottomans including sixteenth-century miniature-maps and seventeenth-century bird's-eye views from the city atlases are under investigation. These are rather significant for directly understanding the first-hand perceptions of the residents of the capital and the status of the Valens Aqueduct in the urban topography. Moreover, four technical documents, namely the maps of Ottoman water supply systems showing the intra-mural water network distributed through the Aqueduct are examined with respect to the illustrative features of the water structure and its further urbanistic connections with the rest of the urban fabric.

For the fifth chapter, the study turns to a single mode of representation which has accumulated a wide range of instances starting from the sixteenth century. The panoramic views of the capital city have emerged in the form of side views representing the northern profile of Istanbul.This section of the thesis covers nine

[36] J.B. Harley, *The New Nature of Maps: Essays in the History of Cartography*, ed. Paul Laxton (Johns Hopkins University Press, 2001), 152-153.

examples of recordings of the city's monumental front on the northern heights of the peninsula in conjunction with the Valens Aqueduct which has been observed in all the originally produced panoramic views. It establishes a broader timeframe by focusing on the sixteenth to eighteenth-century representations of the well-known skyline of Istanbul.

In conclusion, the sixth chapter explores the status of the Byzantine Aqueduct of Valens in the historical topography of Ottoman Istanbul. Following twenty visual documents categorized in three sections as the initial, Ottoman and panoramic compositions, this study positions the water structure as an urban monument that transcends its functional mission in time. The final evaluation of the Valens Aqueduct further implicates its symbolical roles pertaining to the capital city.

CHAPTER 2

APPROACHING THE AQUEDUCT OF VALENS

2.1. A Brief Urban History of Constantinople

The city of Constantinople, within its strategic location, became the capital of three great empires. It was a magnet of ambition, a cultural metropolis, and a display of imperial power.[37] To Constantine (272-337), the city was the commemoration of the unification of the Roman Empire under one ruler after his naval victory over *Licinius* in the battle of *Chrysopolis* on September 18, 324.[38] The re-founded city over *Byzantion* was called *Nova Roma* (the New Rome) for declaring the new ruler and the new imperial capital (Fig. 13**)**.[39]

Before Constantine, the city was first rebuilt along its Roman lines in 196 A.D. by Septimus Severus (145-211). It remained as a small provincial *emporium* yet an urbanized town to a degree.[40] Several of temples, those of the Apollo, Aphrodite, Artemis, Demeter, Poseidon, Zeus, and Helios, as well as an

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[37] Paul Magdalino, "Constantine VII and the Historical Geography of Empire," in *Imperial Geographies in Byzantine and Ottoman Space*ed. S. Bazzas, Y. Batsaki and D. Angelov (Cambridge, Massachusetts: Center for Hellenic Studies, Harvard University Press, 2013), 25.

[38] Richard Krautheimer, *Three Christian Capitals: Topography and Politics* (Berkeley, Los Angeles and London: University of California Press, 1983), 42.

[39] On the naming of the city at the beginning of the 4th century see, *Concile de Constantin* 381, canon 3, vcav: Mansi, Concilia 3.560. Also see, John Demetrius Georgacas, "The Names of Constantinople," *Transactions and Proceedings of the American Philological Association* 78 (1947): 353.

[40] Speros Vryonis, "Byzantine Constantinople and Ottoman Istanbul: Evolution in a Millennial Imperial Iconography," in *The Ottoman City and Its Parts Urban Structure and Social Order,* edited by Irene A. Bierman, Rifa'at A. Abou-el-haj and Donald Preziosi, (Aristide D. Caratzas, 1991) 13.; The word "emporium" is used for a center or a place of trade in the Latin Dictionary https://www.online-latin-dictionary.com/latin-english-dictionary.php?parola=emporium.

amphitheater, resided on the encircled Acropolis.[41] Next to the old Greek Harbor of the city, the second harbor of *Neorion* was located by Severus on the waterfront of the Golden Horn, around the tip of the peninsula.[42] Among the essential public structures, the *Tetrastoon* which was later transformed into the Byzantine Augusteion was a crowded urban space of the city of Byzantion. At a close location to the agora, the incomplete structures of the Baths of *Zeuxippus* and a Hippodrome resided and, the grand artery of Portico of Severus linked the agora with the city gate constructed by Severus.[43]

The small city of *Byzantion* was rendered as potentially more prominent than the three significant cities of Mediterranean, Rome, Antioch, and Alexandria.[44] Due to its proximity to great sea routes and linking land highways, natural military security as surrounded on three sides by the sea, maritime advantages of harbors and the fertile agricultural hinterlands of Thrace and Bithynia, the city was praised as particularly suited to be the "receptacle of imperium."[45] After conquering this city, Constantine the Great sanctioned the big-scale construction projects within the capital. As the first undertaking, the emperor extended the city limit nearly three kilometers beyond the western perimeter.[46] By sustaining the urban scheme designed by Septimus Severus, the founder later completed the construction of monumental structures such as the Hippodrome, the *Tetrastoon*, the Basilica and the

[41] Kuban, *Istanbul*, 23.

[42] On the Byzantine waterfront of the Golden Horn see, Namik Erkal, "Haliç extra mural zone: a spatio temporal framework for understanding the architecture of the Istanbul city frontier" (PhD. diss. Middle East Technical University, 2001).

[43] Wolfgang Müller-Wiener, *Bildlexikon zur Topographie Istanbuls. Byzantion, Konstantinupolis, Istanbul bis zumBeginn des 17. Jahrhundert* (Wasmuth, Tübingen, 1977), 64; Albrecht Berger, "Streets and Public Spaces in Constantinople," *DumbartonOaksPapers* 54 (2000): 165.

[44]Vryonis, 13.

[45] Ibid.

[46] Bassett, Sarah, *The Urban Image of Late Antique Constantinople*, (Cambridge University Press: 2014), 23.

Baths of *Zeuxippus*.[47] His imperial resident, the earliest phase of the Great Palace, had existed to the south of the *Augusteion*. A large four-way arched structure was built across the starting gates of the Hippodrome. The so-called *Milion* marked the linking points of the roads from Rome and Thessalonica and symbolized the transfer of the power to the East.[48]

The Mese was established as the main ceremonial artery and remained with considerable significance in the urban layout of the imperial city throughout history.[49] Along the thoroughfare, the emperor built grand urban projects. As the civic centers of the Constantinian city, the Forum of Constantine was erected with the monumental column in front of the Old City Gate of Severus, besides the constructed public plaza called the *Forum Tauri*.[50] With the intention of creating the 'Christian City," the most notable church of the period, the Hagia Sophia was built on the First Hill in addition to the Cathedral of Hagia Irene, the Church of St. Acacius and the one located outside the walls, the Church of St. Mokios. The new capital sustained its ancient religious culture by accommodating two temples as well; the Rhea and Tyche.[51] After all, the city presented a mixture of religious culture which was in parallel with the idiosyncratic religious identity of Constantine the Great. The divine authority of the emperor was evoked in the large-scale urban

[47] Müller-Wiener, *Bildlexikon,* 19; Bassett, *The Urban Image*, 23.

[48] Paul Magdalino, "Byzantium = Constantinople," in *A Companion to Byzantium* ed. Liz James (Chiscester: John Wiley & Sons, 2010), 50. See also, Pelin Yoncacı Arslan, "Christianizing the Skyline: The Appropriation of the Pagan Honorary Column in Early Constantinople" (PhD diss., University of California Los Angeles, 2015), 12.

[49] Zafer Toprak and Oya Bandar, *Kıtaların, Denizlerin, Yolların, TacirlerinBuluştuğu Kent İstanbul*, ed. Edhem Eldem (İstanbul: İstanbul TicaretOdasıYayınları, 1997); Doğan Kuban*, İstanbul Bir Kent Tarihi* (Turkiye Ekonomik ve Toplumsal Tarih Vakfi, 2004), 70-71.

[50]Müller-Wiener, *Bildlexikon,* 19.

[51]Bardill, Jonathan, *Constantine, Divine Emperor of the Christian Golden Age* (Cambridge University Press: 2012), 253.

monuments; the Column of Constantine and his mausoleum as well as in the naming of the city as Constantinople.[52]

Starting from the foundation of the imperial city, the population of the new capital quite rapidly increased and the city reached the first peak in about A.D. 350-360 when the number of residents was around a half million.[53] The growing city encountered the problem of scarcity of water. Thus, the first Byzantine water distribution line was donated to the newly founded capital under the reign of Constantine II, yet it was completed by Emperor Valens in 368.[54] The monumental water bridge, the Aqueduct of Valens, was the last phase of this system which supplied water in the walled circuit of the city.[55] Over the valley in between the Church of Holy Apostles and the Capitolium, the aqueduct bridged the Third and the Fourth Hills. Thus, it sustained a position that is among the most significant urban instruments erected in the *intra muros* in service of the residents.

In the next century, the population continued to grow and the borders of the city expanded with the erection of new land walls during the reign of Emperor Theodosius II (401-450). It was one of the distinctive stages changing the appearance of Constantinople (Fig. 14).[56] The city area grew from 6 square km to the 14 square km and the fourteen administrative zones were generated as recorded

[52] Vasiliki Limberis, *Divine Heiress, the Virgin Mary and the Creation of Christian Constantinople* (London: Routledge Ltd., 1994), 12.

[53] Cyril Mango, *Studies on Constantinople* (Aldershot, Hampshire, Brookfield.: Variorum, 1993), 118. Mango estimates the population of Constantinople at its highest as as between 300.000 to 400.000 in *Le Développement,* 51. On the other hand, Durliat argues the number over 500.000, see, Jean Durliat, *De la ville antique à la ville byzantine* (Rome: Le problème de subsistance, Collection de l'ÉcoleFrançaise de Rome, 1990) 259-261, 269.

[54] Mango, "The Water Supply of Constantinople," 12.

[55] Magdalino, Paul, "Medieval Constantinople," 68.

[56] Müller-Wiener, *Bildlexikon,* 20.

in *Notitia Urbis Constantinopolitanae*.[57] During the Theodosian dynasty (Theodosius I, Arcadius, Theodosius II, and Marcian) a number of imperial forums and monumental civic spaces were built along the colonnaded avenues.[58] The public forums of Theodosius and Arcadius with their honorific columns stood on behalf of the emperors along the western stripe of the Mese.

Many utilitarian projects such as ports, cisterns, and public baths were completed in this era. The city came into prominence with its economic activities; the storehouses and great harbors along with the geographical location of the city enabled intercontinental trade and made the capital a significant nodal point within the trading networks.[59] When many western cities stagnated, Constantinople sustained and expanded its affluence in both cultural and physical wealth. In addition to the renovation of the former supply lines along with the Aqueduct of Valens, the newly-added waterline from Belgrade supplied water to the city, and the *Nymphaeum Maximum* marked the Forum of Theodosius.[60] The dynasty continued the establishment and the renovation of the principal religious centers in the city. Among them, one can count the second phase of the Church of Hagia Sophia around 415, along with the construction of other churches, the Church of Theotokos Chalkoprateia and the Church of Theotokos Hodegetria.[61] This was a process of revitalizing the capital as a continuation of the Constantinian tradition of monumental public, religious, and utilitarian projects.[62] The urban program of the

[57] See, *Notitia Dignitatum: Accedunt Notitia Urbis Constantinopolitanae et Laterculi, Prouinciarum*, ed. O. Seeck (Berlin: Apud Weidmannos, 1876); Mehmet Karakuyu, Saadet Tuğçe Tezer and Hatice Balık, "İstanbul'un Tarihsel Topografyası ve Literatür Değerlendirmesi," *Türkiye Araştırmaları Literatür Dergisi* 8, no. 16 (2010): 35.

[58] Bassett, *The Urban Image*, 80.

[59] Müller-Wiener mentioned the economic significance of the city along with being an imperial capital in *Bildlexikon*, 22.

[60] Ibid., 273.

[61] Ibid., 21.

[62] Bassett, *The Urban Image*, 81.

dynasty was an expression of imperial greatness that was shaped after a practical necessity of the accommodation of a simultaneously growing population.

Justinian's reign (527-565) marked the addition of a series of major buildings to the urban environment of the city's essential layout. During this period, the Hagia Sophia was remodeled and reshaped, making the church more majestic than before. The rebuilding of the Great Palace, the Chalke Gate, the Augusteion, the Baths of Zeuxippos, and the porticoes of the Mese as far as the Forum of Constantine were among the subsequent projects of the emperor.[63] There were a large number of churches and shrines erected throughout the city that made the capital a Christian locus. Justinian renovated one of the key features of the urban environment and Christianity, the Church of Holy Apostles. He added a new mausoleum for his wife, Theodora. A series of constructions for the suburban palaces and public houses are recorded in the city as well.[64]

Starting from 532, nearly parallel to the origin of the reign of Justinian, almost every decade, the city experienced fires which began to destroy the built environment of the capital. One of the big fires started after the Nika Riot and damaged the Church of Hagia Sophia and Hagia Irene, the Great Palace, the Baths of *Zeuxippus*, the *Augusteion*, the Senate House and the area leading to the Forum of Constantine.[65] In the aftermath of the disorder, a renovation phase was necessitated for the urban space. Nevertheless, the 7th-century intervals of earthquakes and diseases of epidemic proportions followed because of the gradual decline in the economic activities of the empire; construction endeavors were limited for only the repairs and renovations of the encircling walls of the city.[66] From this point on, the

[63] Ibid., 122.

[64] See also Prokopius, *De Bello Persico*, I, 10. 5-1, 11,25.

[65] Procopius, *B.P*., 1, 24; Bassett, *The Urban Image*, 122. See especially, Ernest Stein, *Histoire du Bas-Empire* (Paris, 1949), pp. 449-456; Tony Honoré, *Tribonian* (Ithaca, N.Y., 1978), pp. 53- 56; Walter Emil Kaegi. Jr., *Byzantine Military Unrest*, 471-843: *An Interpretation* (Amsterdam: Adolf M. Hakkert, 1981), pp. 41-42.

[66] Müller-Wiener, *Bildlexikon*, 23.

enemies directly threatened the capital city; the forces of Persians, Avars, Arabs, and Bulgarians surrounded the city many times.[67]

Medieval Constantinople sustained the framework of urban life in the two limited categories offered by Paul Magdalino. The first consists of the great structures relating to the basic needs of the city life in the Middle Ages: "the water supply, the defense, public worship, and the imperial governance."[68] The second category of monuments are the Church of Hagia Sophia and the fortified walls of the city that were the prominent landmarks appeared in the medieval mosaics and manuscripts.[69] However, the imperial city did not fully operate; the great baths were all in ruins, the theatre was no longer available for people, and some of the great squares functioned as livestock markets.[70] These resulted in the reduced population of the capital with a simultaneous decrease in the construction activity as well.[71] On the other hand, several dozen churches survived since the sixth century.[72] All these showed the sustained early Christian city, which was influenced by the endeavor of Justinian and his successors for the construction and renovation of religious buildings (Fig. 15).[73]

Between the period of the seventh and the tenth centuries, the remaining buildings are suggested to be a few in numbers in Constantinople.[74] Numerous

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[67] Ibid.

[68] Magdalino, "Medieval Constantinople," 7.

[69] Ibid. The ninth or tenth century mosaic in the vestibule of Hagia Sophia shows the fortifications and the church of Hagia Sophia. For its analysis see Günter Prinzing, "Das Bild Justinians I. in der Überlieferung der Byzantinervom /. Bis 15. Jahrhundert," *Fontes Minores* 7 (1986), pp. 6-14. The manuscriot miniatures of Vaticanus gr. 1851 which was composed in 1179 integrated the two elements of fortress and the church, see, Iohannis Spatharakis, *The Portrait in Byzantine Illuminated Manuscripts* (Leiden: Brill, 1976), pp. 210-230.

[70] Magdalino, "Medieval Constantinople," 17.

[71] Ibid., 18.

[72] Ibid., 30.

[73] Ibid., 54.

[74] Müller-Wienner, Bildlexikon, 23.

monasteries were destroyed during the period of iconoclasm; they experienced a big loss of territories, and some of them were closed down by Constantine V.[75] Nevertheless, from the ninth century onwards, the monasteries started to restore their prominent role as social and spiritual centers in the capital.[76] There were modest monastic churches as the representatives of the development of the urban fabric in the city along with the fortified walls, the water structures, imperial governance buildings, the monumental church of Hagia Sophia, and the ones remaining from the early Byzantine times (some churches, cisterns and the remains of the Hippodrome and the Great Palace).[77]

At the end of the medieval period, the urban configuration of the city evolved to several minor centers.[78] Between the two main ones, the first was at the northern frontier, comprised of several aristocratic houses, some monasteries and the Blachernae Palace which was the only imperial residence in use.[79] The construction of the palace and renovation of the fortifications by Alexios I(1081-1118) reduced the prominent role of the city center and the function of the Great Palace as the emperor's residence.[80] The eastern part of the city, from the Acropolis to the Hagia Sophia contained the second center of the population with a group of monasteries in

[75] Ibid. Also see, *Patria*, II, 90; III, 31, ed. Preger, Scriptores, p. 226; Albrecht Berger, *Untersuchungenzu denPatria Konstantinupoleos*, (Bon: Habelt, 1988), 282-4. On the converted churches into warehouses and workshops during the iconoclasm, see, Theodor Preger, *ScriptoresoriginumConstantinopolitanarum*, (Lipsiae: B. G. Teubner, 1901), 148, 217, 258; Berger, *Untersucbungen*, 79-80, 558-9, 745, 578; *TheophanisChronographia*, ed. Carl de Boor (1883), 439-440.

[76] Ibid.

[77] Magdalino, "Medieval Constantinople," 8.

[78] Ibid., 75. See also, Nicolas Oikonomides, *Hommes d'affaires grecs et latins a` Constantinople, XIIIe–XVe sie`cles* (Montreal, 1979,) especially pp. 106-7; George Majeska, "TheSanctification of the First Region: Urban Reorientation in Paleologan Constantinople," *Actes duXV Congres international d'Etudesbyzantines*, II (Athens 1976), pp. 359-65.

[79] Magdalino, "Medieval Constantinople 76.

[80] Müller-Wienner, *Bildlexikon*, 24. For a detailed background on the Alexios's favor of Blachernae Palace see Magdalino (2007) 78-84.

this new configuration.[81] Since the southern harbors did not operate, the new commercial focus emerged between these two centers, near the Golden Horn.[82] At the same time, the former Byzantine suburb of Pera was converted into an independent Genoese colony that dominated the trade between the Black Sea and the Mediterranean.[83]

The period of decline in the Byzantine Empire, at the end of the twelfth century, began during the reign of the Angelos Dynasty [84] and accelerated with the Latin Invasion of Constantinople in 1204.[85] The urban system of the Byzantine capital had been demolished and, the serious depopulation in the capital resulted; a notable percentage of the residents, one-third of 400,000, became homeless during the occupation.[86] Even though the construction activity of the Christian buildings continued with the effort of the imperial dynasty and the aristocrats, the ongoing battles and disasters did not allow for an extensive restoration process in the city.[87]

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[81]Magdalino, "Medieval Constantinople 76.

[82] Müller-Wienner, *Bildlexikon,* 24.

[83]Magdalino, "Medieval Constantinople 76; Also see Michel Balard, *La Romanie Genuise* (Rome: 1978), 179-198.

[84] Müller-Wienner, *Bildlexikon,* 25. On more about the dynasty and the story of final collapse of the Byzantine Empire see, Edwin Pears, *The Fall of Constantinople,* (New York: Harper&Brothers, 1886); Filip Van Tricht, *The Latin Renovation of Byzantium The Empire of Constantinople (1204–1228)*, trans. P. Longbottom (Leiden: Brill, 2011).

[85] Müller-Wienner, *Bildlexikon,* 25.

[86] In the course of thirteen months, three major fires destroyed the city, see, Edmond Faral, *La conquête de Constantinople*, (Paris, Société d'édition "Les Belles lettres", 1938), ch. 247. On the crusader to Constantinople see also, Robert of Clari, *The Conquest of Constantinople*, trans. E. Holmes (New York: Octagon Books, 1966), especially 71-77. Shaw writed down: "About this time, certain Greek nobles of the highest rank left Constantinople and a great number of them crossed over the straights to that part of the empire on the borders of Turkey." See, *Joinville and Villehardouin: Chronicles of theCrusades*, tr. M.R.B. Shaw (Baltimore: Maryland, 1963), 98.

[87] Müller-Wienner, *Bildlexikon,* 25. Much of the annihilation or damage of the buildings were results of "deferred maintenance" not by the intentional vandalism of Latins. The Nicean Emperor send money for funding the restoration of the Church of Holy Apostles. See the examples in, Alice-Mary Talbot, "The Restoration of Constantinople under Michael VIII," *Dumbarton Oaks Papers* 47 (1993): 248.

In the second part of the thirteenth century, an endeavor for providing security and re-building the nearly ravaged urban space of Constantinople proceeded after the capital was recaptured from the Latins by Mikhail Palaiologos (1259-1282).[88] The desolate and depopulated city far from its fromer glory experienced an urgent recovery throughout the reign of the emperor;[89] the fortification walls, the Great Palace and the Blachernae Palace, the churches and monasteries along with Hagia Sophia were among the restored structures.[90] To celebrate the restitution of the Byzantine capital, the emperor eventually erected a commemorative column in front of the main door of the Holy Apostles.[91]

In the last centuries, after the great territorial losses, the capital remained as the nucleus of the Byzantines with a few outlying districts. The City of Constantinople could not maintain political, economic, and military operations.[92] The colonnaded streets had already disappeared between the twelfth and fourteenth centuries; most of the public buildings were now timbered structures.[93] Ibn Battuta, the Arab traveler of Constantinople, described the status of the imperial centrum of the fourteenth century as the thirteen inhabited districts within its circuit.[94] Thus, the

[88] Ibid., 245-246.

[89] The city was said that a full of ruin; a few buildings were survived from the big fires. See, *Gregoras, Hist*., I, 87.23-88.5 and 190.11-12.

[90] Talbot, "The Restoration of Constantinople," 249-257. George Pachymeres, *Relations Historiques*, ed. A. Failler, tr. V. Laurent (Paris, 1984) I, 215.26-27; 251.6-14; 251.26-252.1-2; also see, Van Millingen, *Byzantine Constantinople,* 109-110, 188.

[91] The column did not survive today; the information comes from the original sources, *Georgii Pachymeris de Michaele et Andronico Palaeologis libri tredecim*, ed. Bekker I. Weber, (Bonn: 1835) II: 234.16-22; Gregoras, *Hist*., I, 202.8-13.

[92] Müller-Wienner, *Bildlexikon,* 27. 6. For thechronology of the fourteenth century see Peter Charanis, "An Important Short Chronicle of the Fourteenth Century," *Byzantion*, XIII (Brussels, 1938): 335- 362. For the administration of this period, see Ernst Stein, "Untersuchungenzurspät byzantinischenVerfassungs- und Wirtschaftsgeschichte," *Mitteilungen*. *Os -manischenGeschichte* II, 1. u. 2. Heft (Hanover, 1925), 1-62.

[93] Müller-Wienner, *Bildlexikon*. 27.

[94] Ibn Battuta, *Travels in Asia and Africa: 1325-1354*, ed. Eileen Power, trans. H. A. R. Gib (Oxon: Routledge, 2013), 95.

capital city had turned into dispersed villages with a few numbers of notable structures in the urban space including the Church of Studios Monastery.[95] The Italian domination of the city's commercial life and the non-stop attacks to the empire by neighboring people, such as Turks and Slavs, made the city stagnated and prepared the collapse of the empire.[96] Eventually, the capital was captured in 1453 after a series of Ottoman attacks.[97]

In the spring of 1453, before its fall, Constantinople was a partly ruined city which was described by George Scholarius as "a city of ruins, poor, and largely uninhabited."[98] Its population might have numbered fifty thousand at most.[99] The very first concern of Mehmed II in the occupied city of Constantinople was the repopulation of the city as mentioned in the account of Kritovoulos, *History of Mehmed the Conqueror*.[100] With an imperial command sent to every part of his realm, he ordered as many inhabitants as possible to be transferred to Constantinople.[101] The Sultan also desired to reconstruct the city as it was the locus

[95]Müller-Wienner, *Bildlexikon*, 27.

[96] Peter Charanis, "Internal Strife in Byzantium During the Fourteenth Century," *Byzantion* 15 (1940): 208.

[97] Müller-Wienner, *Bildlexikon*, 28.

[98] On the fall of Constantinople see, Edwin Pears, *The Destruction of the Greek Empire and the Story of the Capture of Constantinople by the Turks*, (London, 1903); Robert Browning, "A note on the capture of Constantinople in 1453," *Byz* 22 (1952), 379-387; M. L. Concasty, "Les 'Informations' de Jacques Tedaldi sur le siege et la prise de Constantinople," *Byz* 24 (1954): 95-110; Steven Runcinman, *The Fall of Constantinople* (Cambridge University Press, 1965); J. R. Melville Jones, The Siege of Constantinople 1453:seven contemporary accounts, (Amsterdam: Hakkert, 1972).

[99] Schneider, Alfons Maria, *Die BevölkerungKonstantinopelsim XV. Jahrhundert*, Nachrichten der Akademie der Wissenschaften in Göttingen (1949), 236. See also, Halil İnalcık, "The Policy of Mehmed II toward the Greek Population of Istanbul and the Byzantine Buildings of the City", *Dumbarton Oaks Papers*, vol 23/24 (1969/1970), 231.

[100] Kritovoulos, *History of Mehmed the Conqueror*, trans. C. Riggs. (Connecticut: Greenwood Press, 1970), 82.

[101] Ibid.

of the Ottoman world.[102] Tursun Beg delivered the proclamation of the sultan to his viziers and officers; "his capital was to be Istanbul, and he ordered the building of the palace."[103] Throughout the reign of Mehmed II, his main ambition and preoccupations accordingly conducted for the revitalization of the half-ruined capital.

After the conquest, the Ottomans selectively appropriated the imperial heritage of Byzantium, yet they significantly enhanced the former urban layout with a series of imperial, commercial and religious structures.[104] Starting with converting the Hagia Sophia into a mosque, the initial urbanizing activities of Mehmed II proceeded with locating the First Palace (1458) at the center of the historical peninsula on the site of Forum Tauri, close to the eastern end of the Valens Aqueduct.[105] This region was converted into a commercial district by the construction of the vast market area near the palace.[106] Shortly after the foundation of the First Palace, the New Palace complex (*Saray-I Cedid-I Amire*) was constructed on the Acropolis of *Byzantion in* 1465. A couple of sources remarked upon the reason for the selection of this site on the charming edge of the peninsula as the transferrable abundant water.[107] In this region, adjacent to the ruins of the

[102] Mertol Tulum, *Tursun Bey: Tarih-I Ebü'l-Feth*, (İstanbul: İstanbul Fetih Cemiyeti, 1977), 67-68. On the reconstruction of the city by Mehmed II, see Kafescioğlu, *Constantinopolis/Istanbul.*

[103] Tulum, *Tursun Bey,* 66-67. Kritovoulos, *History*, 82. On the foundation of the Ottoman capital over the Byzantine legacy, see also, Çiğdem Kafesçioğlu, "Reckoning with an Imperial Legacy: Ottomans and Byzantine Constantinople," in *The Fall of Constantinople and the Transition from the Medieval to the Early Modern Period* ed. A. Kioussopoulou,(Rethymnon: University of Crete Press, 2005), 23-46.

[104] Ibid, 26-27. On general development during the reign of Mehmed II see, Ali SaimÜlgen, *Fatih Devrinde İstanbul1453-1481*, (İstanbul: Vakıflar UmumMüdürlüğü Neşriyatı, 1939).

[105]Müller-Wiener, *Bildlexicon*, 29.

[106] Halil İnalcık, "The Rebuilding of Istanbul by Sultan Mehmed the Conqueror," *Cultura Turcica* vol 4 (1967): 9; Kritovoulos, *History*, p119.

[107] Gülru Necipoğlu, ""Virtual Archaeology" in Light of a New Document on the Topkapı Palace's Waterworks and Earliest Buildings, circa 1509," *Muqarnas* 30 (2013): 322. See also, Gelibolulu Mustafa Ali, *Künhü'l Ahbar*, ed. By M. H. Şentürk (Ankara: Türk Tarih Kurumu, 2003), 65.

Great Palace of Constantine and the Hagia Sophia, the Topkapı Palace crowned the tip of the peninsula thus dominated the Two Continents and the Two Seas.[108]

There was one more notable project of the capital on the Fourth Hill, to the western rear of the Aqueduct of Valens. The so-called Fatih Mosque Complex (1470), the first Friday Mosque in the city which occupied the location of the "dilapidated" site of the church of the Holy Apostles after ten years of the conquest.[109] The selection of the site of the first sultanic mosque complex along with funerary structures on "the principal burial place of Byzantine emperors" within the walled city represented the Ottoman succession of Constantinople or the new "Emperor of Constantinople"(Fig. 2).[110] The ruler's congregational mosque created the multi-functional complex which offered a set of novelties on the subsequent architectural flavor of Ottomans.[111]

In subsequent years, the viziers and dignitaries devoted pious complexes which were grouped around a mosque and contained a set of sub-spaces for a theological college, a school, a public kitchen, and commercial buildings as a khan or a market.[112] Each of these foundations designated a center around and became the

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[108] On the erection of the New Palace on the Byzantine Acropolis see, Kritovoulos, 140, 207-208. See also, Necipoğlu, Architecture, Ceremonial, and Power: The Topkapi Palace in the Fifteenth and Sixteenth Centuries (Cambridge, the MIT Press; New York, The Architectural History Foundation, 1991.)

[109] Kafesçioğlu, *Constantinopolis/Istanbul*, 66; Evliya Çelebi, *Seyahat-Name*, Istanbul, 1314 A. H., I, p. 138. For more detail on the Fatih Mosque see, Mehmet Aga-Oglu,"The Fatih Mosque at Constantinople," *The Art Bulletin* 12, no. 2 (1930): 179-95. On the operation of the sultan's first pious building, see, Ömer Lütfi Barkan, "Fatih Camii ve İmareti Tesislerinin 1489-1491 Yıllarına Ait Muhasebe Bilançoları," *Istanbul Üniversitesi İktisat Fakültesi Mecmuası* 23 (2015): 297-341.

[110] Gülru Necipoğlu, "Visual Cosmopolitanism and Creative Translation: Artistic Conversations with Renaissance Italy in Mehmed II's Constantinople," *Muqarnas* 29 (2012): 25. On the occupation of the site of the church see, Janna Israel, "A History Built on Ruins: Venice and the Destruction of the Church of the Holy Apostles in Constantinople," *Journal of Historic Preservation, History, Theory, and Criticism*, Vol. 9, No. 1 (Summer 2012): 107-122.

[111] Çiğdem Kafesçioğlu, "The Visual Arts," In *The Cambridge History of Turkey*: *The Ottoman Empire as a world power*, 1453-1603, ed. S. N. Faroqhi & K. Fleet (New York: Cambridge University Press, 2013): 462-465.

[112] İnalcık, "The Policy of Mehmed II," 237.

nucleus of their quarters.[113] Constantinople eventually became the inhabited capital of Ottomans and the locus of power through inheriting the legacy of Byzantinians.

Fatih's immigration policies to the new capital proceeded during the reigns of the subsequent Sultans; Bayezid II (1447-1507) and Selim I (1470-1520).[114] The existing commercial and social center in between the Fatih Mosque and the *Kapalıçarşı* (Covered Bazaar) became condensed after the erection of the Mosque-Complex of Bayezid II on the site of the Forum of Theodosius in 1505.[115] During his reign, the big earthquake, "Kıyamet-i Şuğra" caused considerable damage to the urban structures; a significant section of the Land Walls was destroyed, and the water submission line to the city along with the eastern part of the Aqueduct of Valens was impaired.[116] The sources record further damage of the urban monuments such as the cracking of the dome of the Mehmed II's mosque and, the collapsing dome of Bayezid II's mosque with the toppling of one of its minarets.[117] Some buildings in the inner part of the Topkapı Palace along with a section of its sea walls were among the reconstructed structures after the disaster as well.[118]

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[113] The significant sources on those building complexes are the endowment deeds for the foundations by the Sultan and the viziers. Relating to Mehmed II's foundations see, *Fatih Mehmet II Vakfiyeleri* (Ankara, 1938), 6-8. On the subject in general see, Ömer Lütfi, Barkan, "Şehirlerin Teşekkül ve İnkişaf Tarihi Bakımından Osmanlı İmparatorluğunda İmaret Sitelerinin Kuruluş ve İşleyişine Ait Araştırmalar," *İstanbul Üniversitesi İktisat Fakütesi Mecmuası*, 23/1-2 (1962-63): 239-296. See also, EkremHakkı Ayverdi, *Fatih Devri Sonlarında İstanbul Mahalleleri, Şehrin İskanı ve Nüfusu,* (Ankara: Vakıf Umum Müdürlüğü, 1958).

[114] Müller-Wiener, *Bildlexicon*, 29.

[115] Ibid.

[116] Ibid. See also, Necipoğlu, Gülru, "Virtual Archeology," 320.

[117] The early sixteenth century account of Ruhi Edrenevi is the most significant historical recording of the earthquake of 1509. Necipoğlu cited this source in "Virtual Archaeology," 34, Ruhi Edrenevi, *Tārīḫ-iĀl-i ʿOs̱mān* (Berlin, Staatsbibliothek,) Ms. Or. Quart 821, fols. 191r–192v. Several of Ottoman chroniclers also mentioned the big disaster, see, Kemapaşazade, *Teravih-, Al-i Osman* which covered the period from the foundation of the Ottoman State to the reign of Sultan Süleyman I.

[118] See, Kemalpaşazade (İbn Kemal), *Teravih-i Al-i Osman. VIII. Defter (transkripsiyon),* ed. Ahmet Uğur (Ankara, 1997), 279-80.

When the grand mosques of Şehzade Mehmed (1548), Süleyman (1558) and Mihrimah (1565) pervaded the skyline in the sixteenth century, the northern city silhouette acquired Islamic complexion.[119] The positioning of these religious complexes on the northern sections of the city shifted the prior settlement area to this side of the peninsula. This was regarded as a deliberate choice of the chief architect Sinan as an attempt to shape a monumental front of the Golden Horn and represent the imperial and religious outlook of the capital. During the sixteenth century, the architect became the prominent figure in influencing imperial policy in support of public construction projects both in the capital and other cities. A number of the mosque-complexes prevailing in the capital were constructed under the supervision of Sinan with the sponsorship of the viziers and other members of the ruling elite.[120] The architectural patronage of the ruling group was tangible in the construction of public institutions, charities, and the infrastructural projects throughout the capital and the imperial territories as well.[121]

The rehabilitation of the infrastructure performed by Sultan Süleyman was among the most extensive urban projects of the sixteenth century. The renovation activities of the already running water networks from the Halkalı region and the bestowal of the Kırkçeşme Water Submission System from the north of the city were significant investments to the capital. In particular, architect Sinan's large-scale construction project of Kırkçeşme Network has been recorded and praised many times in both the original and the contemporary written sources.[122]

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[119] On the chief architect Sinan's contributions to the urban image of Constantinople, see, Gülru Necipoğlu, *Sinan Çağı: Osmanlı İmparatorluğu'nda Mimari Kültür,* (İstanbul: İstanbul Bilgi Üniversitesi, 2013), 140-165.

[120] Müller-Wiener, Bildlexicon, 30-31.

[121] Kafesçioğlu, "The Visual Arts," 512-516.

[122] Eyyûbî, *Menakıb-ı Sultan Süleyman: Risale-iPadişahname*, ed. M. Akkuş (Ankara: Kültür Bakanlığı Yayınları, 1991), 159; Eremya Çelebi Kömürciyan, *İstanbul Tarihi: XVII. Asırda İstanbul*, trans. H. D. Andreasyan (İstanbul: İstanbul Üniversitesi Edebiyat Fakültesi Yayınları, 1952), 20; Sa-i Mustafa Çelebi, *Yapılar Kitabı: Tezkiretü Bünyan ve Tezkiretül Ebniye,* trans. Hayati Develi and Samih Rifat (İstanbul: Koçbank, 2002), 46-60. On the Kırkçeşme Water Network see, Kazım Çeçen, Mimar Sinan ve Kırkçeşme Tesisleri, (İstanbul: İSKİ Yayınarı, 1998); Kazım Çeçen,"Sinan'ın

Compared with the intense building activities of the reign of Süleyman I, those of his successors', Selim II (1566-1574) and Murad III (1574-1595) were rather inconsequential in the following period. The completion of the Valide Sultan Mosque or the New Mosque was delayed from the end of the sixteenth century. Due to financial restrictions, the mosque was eventually in use in the year of 1665.[123] For the seventeenth century, the only prominent structure evoking the splendor of the sixteenth-century capital was the Mosque-Complex of Ahmed I, erected on the Hippodrome (1609).[124] On the other hand, a multitude of relatively-small complexes had been constructed on behalf of the viziers and statesmen. Most of these buildings had created urban nodes on the Byzantine thoroughfare, the Mese which was to be known as *Divanyolu* in the eighteenth century.[125] The section of the main artery between the At *Meydanı* and the Bayezid Square was occupied by the tombs and mosque-complexes of Koca Sinan Paşa (1593), Köprülü Mehmed Paşa (1661), Kara Mustafa Paşa (1683) and Çorlulu Ali Paşa (1708). The complexes of Kuyucu Murad Paşa (1606), Seyyid Hasan Paşa (1745), Damat İbrahim Paşa (1720) and Amcazade Hüseyin Paşa (1700) then, resided the northern section of the Mese through Edirnekapı which is almost parallel to the Aqueduct of Valens.[126] Another branch of the monumental street that linked the Golden Gate and parallel to the shores of Marmara had already expired in the urban configuration of the Ottomans since the city had turned its silhouette towards the Golden Horn.

During the 18th century, the Ottoman architectural program in the capital started to differ from the classical style of 16th-17th centuries, and imported elements

Yaptığı Su Tesisleri." *Mimarbaşı Koca Sinan: Yaşadığı Çağ ve Eserleri*, 1 (1988): 437-461.

[123] Müller-Wiener, Bildlexicon, 31.

[124] Ibid.

[125] On the changes in the ceremonial axis during both of the empires, see, Maurice Cerasi, "The Urban and Architectural Evolution of the Istanbul Divanyolu: Urban Aesthetics and Ideology in Ottoman Town Building," Muqarnas, Vol. 22 (2005), pp. 189-232.

[126] See, Müller-Wiener, Bildlexicon, 269-270.

from European art and architecture began to appear.[127] This period of architecture is defined by Aptullah Kuran as a continuation of the well-established sixteenth-century classical architecture as a mannerism on the one hand and inspired by European features on the other.[128] Renovation, restoration, and building activities increased in order to reaffirm the presence and authority of the state in İstanbul.[129] The shores of the Bosphorus started to be occupied by elements of civil architecture; the palaces of high administrative classes and the kiosks and gardens in the Kağıthane district represented the new, European way of living for the limited part of the Ottoman society.[130] One of the prominent examples of public architecture in the capital was a significant number of monumental fountains either attached to the sidewalls of the courtyards or within an architectural complex.[131] The initial urbanistic attempts in the capital took place within the 18th century, during the reign of Ahmed III. On the square that is in front of the first entrance of Topkapı Palace and, the apsidal façade of the Hagia Sophia Mosque, the single monumental fountain of Ahmed III (1729) was located and created a baroque urban space around it.[132] With its organization and decoration, the monumental fountain became the precursor

[127] Filiz Yenişehirlioğlu, "Western Influences on ottoman Architecture in the 18th Century," *Das Osmanische Reichund Europa 1683 bis 1789: Konflikt, Entspannung und Austauschwieu* (1983) 154.

[128] See, Apdullah Kuran, "Eighteenth Century Ottoman Architecture" in *Studies in Eighteenth Century Islamic History* (Carbondale and Edwardsville: Southern Illionis University Press), 1970, 303-327.

[129] Selva Suman, "Questioning an Icon of Change: The Nuruosmaniye Complex and the Writing of Ottoman Architectural History," *METU JFA* (2011): 145.

[130] Yenişehirlioğlu, "Western Influences," 164-165.

[131] Ibid., 175. On the fountains and the notion of "Westernization" in the framework of Ottoman architectural and social history, see Shirine Hamadeh, *The City's Pleasures: Istanbul in the Eighteenth Century*, (Seattle & Londra: University of Washington Press, 2008.

[132] Ali Uzay Peker, "Western Influences on the Ottoman Empire and Occidentalism in the Architecture of Istanbul" *Eighteenth-Century* Life vol. 26.3, (2002) ,147. On the Nuruosmaniye Mosque and the 18th century Ottoman architecture see, Rüstem Ünver, *Ottoman Baroque: The Architectural Refashioning of Eighteenth-Century Istanbul* (Princeton; Oxford: Princeton University Press, 2019), esp. 111-169.

of the later ones erected in Üsküdar (1728), Azapkapı (1732/33), Tophane (1732/33) and Hekimoğlu Ali Pasha (1732/33).[133]

Along with the fountain of Ahmed III, the mosque-complex of Nuruosmaniye (1755) became the summit of the stylistic transformations in the eighteenth century since it was the first royal religious complex that displayed baroque and neo-classical elements. The annex of the business area, adjacent to the Grand Bazaar, the Nuruosmaniye Mosque was better integrated with the commercial fabric of the city than the recent examples in the classical period.[134] The street pattern was a sidewalk created by the arcades on the western front of the walls of the complex, which is regarded as the first project with urban planning in the Ottoman architecture.[135]

> Than this there is hardly in nature a more delicate Object, if beheld from the Sea or adjoining Mountaines; the loftie and beautiful Cypresse Trees so intermixed with the buildings, that it seemeth to present a Citie in a -Wood to the pleased beholders. Whose seven aspiring heads (for on so many hills and no more, they say it is seated) are most of them crowned with magnificent Mosques, all of white Marble, round in forme, and coupled above; being finished on the top with gilded Spires, that reflect the beames they receive with a marvellous splendor; some having two, some foure, some six adjoining Turrets, exceeding high, and exceeding slender... [136]

These remarks made by George Sandys; a European traveler who visited the ancient city of Istanbul records the city's era of splendor as the Ottoman imperial

[133] Ayda Arel, *18. yy'da İstanbul Mimarisinde Batılılaşma Süreci*, (İTÜ MimarlıkFakültesi, 1975) 41; Godfrey Goodwin, *A History of Ottoman Architecture*, (Thames&Hudson, 2003), 373-374; Yenişehirlioğlu, "Western Influences," 175.

[134] Cerasi, Maurice, "The Urban Perspective of Ottoman Monuments from Sinan to Mehmet Tahir-Change and Continuity," in *Aptullah Kuran İçin Yazılar* ed. Ç. Kafesçioğlu and L. Thys-Şenocak (YKY: İstanbul, 1999) 179.

[135] Ibid.

[136] George Sandys, "A Relation of a Journey begunne, Anno Dom. 1610. Written by Master George Sandys, and Here Contracted," in *Purchas His Pilgrimes*, vol. 8 (1905): 111.

capital. The account reveals how the city was perceived as strikingly beautiful by its visitors: a charming landscape consisting of an extraordinary geographical setting, that is, an urban environment blended with buildings and trees in a particularly harmonious order.[137] However, this naturally advantageous and artificially elaborated city had a clear disadvantage, sufficient sources for drinking water and vulnerability from the land.

2.2. Constantinople and the Access to Water

When the late antique orator, Libanius described his native city of Antioch, he took pride in a number of its features from myths, religion, and history to the urban fabric in A.D. 356.[138] One key feature was an abundance of water with a range of aqueducts which made the city "capital of the Nymphs."[139] By doing so, Libanius compared Antioch with two other great cities, Rome and Constantinople.[140] His remarks emphasized the crucial defect of Constantinople, where the strategic advantages of geography and well-protected natural harbors are.[141]

The city of Istanbul has been recorded for experiencing water problems throughout its history. It was poorly provided in this respect by a small stream called Lycus.[142] Since the city has turned into a populated center, there is always an urge to reach water and bring it from the surrounding regions. This is the city where water has been given life by its arches, levees, fountains, baths, and aqueducts. Thus, the

[137] İffet Orbay, "Istanbul Viewed: The Representation of The City in Ottoman Maps of the Sixteenth and Seventeenth Centuries" (PhD diss., Massachusetts Institute of Technology, 2001), 26.

[138] Libanius, *Or*. 11.270; Crow, "Water and Late Antique Constantinople," 116; Glanville Downey, "Libanius' Oration in Praise of Antioch (Oration XI)," *Proceedings of the American Philosophical Society* 103, no. 5 (1959): 681.

[139] Libanius, *Or*. 11.241; Crow, 116; Downey, 678.

[140] Crow, "Water and Late Antique Constantinople," 117.

[141] Mango, *Studies on Constantinople*, 119.

[142] Mango, "The water supply of Constantinople," 9.

architectural structures related to water are the very ancient assets and, among the most impressive ones to be seen in the built environment of Constantinople.

The first water supply line and the aqueducts that they were running over the land from Cebecikoy were attributed to Emperor Hadrian dates back to the Roman times in the city (117-138 AD) (Fig. 16).[143] Dalman, however, asserted a much shorter line coming from the Halkalı, from the west-northwest of Byzantium.[144] Inside the city, the places lay only about 30 m above the sea level, between the First and the Second Hill, were supplied water with Hadrianic aqueduct.[145] The Imperial Palace and the Baths of Achilles were also indicated to be provided by the initial water network of the city.[146] Over the next three centuries, two other major supply lines were built for serving the needs of the city; the Thracian Water Supply System by Constantinus II and the water supply system near Belgrade by Theodosius. The one constructed under the reign of Constantine II and completed by Emperor Valens [147] brought water from the Istranca Mountains, and it is the longest water supply line known from the Roman world (Fig. 17).[148]

This line carried water over 250 km, which was one of the greatest achievements of hydraulic engineering by transporting water by the new over ground and underground rivers.[149] Before the completion of this water supply system, Constantius II recognized the advantage of abundant water supply at the

[143] Çeçen, *Mimar Sinan,* 115.

[144] Dalman, *Der Valens-aquädukt*, 2. However, Crow suggested that the Halkalı waters were used since the beginning of the Ottoman period. Mazulkemer which was also suggested by Dalman as the last remnant of Roman and Byzantine waterworks here, was examined as an entirely Ottoman work by Bardrill and Bayliss. For detailed information on this topic see Crow, *The water Supply of Byzantine Constantinople,* 115.

[145] Ibid., 114.

[146] Ibid., 115.

[147] Mango, "The Water Supply," 12.

[148] Çeçen, *Roma Suyollarının En Uzunu*, 20.

[149] Bono, et. all., "The Water Supply," 1325.

development area between the planned aqueduct and the northern branch of the Mese.[150] As an outcome of the long term plan of the water supply line, the eponymous baths of Constantius II were constructed in the Tenth Region of the city to be fed by the Aqueduct of Valens.[151] Thus, the earliest mentioned cistern of Constantinople was that of Modestus, the prefect of the city (completed 369),[152] was also located at the eleventh region, a close place to the church of the Holy Apostles and the Aqueduct of Valens, by occupying 154m x 90m area.[153] While the aqueduct had not yet been completed, the cistern must have been planned in conjunction with the water structure.[154]

Eventually, the long-awaited water was brought into the city under the reign of Emperor Valens. He completed the last phase of the water network and, the system had not experienced significant expansion, yet, there was a growth of storage facilities within the walled area.[155] Even so, Emperor Valens was praised for supplying water to Constantine's city by the excessive water network. A fourth-century philosopher and orator Themistius addressed him in an oration:

> Blessed, happy Constantine! Dou you sense that for you the emperor (Valens) has turned the beloved from an inanimate to an animate state, and that against expectation he has breathed life into this beautiful and desirable body that was still feeble, to say it with Homer, and that for you the city is truly a city and no longer a mere sketch? You and your son were clever in finding for her and giving to her many and manifold girdles and necklaces and bracelets and torques. And lest bedecked with much gold and precious objects she be more thirsty than those who are dressed in rags, you would have made great expenditure, but this honour was preserved and left to another since God took care that the thank-

[150] Magdalino, "Medieval Constantinople," 68.

[151] Ibid.

[152] Ibid; Crow et. all., *The Water Supply*, 127.

[153] Mango, "The Water Supply," 15.

[154] Ibid.

[155] Ibid.

> offering of the emperor did not appear second to the imperial garb, which the beautiful city had first fixed on him. Now both exchange rivaling gifts with one another and not gold for bronze but things of quite equal worth. And it is difficult to pronounce which of them is more precious. For famous and renowned poets agree with both, one calling the imperial rank godlike and the other declaring water the best thing.[156]

The complex text has a simple message that is in a growing city without water; the embellishment of it with statues and precious objects was not enough.[157] Even though the orator knew the searching of the earlier emperors for water and he praised Constantius II for this activity, he gives credit to Emperor Valens like other ancient sources such as Ammianus Marcellinus and Socrates for supplying the city of Constantinople with fresh water.[158] Jerome's *Chronicle* credits this provision of water by the year 373, which is the date accepted by recent historians.[159] This system survived in the "dark ages" of the medieval period yet, restored in 767 after a process of disruption.[160] Until the late eleventh century, the water supply properly maintained its operation.[161]

The Thracian Water Supply Line could have supplied water to any building below the 59m contour level in the city. At the same time, the Aqueduct of Hadrian transported limited water to provide the cisterns, baths, and residences, including the Great Palace, which was the structures below the 35m contour.[162] For

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[156] Themistius, *Oratio* 11.151a-2b; Crow et. all., *The Water Supply*, 9.

[157] Ibid.

[158] Ibid. In another oration Themistus mention Valens welcoming the Thracian waters to the city, see Themistus, *Oratio* 13.167c-168c.

[159] Noel Lenski, *Failure of Empire: Valens and the Roman Statein the Fourth Century A.D.* (Los Angeles: University of California Press, 2002), 395, 399; 395, 399.

[160] Crow et. all., *The Water Supply*, 1.

[161] Ibid.

[162] Ibid., 124.

some larger cisterns, these two different lines of both aqueducts coincided with and, for the other structures below the respective lines water was conveyed by built conduits and pipelines.[163]

The fourth-century Aqueduct of Valens was standing between the Third and the Fourth hills of the city with its 971-meter-span. It is situated 63.5 meters above the sea level and, from place to place, the line of arches doubled by passing through the valley.[164] The "long-prayed water"[165] which was delivered from the Thracian peninsula by Valens Aqueduct to the heart of the city, supplied the nearby Constantianae Baths with the Anastasianae (in Region 9) and the Carosianae (in Region7) Baths which were built by Valens on behalf of his daughters,[166] then reached as the Forum Tauri and finally supplied the Binbirdirek covered cistern.[167] Themistius addressed *Nymphaeum Maximum* situated near this forum by the prefect of the city Clearhus, by using the word "temple" for referencing the greatness of the fountain in the city.[168] Thus, the water structure was mentioned that it was constructed to receive the new water supply by the Aqueduct of Valens.[169] There were three other *nymphaea* which were attested to be supplied by the Aqueduct of Valens in the *Notitiaurbis*; the one in the Region V is suggested to located in the

[163] Ibid.

[164] Müller-Wienner, Bildlexicon, 273.

[165] Lenski, *Failure of Empire*, 395, 399; Crow et. all., *The Water Supply*, 10.

[166] Ibid., 127. For the list of the major baths also see page, 10.

[167] Ibid., 118,123.

[168] The word "temple" was used by Themistus in a second oration on the supplied water to the city Themistius, *Oratio* 13.167c-168c.

[169] Crow et. all., *The Water Supply*, 127.

forum of Constantine,[170] the second nymphaeum was present in the Region IV, and another was outside the city in the Region XIV.[171]

Before the water channels of the Valens Aqueduct reached the city, the City Prefect Modestus recognized the need for water storage within the city and made provision by order of a building of a cistern between 363 or 369.[172] The exterior walls of the cistern measured 154 m from north to south by 90 m from east to west,[173] so that, the surface area was greater than the largest covered cistern of Constantinople, the sixth-century Basilica Cistern, yet smaller than the open reservoirs of Mokios, Aspar and Aetius.[174]

The third water supply line to the city is suggested to be donated under the reign of Theodosius I by Çeçen and Dalman **(**Fig. 18).[175] By the year 384, all citizens were obliged to contribute money for the construction of the new bridges and aqueducts which provided the capital a great deal of water consumption from Belgrade Forests located in the north of Istanbul.[176] During this century, the city's water storage capacity was expanded; much of it was accumulated by open reservoirs which found a place due to the extension of the new borders. These areas between the Constantinian and Theodosian Walls were used for agricultural

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[170] Bassett, *The Urban Image*, 29, 70. Also, Bauer suggest that a nymphaeum was situated at the south end of the Forum of Constantine in Franz Alto Bauer, *Stadt Platz und Denkmal in der Spätantike (*Mainz: von Zabern, 1996), 171. See also Albrecht Berger, "Regionen und StraBen im fruhen Konstantinopel," *Istanbuler Mitteilungen* 47 (1997):379-80.

[171] Crow et. all., *The Water Supply*, 127.

[172] Ibid., The location of the reservoir is indicated in the Notitia Urbis as it was in the northern section of the city, in the Region XI. However, the Patria situated it near the Church of the Holy Apostles. Indeed, a cistern in the Saraçhane is noted in Pierre Gilles, *The Anntiquities of Constantinople*, trans. J. Ball (London: 1729), 201. https://archive.org/details/antiquitiesofcon00gill/page/n5.

[173] Philipp Forchheimer and Josef Strzygowski, *Die byzantinischen Wasserbehälter von Konstantinopel* (Vienna: Verlag der Mechitharisten -Congregation, 1893), 52.

[174] Crow et. all., *The Water Supply*, 127.

[175] Çeçen, *Roma Su Yolları*, 220; Dalman, *Der Valens-aquädukt,* 6-8.

[176] Charles Texier, *Byzantine Architecture Illustrated by Examples of Edifices Erected in the East During the Earliest Ages of Christianity* (London: Day &Son Lithographers to the Queen and to H.R.H. the Prince of Vales, 1864), 19; Çeçen, *Roma Su Yolları*, 220.

purposes.[177] With proximity to the extension of the Aqueduct of Valens, the great cistern of Aetius was built in 421.[178] Then the cistern of Aspar was located in 459 at a little far away from the previous one.[179] Even though these newly situated cisterns have added capacity of nearly 1.000.000 cubic meters to the water reservoirs in the city, their stored water would have been much less clean than the covered cistern.[180] Therefore, the water from the open reservoirs has been intended for agricultural and industrial purposes and, for the public fountains.[181] Outside the city, in the ancient Hebdomon, the open reservoir of Fildamı was located.[182] The sustaining water supply line is unknown, and the reservoir might have been provided a source from Thrace.[183]

The biggest extant covered cistern, the Basilica Cistern, was constructed by Emperor Justinian under the open courtyard of the Basilica.[184] This reservoir was supplied with the older aqueduct of the city, the Aqueduct of Hadrian.[185] Another grand cistern was built by Phocas, a Byzantine statesman and general in the reign of Heraclius, at the very beginning of the seventh century in 609.[186] It was the cistern of the Forty Martyrs situated on the Mese, and it may have been supplied with the

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[177] Crow et. all., *The Water Supply*, 128; Denis Sullivan, *Siegecraft: Two Tenth-century Instructional Manuals by Heron of Byzantium* (Washington, D.C.: Dumbarton Oaks Research Library and Collection, 2000), 138-41; 265-7, fig. 41.

[178] Marcelinus *Comes*, 75; Mango, "The water supply," 16; Crow et. all., *The Water Supply*, 128.

[179] Mango, "The water supply," 16; Magdalino, "Medieval Constantinople," 82.

[180] Crow et. all., *The Water Supply*, 129.

[181] Ibid.

[182] Forcheimer and Strzygowski, *Die byzantinischen*, 50-51; for previous studies see Tülay Ergil, "A Byzantine Cistern near Istanbul," *Archaeology* 27, no. 1 (1974): 42-47. http://www.jstor.org/stable/41685357. Also see Crow et. all., *The Water Supply*, 132-137.

[183] Crow et. all., *The Water Supply*, 134.

[184] Ibid., 10.

[185] Ibid., 134. Malalas, *Chron*. 18.17; *Chron. Pasc*. 618-19.

[186] Mango, "The water supply," 16.

Aqueduct of Valens as well.[187] There were also some religious structures with their own cisterns such as the Pantocrator Monastery in the vicinity of the Valens Aqueduct.[188] So that, Constantinople was stated as the only ancient city with its size and number of covered and uncovered cisterns that were close to 100 in number.[189]

In the long reign of Justinian, the maintenance process for the aqueducts and cisterns was explained by the written sources. These accounts especially revealed the specific features of the system, such as the constructed cistern during the rebuilding process after the disastrous fire following the Nika riot in 532.[190] From the sixth century onwards the droughts remained a problem and, the management of the resources was recorded in the written sources.[191] In one of them by Procopius, Emperor Justinian was accused of neglecting the broken aqueduct of the city.[192]

Less is reported about the supply system in the subsequent periods of Constantinople. Justin II was mentioned with the repairment of "the great aqueduct of Valens" and served the capital "the abundant water" thus, the renovation of the aqueducts during the reign of Maurice and, the remitted taxes for were also indicated by the sources.[193] At the beginning of the sixth century, the Long Walls of the Thrace, the Anastasian Walls were constructed for both the city's defense and the protection of the large springs.[194] However, the first great attack of Avars from the Thracian hinterland cut the connection of the line with the Aqueduct of Valens

[187] Ibid.

[188] Crow et. all., *The Water Supply*, 137.

[189] Mango, "The water supply," 15.

[190] The location of the cistern is not known. *Chron. Pasc*. 629, see Appendix I. Thus, the construction of a new cistern is mentioned in Procop., *Buildings* 1.11.10-15; for the process in Basilica cistern see also Malalas, *Chron*., 18.17; *Chron. Paschale* 618-19.

[191] Malalas, *Chron*., 18. 138-139.

[192] Procop. Secret History 26.23.

[193] Theophylact Simmocatta, History 8.13.17, See also, Michael F. Hendy, *Studies in the Byzantine monetary economy, c. 300-1450* (New York: Cambridge University Press, 1985), 200-201; Magdalino, *Medieval Constantinople*, 54.

[194] Crow et. all., *The Water Supply*, 19.

which was not to be repaired until the reign of Constantine V in the 8th century.[195] For the years 765-766, Theophanes reported that the cisterns and baths had been out of commission due to the interruption of the water supply line and, indicated that the city was supplied solely by the Aqueduct of Hadrian more than a century (between 626 and 765/6).[196] To an original account from the 10th century, the supply systems were still operating by the three intra-mural sections. Crow explained these three regions were provided by the so-called Hadrianic Line, the upper line over the Valens Aqueduct and an upper branch to the Mocius Reservoir.[197]

During the middle Byzantine period, the excessive archaeological evidence indicates the rebuilding and the maintenance of the water distribution systems.[198] From the mid-tenth century on, the Hadrianic line has taken on particular importance after the Blachernae Palace turned into the new imperial residence. Emperor Andronicus (1183-1185) repaired the whole water supply line from the Roman or Byzantine conduits of Belgrade to the Baths of Achilles.[199] Until the end of the twentieth century, the abandonment of the water line under Manuel I(1143-1180), the renewing activities were continuing for the Thracian water conduits as well as the Aqueduct of Valens during the reign of Basil II (960-1025), and the subsequent reign of Romanos III (1028-1034).[200] In the mid-twelfth century, the capital was still well-provided with water by the long-distance subterranean channels according to

[195] Ibid.

[196] Theophanes, *Chron*. AM 6258.

[197] Crow. et. all, *The Water Supply*, 20. Also see the recording of Harun Yahya from the 10th century in J.P.A. van der Vin, *Travellers to Greece and Constantinople: Ancient Monuments and Old Traditions in Medieval Travellers' tales*, vol 49 (Leiden: NederlandsHistorisch-Archaeologisch Instituutte Istanbul, 1980) 287.

[198] See, Crow. et. all, *The Water Supply*, 21-22.

[199] *Nicetas Choniates Historia*, ed. Van Dieten (Berlin: De Gruyter, 1975), 329; see Magdalino, "Medieval Constantinople," 76; Andreossy, *Constantinople*, 408, 411.

[200] Skylitzes, *Hist*. 389; Cedrenus 2.47; c. 1020 and 2.504; c. 1034.

the description by Odo of Deuil.[201] Nevertheless, the drought after 1167 and the deficient maintenance of the water networks caused that the supply system was gradually fallen into disrepair at the end of the Latin occupation.[202] Shortly before the Ottoman conquest, many of the cisterns were ruined and enclosed and, the Byzantine capital was provided a limited amount of water with the primacy of agricultural use.[203]

Following the conquest in 1453, during the re-glorification process of Mehmed II, the reconstruction of new imperial monuments and the rehabilitation of the ancient ones were maintained.[204] Tursun Bey reported the order of the sultan for the restoration of the water supply lines which brought the water from a distance of six or seven days travel.[205] The sultan restored the water supply line so, the first imperial palace of Mehmed II and new commercial and residential area around it has facilitated with this re-habited water supply system.[206] The construction of the palatial and public baths was also possible through this restoration since the city has always been dependent on bringing water outside the peninsula.[207] Apart from that, the famous Kırkçeşme Fountains was situated in the vicinity of the Valens Aqueduct.[208] One of the leading sources on the reconstruction of the Ottoman capital in Istanbul, *Tarih-i Ebü'l-Feth* of Tursun Bey transferred the discovery of the late antique water supply lines of the city and mentioned the construction of this fountain

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[201] Van der Vin, *Travellers to Greece and Constantinople*, 519. Also see, Odo of Deuil, *De Profectione Ludovici VII in Orientem*, ed. V. Gingerick Berry (New York: 1980).

[202] Dalman, *Der Valens-aquädukt*, 10.

[203] Van der Vin, *Travellers to Greece and Constantinople*, 668; Jonathan Bardill, *Brickstamps of Constantinople*, vol. 1, (Oxford: Oxford University Press, 2004), 129.

[204] Kafescioğlu, *Constantinopolis/Istanbul*, 4.

[205] Dalman, *Der Valens-aquädukt*, 60-61; Kazım Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları,* (İstanbul: İSKİ, 2000), 141-142.

[206] Kafesçioğlu, *Constantinopolis/Istanbul*, 67.

[207] Ibid., 106.

[208] Halil İnalcık, "Fatih Sultan Mehmet Tarafından İstanbul'un Yeniden İnşaası," *On Dokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi* 3(1988): 219. Tulum, *Tursun Bey*, 70.

at a convenient place near the arches.[209] There were also the restored dams, aqueducts, fountains, pools which were neglected during the last years of the Byzantine Constantinople.

In the course of his reign, Mehmed II constructed new water lines, yet none of them was as long as the former Roman water supply systems. The first water supply line of the Ottomans in the city of Istanbul, the Fatih Water Supply System originated from Halkalı Region as well as the constructed waterways during the subsequent periods.[210] Even though an original map or drawing is absent for directing the line, it is known that the water passed over the fourth-century aqueduct, Mazulkemer due to the seventeenth-century inscription from a restoration process.[211] It is predicted that the water supplied the galleries of Fatih Mosque and the Old or the New Palace during the reign of Mehmed II.[212] The supply line was later called as "Beylik" (imperial) branch of the Halkalı Channels. The oldest map showing the distribution line was created by the architect Davud (1584) and, indicates the reaching waters to the distribution chamber (*maksem*) at a corner of the Old Palace by passing over the Aqueduct of Valens.[213] Then, it was distributed to the various locations, including the "imperial palace," the Topkapı Palace.[214] Another water supply line of Mehmed II is the Turunçlu Water Supply System which is a relatively

[209] Ibid., 69-70; Nezih Aysel, "İstanbul'un Tarihi Su Sistemleri: Kırkçeşme Tesisleri," (paper presented at Dünya Su Forumu Hazırlık Süreci Bölgesel Toplantısı, İzmir: June 2008), 2.

[210] Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları*, 142.

[211] This restoration and extention activities were from the reign of Mahmut I for the The Beylik Water Supply System. See, Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları*, 142.

[212] Ibid., 143.

[213] See, Necipoğlu, "Virtual Archaeology," 315. The two copies of the map are in Fatih Millet Library, no.930; and Topkapı Palace Museum Archive (henceforth TSMA), E. 12481. See, Çeçen, *Halkalı Suları*, 37-39, maps 1-2. Evliya Çelebi mentioned "the water of life" supplied to the Old Palace was soft and easy to drink and, it flowed from a fountain in front of the eastern gate of the palace. See, Yüksel Yoldaş Demircanlı, *İstanbul Mimarisi Için Kaynak Olarak Evliya Çelebi Seyahatnamesi* (İstanbul: Vakıflar Genel Müdürlüğü, 1989), 466-67.

[214] Even though the part of the map showing the channel leading to the Topkapı Palace, this missing section was later indicated in the maps of the Halkalı Channels of 1607 and 1748. See, Necipoğlu, "Virtual Archaeology," 315.

short line starting from Ayvalıdere, near Ali Paşa Aqueduct, serving farmlands near Taşlıtarla then reached the Gate of Mevlanakapı, PortaRhegion (Fig. 19).[215]

The subsequent sultans added new water supply lines from the same region, Halkalı, which reaches the west and the north-west of the city walls to an area around 15km. Even though the region is affluent through the widespread water sources, there were the sixteen separate branches in number, these springs are reported with their low discharge.[216] The originated supplies was crossing the Land Walls at an altitude of 55-65 m so that The Halkalı Channels (Ottoman) along with the Thrace Channels (Byzantine) is considered as the higher channels of the city and, they were transmitted through the Valens Aqueduct between the Fourth and the Third Hills in order to reach the city center.[217] Throughout the Ottoman period, the Valens Aqueduct along with the Halkalı waterways had been restored for this reason alone.[218]

The Bayezıt Water Supply Line was also considered one of the Halkalı Channels and, constructed by Sultan Bayezıt II (1447-1512).[219] From the southern part of the Edirnekapı Gate, the water line entered the city; after supplying water to the Fatih Mosque-Complex, crossed over the Valens Aqueduct.[220] From this point on the line distributed to the many different routes; one of them reached to the Beyazıt Complex and continued down the Mese by feeding up mosques, madrasahs, *hamams* and the residences of pashas.[221] It is also recorded that one of the Grand Viziers of Bayezıt II, Koca Mustafa Pasha, constructed a short water supply line

[215] Ibid.

[216] Crow et. all., *The Water Supply*, 87.

[217] Ibid., 87.

[218] Ibid.

[219] Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları*, 144-145.

[220] Ibid., 145.

[221] Ibid., 150.

originated from İbrahimpasa between Topkapı and Edirnekapı and, supplied water to the six locations in the city apart from the Mosque of Kocamustafapasa.[222]

One of the oldest written sources regarding the hydraulic works of Topkapı Palace is reported from the period of Bayezid II.[223] It was revealed the original layout of the imperial residence at that period and produced a list of water structures in the palace. Immediately after the big earthquake of 1509, the sultan did repairments on the water networks of Old Palace that received water through the Aqueduct of Valens.[224] The collapsed section of the Aqueduct of Valens close to its eastern side was among the results of the earthquake as well. The following strophe indicates Bayezid's order for the restoration of the channels of the Old Palace; "*…çatma evler tamām oldı; hüdāvendigār sene-I mezkūrun zi'lḳaʿde ayının dördünde çehārşenbe gün içine girdi ve eski sarāya meremmet idüb ṣuyını getürmek buyurdı*."[225] Those activities extended along to the water channels of the New Palace and, the workers of the "imperial water channel" were rewarded by royal gifts of Bayezid and received bonus earnings.[226]

The most extended water supply system of the Halkalı Channels was constructed between 1550-1557, during the reign of Sultan Süleyman to supply water the Mosque-complex of Süleymaniye.[227] In origin, the Süleymaniye Water Supply which would have flowed across the Valens Aqueduct is not considered to

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[222] Ibid., 152.

[223] Necipoğlu has discussed the source on the hydraulic landscape of the Imperial Palace. See, "Virtual Archaeology,' 315.

[224] Ibid., 320.

[225] Rūḥī Edrenevī, *Tārīḫ-I Āl-iʿOṣmān*: Berlin, Staatsbibliothek, Ms. Or. Quart 821, fols. 191r–192v, cited by Necipoğlu, "Virtual Archaeology," 345, n. 8.

[226] Necipoğlu, "Virtual Archaeology," 320. See also, Rıfkı Melül Meriç, "Beyazıd Câmii Mimarı," *AÜ İlâhiyat Fakültesi Türkve İslâm Sanatları Yıllık Araştırmalar Dergisi* II (1958): 70–72. Later in the reign of Süleyman I, the janissaries working on the waterways were rewarded by degree and wages, see *6 Numaralı Mühimme Defteri*, s. 127, edict no: 267.

[227] Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları*, 153. Ahmet RefikAltınay, *Onuncu Asrı Hicride İstanbul Hayatı,* ed. Abdullah Uysal (Ankara: Kültür ve Turizm Bakanlığı, 1987), 23.

distribute water to the city with a vast network. Nevertheless, the residential areas, *hamams,* and fountains were supplied later after the subsequent attachments.[228]

Belî var bir dahı ey Şâh-ı a'zam
Velî müşkildür ol emr-i mu'azzam
Akıtmak şehre bir Âb-ı revân-ı
Halâyık bula tâzezinde-gânı

However, these restorations and newly constructed water supply systems were not sufficient for Istanbul, which, once again, had become the capital of a vast Empire. Eyyûbî's recordings confirm the vital requirement of Istanbul as a continuous water source for the liveliness of the community. The construction of a new supply line along with the restoration of the aqueducts once again became life-sustaining. So that the Hollander diplomat, Ogier Ghislain de Busbecq represented the wishes of the sultan of the period, Süleyman for re-operating the aqueducts of the city.[229] The Sultan said three aims that had set his heart on; "to see the building of his mosque finished, restoring the ancient aqueducts to give Constantinople an abundant supply of water, and to take Vienna."[230]

Sultan Süleyman achieved two of his projects; the Süleymaniye Mosque Complex and restoration of the ancient aqueducts along with the construction of a new water supply line which was a substantial solution of the everlasting water problem of the capital. In 1554, the Sultan ordered the architect Sinan to provide a new water supply system from the north of the city (Fig. 20).[231] With the all components; five large and many smaller aqueducts, water intake systems,

[228] Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları* 157. Crow et. all., *The Water Supply*, 87.

[229] Charles Thornton Forster and F.H. Blackburne Daniell, *The Life and Letters of Ogier Ghiselin De Busbecq Vol.1*, (London: C. Kegan Paul & Co, 1881), 410.

[230] Ibid. Eyyûbî, *Menakıb-ı Sultan Süleyman,* 159. See also, Demircanlı, *İstanbul Mimarisi,* 79-80.

[231] Çeçen, *Mimar Sinan*, 18.

distribution systems, settling basins, city networks, water towers and fountains, this 55 km long water supply line, called the Kırkçeşme Water Supply System, was built in nine years.[232] The system, in fact, substantially solved the water problem of Istanbul for that era. The water was considered that it was transported from the Belgrade Forests to the city and, has followed a route from a lower level than the Halkalı Channels.[233] These lower channels were also former sources for the Byzantine lower supply line which passing through the Aqueduct of Hadrian and reaching the Basilica Cistern.[234]

In the city, the water network splits into two branches at the main distribution chamber in Eğrikapı.[235] One branch led to Yenibahçe and Yedikule districts, while the longer one provided various quarters and structures starting from Ayvansaray district to the Ayasofya distribution chamber.[236] In between this line, water was delivered through the west of the Chora Church, reached the quarters of Kemankeş and Tercümanyunus then, passed from the north of the Sultan Selim Mosque and reached the distribution chamber of Tezgahçılar near the Gazanferağa Medresesi.[237] From this point on, one branch continued through the Vefa district and ended by the lower levels of Süleymaniye Mosque.[238] Another branch supplied the Şehzade Mosque Complex and reached the distribution chamber on the northern side of the Laleli Mosque.[239] In the final phase of transmission, the water followed a parallel path to the shores of Marmara and reached the Hagia Sophia distribution

[232] Ibid. Ghukas İnciciyan, *XVIII. Asırda İstanbul*, trans. Hrand D. Andreasyan (İstanbul: İstanbul Matbaası,1956), 25-26.

[233] Crow et. all., *Water Supply*, 112-113.

[234] Ibid., 114.

[235] Kömürciyan, *İstanbul Tarihi,* 20.

[236] Çeçen, *Mimar Sinan*, 151.

[237] Ibid.

[238] Ibid.

[239] Çeçen, "*Sinan'ın Yaptığı Su Tesisleri*," 449.

chamber by passing through Sultanahmet.[240] The Kırkçeşme Water Channels supplied the 570 different places such as fountains almost a hundred in number,[241] *hamams,* and *sebils* via the earthenware water pipes branching from the galleries.[242]

On the way of the waterways of Kırkçeşme or near their water sources, the residents of the villages were put in charge of the supervision of the springs for keeping it clean.[243] The villages up to ten were recorded for being exempt from the taxes by command of Sultan Süleyman.[244] Nevertheless, the praised waters network out of the numerous aqueducts and bridges were destroyed right after its completion during the flood in 1564.[245] On December 31st, 1564, the imperial provisions were attained to the Edirne *kadısı* and the governor of Egypt in order to assign carpenters and workers one hundred and fifty in number.[246]

The chief architect, Sinan, had some efforts for regulating the dense urban texture and maintaining the waterways. Some edicts recorded his intervention in bringing a new notion to the usage and management of public structures.[247] The periodical demolishment of the structures which were erected adjacent to the Land Walls, over the waterways and the ones violating the limits of streets following his

[240] Çeçen, *Mimar Sinan,* 151.

[241] Kömürciyan, *İstanbul Tarihi,* 20.

[242] Çeçen, *Mimar Sinan,* 20.

[243] Kömürciyan, *İstanbul Tarihi,* 20.

[244] İnciciyan, *XVIII Asırda İstanbul*, 197. The registration of the Süleyman's provision on the exempted peasants in Havass-ı Refia 90, #105a-1 (1090-1091/1679-1680).

[245] Eyyubi, *Menakıb,* 163-173.

[246] MühimmeDefteri 6, #309; MühimmeDefteri 6, #555. Also see, Said Öztürk, *Osmanlı Arşiv Belgelerinde İstanbul'un Tarihi Su Yolları, Muhafaza ve Bakımı*, edited by Said Öztürk, (İstanbul: İstanbul Büyükşehir Belediyesi Yayınları, 2006),1: 72-74.

[247] Necipoğlu, *Sinan Çağı*. 149. On the general information about the maintenance and repairments of the water networks see, Said Öztürk, "Su Yollarının ve Bentlerinin Korunması" in *Osmanlı Arşiv Belgelerinde İstanbul'un Tarihi Su Yolları, MuhafazaveBakımı*1 ed. Said Öztürk (İstanbul: İstanbul Büyükşehir Belediyesi Yayınları, 2006), 43-49.

interventions.[248] In 1575, with the instruction of Sinan, the architect Davud, the *suyolu nâzırı* (inspector of the waterways) and the İstanbul *Kadısı* collaborated for the destruction of the built houses and sheds attached to the surface of the Aqueduct of Valens and in between its arches.[249] Similarly, several documents confirm the close cooperation of the chief architect with the *suyolu nâzırı* on the maintenance of the waterways and aqueducts; they notified the removing of the illegal structures and gardens over the supply lines and, keeping a considerable space on their both sides.[250]

The sixteenth-century Istanbul has been supplied with three other small-sized water lines originated from Halkalı region. The daughter of Sultan Süleyman donated the Mihrimah Water Supply Line in order to supply her mosque-complex near Edirnekapı,[251] and the *shayk al-Islam* Ebu Suud Efendi statesman constructed the *Ebusuud* Water Distribution Line providing water to the fountain of *Ebusuud* along with ten other locations in the city.[252] At the late sixteenth century, between 1595-1603, a parallel line to the *Ebussud* Water Supply Line was donated by Cerrah Mehmed Pasha as well.[253]

It seems that the sultanic mosques were constructed with their own water supply lines. Thus, one more branch was constructed from the Halkalı Channels for the distribution of the seventeenth-century monumental mosque of Sultanahmet.[254]

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[248] Necipoğlu, *Sinan Çağı*, 149. See, Ahmet Refik Altınay, *On Altıncı Asırda İstanbul Hayatı (1553-1591),* (İstanbul: İstanbul Devlet Basımevi, 1935), 24.

[249] Ibid.

[250] Ibid. For the provision see*, 7 numaralı mühimme defteri* (Vol. 1) 53, edict no:146; 14 numaralı mühimme defteri (Vol 1), 564, edict no:796. A collection of provisions regarding the waterways of Istanbul are gathered in Said Öztürk, *Osmanlı Arşiv Belgelerinde İstanbul'un Tarihi Su Yolları, Muhafazave Bakımı*1 ed. Said Öztürk (İstanbul: İstanbul Büyükşehir Belediyesi Yayınları, 2006), 54-462.

[251] Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları*, 164.

[252] Ibid., 165.

[253] Ibid., 172.

[254] Ibid., 173.

Later in the eighteenth century, this line was connected with the Water Network of Nuruosmaniye.[255] In the second part of the 17th century, the Köprülü Water Supply Line joined the wide range of water networks of the capital. As indicated in the Map of Köprülü Water Supply System, the water entered the city by passing over the bridge near Edirnekapı, after reaching the Valens Aqueduct, it was distributed to the Beyazıt Mosque Complex. Then the channels reached the Tombs of Kara Mustafa Paşa and Gazi Sinan Paşa, Mosque of Ali Paşa, Elçi Han, afterward, it separated into two branches; the one reached to Köprülü Madrasah and Valide Baths, the second branch supplied water to the bazaars and finally arrived the New Fountain.[256]

Following the seventeenth century, many efforts were recorded for the restoration, maintenance, and regulation of the water distribution lines of *intra muros* Istanbul. The largest survey regarding the hydraulic structures was made at the end of this century. Around September 1693 the grand vizier's deputy for Istanbul, Kandilci Hüseyin Paşa implemented the water survey after a series of dreadful fires broke out in the summer of 1693.[257] The fire destroyed many of the densely populated neighborhoods and the trading centers. From At Bazarı Square in Fatih, the Zeyrek district, the Fatih Mosque, the quarters of Avrat Bazarı, Aksaray, Kırkçeşme and Vefa were affected.[258] In a couple of days after the previous one had broken out, the second major fire inflamed the city walls and, marching through the Süleymaniye Mosque, it then reached the western rear of the Valens Aqueduct which had the three damaged arches with the adjacent houses.[259] In the larger area,

[255] Ibid., 173, 178.

[256] Çeçen, *İstanbul'un Vakıf Sularından Halkalı Suları*, 167-169.

[257] Silahdar Mehmet Ağa, *Silahtar Tarihi*, vol. 2, ed. Refik A. (İstanbul: Devlet Matbaası, 1928), 701. Mehmed Raşid Efendi, *Tarih-I Raşid*, vol. 2, (İstanbul: Matba-iAmire, 1865-1866), 215.

[258] Silahdar Mehmed Ağa gave the numbers of the destroyed structures in large quantities. See, *Silahdar*, 733.

[259] Defterdar Sarı Mehmed Paşa, *Zübde-I Vekayiat, Tahlilve Metin*, trans. A. Özcan, (Ankara: Türk Tarih Kurumu Basınevi, 1995), 464.

the hydraulic infrastructure along the city was damaged, and the proper water submission to the capital was disrupted after the catastrophe.[260]

The conspicuous investigation on the water submission lines and hydraulic structures revealed more about a permanent problem of the intra-mural area that was the illegal use of water and the interferences in the distribution network.[261] Several cases were devolved to the Sublime Porte, they complained about the broken pipelines of a distribution line or stealing water from a public endowment and, transferring into their homes.[262] In fact, the portrait of access to water by various social classes in the Ottoman capital had changed towards the mid- to late-seventeenth century. The previously delivered water, in the fifteenth and sixteenth centuries, was in service of the public by the supply points within the city and through the vicinities of the name-sake mosque complexes of the waterways. By the late seventeenth century, under private ownership, the waterworks called *katmas*, the small-scale underground channels as the extension of the water lines were initialized.[263] A small group of elites controlled these constructions and acquired private access rights over the water sources.

The survey of 1693 documented the total number of *katmas* connected to the main lines of the Süleymaniye Water Supply Line as a total of 237.[264] However, these additional small-scale water supply lines resulted in a gradual increase of the discharged water by the main branches of the sultanic and pious foundations.[265]

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[260] Deniz Karakaş, "Water resources management and development in Ottoman Istanbul: the 1693 water survey and its aftermath," in *İstanbul and Water*, ed. Paul Magdalino and Nina Ergin (Leuven: Peeters, 2015), 182.

[261] Karakaş supplies a detailed account on the inspections of the illegal use of water lines. See, "Water Resources," 182-202.

[262] One of the cases of end of the 17th century is about the right to receive water from somebody's pipelines, see *Atik Şikâyet Defterleri, no. 25*, p. 90, edict no: 35, Prime Ministry's Ottoman Archives, Istanbul (Başbakanlık Osmanlı Arşivi, 1108/1697),

[263] Karakaş, "Water Resources," 186.

[264] Karakaş achieved this information based on the provision in Havass-ı Refi'a #107/102/4 and #103-105/1 (1105/1693). See, Karakaş, "Water Resources,"191.

[265] Ibid., 194.

While the total volume of water entering the capital in 1577, was 1,119 *masura* (1,916,000 gallons per day), the late-seventeenth century accounts indicate a 123-percent increase in the conveyed water.[266] The increasing demand for the water ownership combined with the commercial interest of the pious institutions and, resulted in the privatization of the waterways. Right after the 1693 survey, a couple of pious foundations started to offer long-term leasing for their *katmas* while these institutions were lacking sufficient funds for maintaining the water supply works.[267] Therefore, the maintenance and restoration of them were transferred to the leaseholders by an edict from the end of the eighteenth century. Additionally, it should be noted that selling the *katmas* was also possible based on individuals; the rights over the private channels along with the resident could be assigned to somebody.[268] So, the evolution of the commercial water market came forward by the survey of 1693 and, maintained afterward end of the seventeenth century.

What is remarkable about the subsequent century is the restoration and the development of the "Imperial Branch" of the Halkalı Channels, which was a fifteenth-century construction by Mehmed II.[269] The renovated water network of *Saray-ı Âmire* (imperial palace), represented in the 1748 map of Halkalı Channels records that the water distributed from a water tower in the vicinity of Hagia Sophia to a second tower on the left of the Middle Gate. Then it reaches the chambers of

[266] Also see Karakaş's indications on the records of the supplied water during the seventeenth and eighteenth centuries. In, "Water Resources," 194.

[267] A case of transfering the rights over the katmas was recorded in Havass-ı Refi'a # 111/1/1 (1108/1696); Hatt-I Hümayun, No: 1/86/1; See also, Gülfettin Çelik "Su Tesislerinin Bakımı, Korunması ve Tamiri," *in Osmanlı Arşiv Belgelerinde İstanbul'un Tarihi Su Yolları, Muhafaza ve Bakımı,* ed. by S. Öztürk, (İstanbul: İstanbul Büyükşehir Belediyesi Yayınları, 2006) 1: 17. The maintenance of the networks of the Imperial Palace and the Old Palace were paid by the imperial treasury, the sultanic and pious waterways were responsible by the pious foundations, see, Mai-leziz, No: 293/44/2.

[268] Karakaş included such a selling agreement recorded in the Havass-ı Refia #125/108/4 (1709), see Karakaş, "Water Resources," 200.

[269] Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları,* 175.

distribution at the second court and distributed various points.[270] Based on the description of the Aqueduct of Valens in the map, the water bridge had been in the service of the city until the last years of the empire. This document did not illustrate the entire supply system of the palace. Namely, after the Süleymanic rebuilding campaign, the reach of his substantial water networks of Kırkçeşme to the imperial residence was not recorded here.[271] Nevertheless, one can learn from the map that the indicated water channels from Halkalı supplied the palace with five *lüles* (a lüle is a measure of the volumetric flow of 36lt/min) yet, Sinan's Kırkçeşme Water distribution system was provided by six *lüles* of water to palace.[272]

For the nineteenth century, the water submission of the city has undertaken by the newly modern municipality of 1854. The pious institutions were divested of the supervision over the water supply lines. Since then, some regulations were in operated together with the municipal construction activities although the hydraulic works of the capital were transferred to the charitable institutions one more time, at the end of the century.[273] This was another shift for the construction of the main lines of water provision; the state-sponsored or the charitably-constructed waterways were assigned to private entrepreneurs. The *Dersaadet Anonim Su* Company was renowned as one of the privileged firms for the construction of the waterways and the distribution over the North of the Golden Horn, the shores of Rumeli and inside the walls.[274]

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[270] Necipoğlu, "Virtual Archaeology," 315; Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları*, 175. The map of Halkalı Channels at the Topkapı Palace Museum Library (TSMK, H. 1815) and published in Çeçen*, İstabul'un Vakıf Sularından Halkalı Suları*, 39-46.

[271] For the water network of Topkapı Palace before the Kırkçeşme waterways in the reign of Sultan Süleyman, see, Bilge Aygen, "Fatih Zamanında Topkapı Sarayı Suyu," *Türk Sanatı Tarihi Araştırma ve İncelemeleri* 2 (1969): 215-222.

[272] Çeçen, *Mimar Sinan ve Kırkçeşme Tesisleri*, 165-169.

[273] İlber Ortaylı, *Tanzimat Devrinde Osmanlı Mahalli İdareleri (1840-1880)*, (Ankara: Türk Tarih Kurumu, 2000),.158. also see, Osman Nuri Ergin, *Türk İmar Tarihinde Vakıflar, Belediyeler, Patrikhaneler*, (İstanbul: Türkiye Basımevi, 1944), 54.

[274] Burhan Oğuz, *Bizans'tanGünümüze İstanbul Suları*, (İstanbul: Simurg, 1998), 172-173.

Beside all these, in Istanbul *intramuros*, from the end fourth century which is close to the foundation of the Eastern Roman capital on, the Aqueduct of Valens has played a crucial role for supplying the fresh water to the city. As it is understood from the short history of access to water, its critical position made the Byzantine bridge sustained a substantial function for resurrecting the life within the imperial city and captivate the imperial focus as an infrastructural element without dependence on the periods.

2. 3. The Aqueduct of Valens

The Aqueduct of Valens is hosted on this geography since very early Byzantine times; it remains as the most striking surviving element of a vast and complex system of water network of Constantinople (Fig. 21).[275] The elongated water bridge is usually attributed to Emperor Valens; it supplied water to the city from sources in Thrace.[276] Even though the attribution of some sources associated the origin of the aqueduct with Emperor Hadrian, Malalas mentioned two different renovated aqueducts in the walled circuit of the city named one of them as the Aqueduct of Hadrian which was said to supply water Basilica cistern and the other one is "the aqueduct of the city."[277] In addition to his account, Chronicon Paschale refers to the Aqueduct of Valens, the Thracian aqueduct as the city's aqueduct by stating the pre-eminence of the supply system.[278] This term was used in another source, the *Secret History*, while Procopius reports Emperor Justinian's indifference to the break in the city's aqueduct.[279] Among the contemporary sources, James Crow states that the

[275] Bono, et. all., "The Water Supply," 1325.

[276] Ibid.; Dalman, *Der Valens-aquadukt,* 1; Mango, "The water supply of Constantinople", 12.

[277] Malalas 18.17; Chron. Pasch, 618-19; Cedrenus, History 1.685; Also Crow clearly states the difference between these two aqueducts in Crow, et. all., "The Water Supply," 13.

[278] Malalas, Chron., 18.129; Crow et. all., "The Water Supply," 18; Crow, "Water and Late Antique Constantinople," 127.

[279] Secret History 26.23; see Appendix I.

topographical features created major differences between these two water supply lines and, indicates the different route of the Aqueduct of Hadrian along with the supply line of the Aqueduct of Valens.[280] While the water was distributed to the higher grounds by the Aqueduct of Valens, the Hadrianic water line supplied the lower area of Byzantium and finally reached the palatial area on the cape of the peninsula.[281]

The water bridge of Valens (371) remains as part of the one of the greatest achievements of hydraulic engineering, the most extensive water supply line known from the ancient world which is the Thracian Water Supply System nearly three times longer than Rome's longest aqueduct, the Aqua Marcia.[282] By extending between the summits of the Third and the Fourth hills, its channel carried water at an elevation about 56-57 meters above the sea level and distributed to the higher grounds in the city and supplied the numbers of cisterns in the urban center and along the supply line which were frequently in parallel to the Mese (Fig. 22).[283] The water bridge is 971 meters long and partially double arched; at its lower west end the width is 3.40 meters which is broadening over the double arcade of Pier 25 to 5.65.[284] Its maximum height reaches 28-29 meters and the total height from the sea level is 63,5 meters.[285] An obvious parallelism of the water bridge with one of the streets in the old part of the Byzantium indicates its precise relationship with the street network of the city. The integration of the long bridge in the intra-mural area was further needed passages for the streets, the original arches of 26, 27 and 52 were

[280] Crow, et. all., "The Water Supply," 114.

[281] Ibid.

[282] Bono, et. all., "The Water Supply," 1325; Richard Bayliss, "Archaeological Survey and Visualization: The View from Byzantium" in *Theory and Practice in Late Antique Archaeology* ed. Lavan, L. and Bowden, W., (Brill: Boston, 2003), 291.

[283] Kerim Altuğ, "Tarihi Yarımada'da Bizans Dönemi Sarnıçları Envanteri Işığında Topografik Gözlemler," İstanbul Araştırmaları Yıllığı/Annual of İstanbul Studies 3 (2004): 28-29. Kuban, *Istanbul an Urban History*, 93. Crow et. all., *The Water Supply*, 118.

[284] Ibid.

[285] Ibid.

intentionally wider than the others.[286] Then, its erection on the urban topography of the Byzantine city transformed the area between the Aqueduct and the northern section of the Mese into a prominent region by the advantage of the accessible provision of water.[287]

The Valens Aqueduct was not solely a bridge in the capital, but part of a wide network which was constructed in thirty years and described as "a subterranean and aerial river" by Saint Gregory of Nazianzus.[288] However, the very early mentions of the structure described it as public baths constructed out of the *spolia* from the walls of the destroyed city, Chalcedon.[289] An oracle was found on one of these stones, and it was predicted some barbarous irruptions to the city when the city is supplied with an abundance of water.[290]

> When nymphs their mystic dance with wat'ry feet
> Shall tread through proud Byzantium's stately street;
> When rage the city wall shall overthrow,
> Whose stones to fence a bathing-place shall go:
> Then savage lands shall send forth myriad swarms,
> Adorned with golden locks aud burnished arms,
> That having Ister's silver streams o'erpast,
> Shall Scythian fields and Moesia's meadows waste.
> But when with conquest flushed they enter Thrace,
> Fate shall assign them there a burial-place.[291]

[286] Berger, "Streets and Public Spaces," 168.

[287] Paul Magdalino, ""Aristocratic Oikoi in the Tenth and Eleventh Regions of Constantinople," in *Byzantine Constantinople: Monuments, Topography and Everyday Life*, ed. Nevra Necipoğlu, (Leiden, 2001), 68.

[288] Mango, "The Water Supply," 14.

[289] Ammianus Marcellinus relates that Valens built a bath out of the stones of the walls of Chalcedon in *Ammianus Marcellinus* translated by J. Rolfe (1935), 3: 379-381. See also, "Socrates Scholasticus," In *Columbia Electronic Encyclopedia, 6Th Edition* (March 2017), 186.

[290] Ibid., 186; Cedrenus, I. 543 (p. 310, B).

[291] "Socrates Scholasticus," 186; *Ammianus Marcellinus* translated by J. Rolfe (1935), 3: 379-381.

After the construction of the aqueduct and the city was supplied with water, the prefect of the city, Clearchus built a public bath which was celebrated with a festival with great rejoicings on the site of the Forum of Theodosius.[292] It was considered as the accomplishment of the words of the oracle when the prophecy completed by the disconnection of the Aqueduct with the rest of the line during the attack of Avars to Constantinople in 626.[293] For a century and a half, the entire system remained inoperative since the structure was repaired in 767 when a drought caused the cisterns to run dry,[294] and the water entirely disappeared from the capital.[295] A massive decrease in the volume of available water in the capital contributed to the disappearance of the Nymphaeum Maximum and public baths; also, large open cisterns are believed to have remained empty.[296] The situation caused Constantine V to prompt for restoring not only the aqueduct but also the whole network up to the Bulgarian border.[297] Over 5,000 laborers and 200 brick-makers worked during the reconstruction and, the reservoirs had been in constant use until then.[298] Even though the system continued to operate in the medieval period, the supply line was broken several times by earthquakes, and military invasions and,[299] the Aqueduct experienced similar processes.[300] After all, the medieval Constantinople had been served a certain amount of water.[301] In 1204, the

[292] Ibid.

[293] Ibid.; Mango, "The Water Supply," 17.

[294] Magdalino, "Medieval Constantinople," 19.

[295] Theophanes, the Confessor, *The Chronicle of Theophanes Confessor: Byzantine and Near Eastern History, AD 284-813*, trans. C. Mango, R. Scott, and G. Greatrex, (New York; Oxford: Clarendon Press, 1997), 608.

[296] Mango, *Le développement,* 20, 41, 60.

[297] Ibid.

[298] Ibid.; Theophanes, *The Chronicle*, 440; Bono, et., all., *The Water Supply*, 1332.

[299] Ibid., 1333.

[300] Magdalino, "Medieval Constantinople,"18.

[301] Ibid.

Crusades and Latin conquest of Istanbul destroyed the entire water system. So that once again, the city became dependent on transported water. By the fifteenth century, the open water reservoirs were filled with earth and used as vegetable gardens.[302]

The early Byzantine monument became a precious bridge since its erection on the hilly topography as the main distribution point inside the walls. Its re-construction by different emperors and, restoration and maintenance activities reflect "mankind's urge to reach the water."[303] The aqueduct was the lifeblood for resurrecting life in the city and a praised infrastructural project.

To sustain the vital source of the city, emperors made significant investments; the maintenance and security of the aqueduct were one of the foremost matters in the city. During the reign of Theodosius, the emperor suspended all the theatrical games and necessitated the praetors to contribute the fund of the Valens Aqueduct.[304] Later Marcian ordered that the consuls should pay 100 lb gold for the repairment of the aqueducts of the city instead of scattering money to the crowd at their inauguration.[305] In the fifth century, by a law of Emperor Zeno, the ordinary consulate carried the same obligation; make payment of gold to the Aqueduct of Constantinople.[306] During the reign of Emperor Justin II, in the sixth century, he bestowed a third of taxes for the renovation of the aqueducts of the city.[307]

The security of the water supply system was also a significant matter so that the Anastasian Long Walls constructed on Thrace which has been suggested to

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[302] Ibid., 19.

[303] Davud Hud, *İstanbul'un Yüz Su Yapısı* (İstanbul: İstanbul Büyükşehir Belediyesi Yayınları, 2010) 32-33.

[304] Richard, Krautheimer. *Three Christian Capitals: Topography and Politics,* (London: University of California Press, 1983), 539.; Arnold H. M. Jones, *The Later Roman Empire 284-602, a Social Economic and Administrative Survey II*, (Oxford: 1964), 695.

[305] Ibid.

[306] Ibid., 533, 695.

[307] Crow et. all., *The Water Supply*, 131.

safeguard the main water supply and the Aqueduct of Valens at the urban landscape.[308] In a similar vein, the Theodosian Land Walls, which is a continuous line between the Black Sea and the Sea of Marmara, enable the security of the immediate hinterland of the city during the sixth and seventh centuries.[309]

The running operation of the Aqueduct was reported in the tenth century by a Syrian prisoner of war. During his stay in Constantinople, in between the 911-913, Harun Ibn Yahya mentioned that the water supply of the city had been brought from Bulgaria, the water had been flowing towards the Aqueduct from a distance equal to twenty days travel. Thus, the three sections of the waterway supplied the Imperial Palace, the baths of Patricians and the prisons with the water had a slightly salty taste.[310] A significant part of the water channels of the Aqueduct had been fallen into disrepair throughout the twelfth to the thirteenth centuries and, were not repaired until the Ottoman use of the channels.[311] Eventually, through the end of the Byzantine rule, in about 1400, the city had been provided to some extent by the water supply system, and the Aqueduct of Valens was still functioning for the provision of drinking water and the irrigation of gardens.[312]

During the Ottoman ruling of Constantinople, the water structure had become the focus of construction projects among the rebuilding program of the city by Mehmed the Conqueror. The aqueduct was once again restored along with a part of the water supply line in the fifteenth century.[313] Other than that, the selection of the site for the New Mosque of Mehmed II was considered to be specified by the

[308] Ibid., 117; Bono, et. all., *The Water Supply*, 1325.

[309] Crow et. all., *The Water Supply*, 121-123.

[310] *Scriptores Orinigum Constantinopolitanarum*, ed. T. Preger (New York, 1975), 4, 17, 149. Also see, Va der Vin, *Travels to Greece and Constantinople,* 287.

[311] Ibid.

[312] Ruy Gonzales Clavijo, *Narrative of the Embassy of Ruy Gonzalez de Clavijo to the Court of Timour at Samarcand, A.D. 1403-6,* ed. Sir Clements Robert Markham (1859), 46.

[313] İnalcık, "The Re-building of Istanbul," 219.

proximity to the water sources; therefore the first monumental mosque of Ottomans and the developing commercial and residential area were located there.[314]

Apart from the restored Byzantine waterworks of Thrace, The Ottoman city of Istanbul has a significant amount of water supply lines from the Halkalı Region. As previously mentioned, the Halkalı Channels provided water to the Ottoman city from its foundation as the capital to the end of the empire. So, starting from Sultan Mehmed II in the fifteenth century, the Aqueduct of Valens retained its strategic role to transmit the water to the upper levels of the city.[315] Among these, the Old Palace of Sultan Mehmed was supplied with the praised fresh waters. Evliya Çelebi renowned the fountain of the Palace and, recalled its softest water sources in the city as the River of Eden in Heaven.[316]

The non-stop used water structure had been extensively repaired and reused to ensure the continuation of the water flow in the Ottoman capital.[317] After "*Kıyamet-i Şuğra*," the great earthquake of 1509, Sultan Bayezid II made repairs in the Old Palace, and the water lines from the Halkalı along with the Aqueduct of Valens, a section of which had collapsed in the vicinity of the Old Palace and, a swamp was formed around.[318] These repairs extended to the damaged "imperial water channels" of the New Palace which were one of the branches of the Halkalı channel passing over the Aqueduct of Valens and distributed from the chamber from a corner of the Old Palace (Fig. 23).[319]

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[314]Kafesçioğlu, *Constantinopolis/İstanbul*, 67.

[315] Crow et., all, "The Water Supply," 114.

[316] Demircanlı, "İstanbul Mimarisi," 466; Evliya Çelebi, *Evliya Çelebi Seyahatnamesi*, ed. Mehmet Zilli İbn Derviş (İstanbul: İkdamMatbaası, 1896), 1: 120-121.

[317] Ibid.

[318] Necipoğlu, "Virtual Archaeology," 320. The swamp is represented in the 1607 map of Halkalı Channel as "the big swamp" (*büyük Batak*): see Çeçen, *Halkalı Suları*, 40; Eyice Semavi, "Bozdoğan Kemeri," *İslam Ansiklopedisi* 3 (İstanbul: TürkiyeDiyanetVakfı, 1988) 320.

[319] Necipoğlu, "Virtual Archaeology," 315, 320.

In the seventeenth century, during the reign of Mustafa II, the last significant restoration of the aqueduct was performed (1697-98) and,[320] the subsequent operations for the maintenance of the Aqueduct remained as small repairs.[321] The following period witnessed the construction of the new water networks from Halkalı region; until the mid-eighteenth century, the Süleymaniye, Mihrimah, Ebusuud, Sultan Ahmet, Köprülü, Beylik and Nuruosmaniye Water Supply Systems employed the water bridge for transferring the waters beyond the Third Hill.

An early nineteenth-century resident of Istanbul (between 1813 and 1817), Andreossy conveyed a detailed account of his visit and wrote a lengthy report on the water sources and distribution of the city. In his detailed memoir, the Aqueduct was described in four pages since it was one of the critical elements of the water supply system inside the city.[322] The French diplomat further expressed that the water was continued to pass through the Aqueduct at the last century of the Ottoman Empire, and "the waters, always clear and always pure" were primarily destined for the service of the Topkapı Palace in the 19th century.[323]

[320] Semavi Eyice, "Bozdoğan Kemeri," *İslam Ansiklopedisi* 3 (İstanbul: Türkiye Diyanet Vakfı, 1988) 320. https://islamansiklopedisi.org.tr/bozdogan-kemeri.

[321] Ibid.

[322] Andreossy, *Constantinople*, 431-434.

[323] Ibid., 432.

CHAPTER 3

THE EMERGENCE OF THE AQUEDUCT OF VALENS IN THE CITYSCAPE OF ISTANBUL

3.1. Early Illustrations of Constantinople

There are plenty of literary accounts of the city of Constantinople which were in many different languages and from a range of periods. However, the produced visual images dated back to before the fall of the city, in 1453 are found extremely rare.[324] The Roman road-map, the so-called Tabula Peutingeriana from the fourth century, is the very ancient visual description showing Constantinople with the column of Constantine the Great, the Golden Horn and the region of Galata (Pera).[325] Another early description of the city with the listing of the city's fourteen regions could have been attached to the anonymous *Urbs Constantinopolitana Nova Roma* which was

[324] Thomas Thomov, "New Information About Cristoforo Buondelmonti's Drawings of Constantinople" Byzantion, Vol. 66, No. 2 (1996), 431.

[325] Thomov, "New Information," 431. The road-map, The Tabula Peutingeriana or Peutinger Table, is a parchment roll of c. 30 cm height and nearly 700 cm width. It was discovered by Konrad Celtes in 1507 and was copied for Ortelius circa twelfth century. The ancient map was published after his death in 1598, it was the first printed facsimile of any ancient map, apart from those of Ptolemy. Since 1737, it entered the Hofbibliothek (now Osterreichische Nationalbibliothek in Vienna). For further information, see Kai Brodersen, "The Presentation of Geographical Knowledge or Travel and Transport in the Roman World, Itineraria non tantum adnotata sed etiam picta," *Travel and Geography in the Roman Empire*, ed. C. Adams and R. Laurence (London and New York: Routledge, 2001): 137-148. On the visibility of the Column of Constantine in the fourth century Constantinople see also Bardill, Constantine, *Divine Emperor of the Christian Golden Age*, 107. On the depiction of the Column of Constantine in the Peutinger Map, see also Yoncacı Arslan, "Towards a New Honorific Column," 12, 112, 258.

compiled under the reign of the Emperor Theodosius II in the 420s.[326] Some of the late medieval miniatures contained pictures of Byzantine Constantinople as well.[327]

A majority of the earliest cartographic representations of Constantinople dated to the following decades of the city's fall, a contemporary period which the city acquired political and cultural consciousness by both European and Ottoman sights.[328] At the beginning of the fifteenth century, there was no extensive or well-established tradition of maps regarding urban topography.[329] However, Christoforo Buondelmonti's visual descriptions in the popular *Liber Insularum Arcipelagi*, regarding the Ionian and Aegean seas including Gallipoli, the shores of the Dardanelles, Mount Athos, Athens and particularly the maps of Constantinople, are assumed as they led to the emergence of the distinctive tradition of the topographic maps during this century (Fig. 24).[330] The genre of *isolario* was created out of the blending of art, literature, and geography then, developed in the Mediterranean region for cosmographic encyclopedia of islands with maps.[331] Along with a wide range of subjects from the historical and mythological facts, the traveler's memoirs, the explorations to the account of military engagements, the "illustrated book of islands" included the very first topographic accounts of Istanbul. Meanwhile, they

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[326] Thomov, "New Information,"431. This description was printed in the addition of P.Gylles's work Gylles' work *De topographia Constantinopoleos*, Lyon 1561.

[327] Thomov, "New Information," 431.

[328] Kafesçioğlu, *Constantinopolis/Istanbul*, 143-144. An image of the city was produced to show the siege of Constantinople by Bertrandon de la Broquiere in 1455.

[329] The finest expression of this tradition of topographical maps is accepted as the woodcut view of Venice by Jacobo de' Barbari from 1500. See, Juergen Schulz, "Jacopo De' Barbari's View of Venice: Map Making, City Views, and Moralized Geography before the Year 1500," *The Art Bulletin* 60, no. 3 (1978): 425-74. doi:10.2307/3049817.

[330] Ian Manners, "Constructing the Image of a City: The Representation of Constantinople in Christopher Buondelmonti's *Liber Insularum Archipelagi," Annals of the Association of American Geographers, 87(1), 1997,* 73.

[331] See, George Tolias, "Isolarii, Fifteenth to Seventeenth Century" in *Cartography in the European Renaissance. Ed. By David Woodward*, (Chicago: University of Chicago Press, 2007) 264. There is no isolario does not contain maps. For a similar definition see also Massimo Donattini, "Bartolomeo da li Sonetti, il suo Isolario e un viaggio di Giovanni Bembo (1525–1530)," *Geographia Antiqua* 3– 4 (1994 –95): 211–36, esp. 211–12.

coincided with the expanding interest in the more realistic cartographic images of cities in the Western World.[332] These Constantinople views were created by similar methods with the conventional Italian city views; they were "bird's eye-views" in technical term and depicted the layout in a plan, yet may have perspective views rendered with the surrounding walls, monuments, and landmarks in elevation.[333]

Cristoforo Buondelmonti was known to have visited the Aegean Islands frequently and, he traveled in Constantinople at least twice.[334] One of these visits to the Byzantine capital was recorded in a superscription of a copy of his *Descriptio Cretae*; "I copied this book and the map of the islands in Constantinople on January 18, 1422." An earlier visit to Constantinople was also written down in the shortest version of the *Liber Insularum,* which mentioned it happened between 1417 and 1420.[335] During these travels, he received a commission to draw a map of the city for Vitold of Lithuania who was the father-in-law of the former Byzantine Emperor, John VIII Palaeologus.[336] His earliest extant manuscripts date from the first half of the fifteenth century and, include one of the rare representations of the city of Constantinople that predates the siege by the Ottomans in 1453.[337] However, the majority of the manuscripts of *Liber Insularum* remained from the 1460s to 1480s.[338] His original text was significantly altered and developed in later copies;

[332] The regional cartography at the end of the fifteenth century had been scarsely attaching importance to accurate representations. Before then, the idea of mapping was regarded as a casual sketcing to indicate some urban relationship. See, P.D.A. Harvey, "Local and Regional Cartography in Medieval Europe," in The *History of Cartography vol. 1: Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean* ed. J.B. Harley and David Woodward (Chicago: The University of Chicago Press, 1987), 464-501.

[333] Ibid., 146.

[334] Manners, "Constructing the Image of a City," 73.

[335] Ibid., and 98, especially, note 5.

[336] Ibid., 98.

[337] Ibid.

[338] Kafesçioğlu, *Constantinopolis/Istanbul*, 145; Manners, "Constructing the Image of a City," 73.

the city images were more elaborate in parallel to the progress in cartographic representations.[339]

Since the Renaissance world was fascinated and excited with the visual image and, the representational modes began to seek to achieve greater realism, the goal in the context of mapmaking, particularly the topographic maps, was describing places and landscapes as they were experienced by a traveler.[340] This trend toward a greater realism is apparent by the cycles of the city illustrations of Constantinople in the manuscript copies of Buondelmonti.[341] The city view of Constantinople in the earliest extant manuscript from 1422, was a walled peninsula including the four columns, three of them are recognizable Columns of Constantine, Theodosius and Justinian and four churches with highly perceptible Hagia Sophia (Fig. 25). The subsequent 1429 map of the city was a simple featured one as a walled space; representing only the church of Hagia Sophia and a single column that was predicted as Agustation.[342] On the contrary, the region of Galata was represented as densely constructed part of the city with having an elaborately depicted Genoese flag. Çiğdem Kafesçioğlu argues that this version of the city map is an iconic image of Byzantium representing the entire capital by its "two most potent symbols" and, it is appeared in different decades and periods, in different contexts (Fig. 26).[343] These earlier versions founded the city in a broader region by illustrating the entire length

[339] Kafesçioğlu, *Constantinopolis/Istanbul*, 145.

[340] Manners, "Constructing the Image of a City," 75.

[341] For detailed information on the genealogy of the maps of Constantinople and their comparison of the images see, Guiseppe Gerola, "Le vedute di Constantinopoli di Cristoforo Buondelmonti," *Studi Bizanti e Neohellenci* 3 (1931): 249–79. For the textual assessment of the Constantinople maps and reconstructuring the development of them see, Hilary Louise Turner, "Christopher Buondelmonti and the Isolario" *Terrae Incognitae* 19 (1987a) 11–28; "Chios and Christopher Buondelmonti's Liber Insularum" *Deltion tis Ethnologikis kai Istorikis Etairis tis Athinas* 30 (1987b) 47–71; "Christopher Buondelmonti: Adventurer, Explorer, and Cartographer" in *Géographie du Monde au Moyen Age et à la Renaissance,* ed. M. Pelletier (Paris: Editions du C. H. T.) 207–16.

[342] Kafesçioğlu, *Constantinopolis/Istanbul*, 145.

[343] Ibid.

of the Bosphorus with the edge of the Black Sea.[344] For instance, they included a two-column structure on the west shore of the Bosporus which was the Diplokionion (the Two Columns), destroyed in an earthquake at the beginning of the sixteenth century (Fig. 27).[345]

3.1. The Ottoman City and the Aqueduct of Valens

Following the earliest visual representations, the shape of the Byzantine capital was almost always represented in a triangular configuration bounded by water on two sides and the land walls on the third. The shortest version of the *Liber Insularum* also supported the visual description of the city, "it is shaped like a triangle and extends eighteen miles in circuit."[346] Most of the later images of the city by Buondelmonti shared this conventional idiom as being more elaborated versions and, his contemporaries produced similar visuals of the city out of a walled enclosure and much more detailed monuments.[347] Towards the trend of greater realism, the fifteenth-century version which is the manuscript housed in the Universitäts-und Landes Bibliothek Düsseldorf is a better-illustrated one even though it has an incompatible scale and perspective (Fig. 28).[348] Its animated quality

[344] Manners, "Constructing the Image of a City," 81.

[345] Ibid.

[346] George P. Majeska, *Russian Travelers to Constantinople in the Fourteenth and Fifteenth Centuries,* (Washington: Dumbarton Oaks Research Library and Collection: 1984), 190. It remained a longstanding description of the city as "triangle-shaped" in the accounts of the medieval visitors to the city. A French priest visited the city in the 12th century compared the layout of the city to the triangular shape of a sail in Van der Vin, *Travellers to Greece and Constantinople*, 518. The similar descriptions of the city "three-cornered", "triangular in shape" are mentioned in Manners, "Constructing the Image of a City," 81 with some other examples.

[347] Kafesçioğlu, *Constantinopolis/Istanbul*, 145.

[348] Manners, "Constructing the Image of a City," 75. The manuscript is currently in the library of Düsseldorf University, DUL Ms G.13 cited by Manners, , "Constructing the Image of a City," 76.

is lacking in the previous versions, and the depiction of the Pera is regarded as the most striking representation.[349]

One of the main reasons why this view differs radically from the previous images is that the Aqueduct of Valens that did not appear in any other map of Buondelmonti before. The Düsseldorf map revealed one of the conspicuous depictions of the Byzantine structure. The Aqueduct was located at the center, upon the legend of the city "Constantinopolis." Complying with the fifteenth-century concept of town depiction,[350] the illustrator rendered the water structure from its elevation on the plan, yet it still gives a sense of three-dimensionality with animating a massive and colonnaded avenue manifesting the Byzantine history of the city (Fig. 28.1). A mid-fifteenth century traveler to the city reported it great size of the Valens Aqueduct.

> …There is also a bridge there, one of the wonders of the world; her breadth puts the rapporteur in such a position to describe her, that he comes to the point of being pulled. At last pictures are so much so that they cannot be described.[351]

As Sarageddin Abu Hafs Omar Ibn al-Wardi's experience, the aqueduct was seen very monumental in dimension without being monumental since it was erected as an infrastructural element. Its precise dimension created a psychological drama of seeing something there constantly by being non-monumental, affecting somebody in a monumental way. The remarks of the Arabic geographer described

[349] For more details on the depiction of Pera in this version see Manners, "Constructing the Image of a City," 75.

[350] According to the description of Nuti the emerging town views including Buondelmonti views of Constantinople, at the very beginning of the fifteenth century, outlined the cities by the fortification walls and scattered the buildings in elevation. For comprehensive information see, Lucia Nuti, "The Perspective Plan in the Sixteenth Century: The Invention of a Representational Language," *The Art Bulletin 76*, no. 1 (1994): 123.

[351] Franz Taeschner, 'Der Bericht des arabischen Geographen Ibn al-Wardi liber Konstantinopel', in *Beitrage zur historischen Geographie~ Kulturgeographie~ Ethnographie und Kartographie~ vornehmlich des Orients*, ed. H. Mzik (Vienna-Leipzig, 1929), 84-91.

the city in detail to confirm the paradoxical monumentality of the aqueduct. He mentioned the location of the city surrounded by water and depicted some of the monuments such as Hippodrome, the statue of Justinian I, some of the columns, and the Aqueduct of Valens.[352] Even though the fifteenth century Constantinople was equipped with monumental churches so unique in size and decoration that expressed by Buondelmonti in a wide range of visuals, Ibn al-Wardi's account had not refer to the Christian edifices. He was mostly affected by the unique presence of the aqueduct and, described it as a bridge that its great size made it rank as "one of the wonders of the world."[353] His remarks on the aqueduct confessed that shortly before the Ottoman rule in the capital, the colossal dimension of the Aqueduct of Valens still occupied a unique place in the skyline of Constantinople by bridging the Third and the Fourth hills.

In contrast with the textual description of the aqueduct, Buondelmonti's visual depiction does not give the impression of the Third and the Fourth hills where the aqueduct extends between the Mosque of Mehmed II to the Old Palace in reality. In the image, the water bridge was detailed with the water channel passing over its bold arches and, bespeaking the restoration of the ancient waterways of the city by the new residents. Nevertheless, it was represented as a single-storey bridge. The Old Palace was shown as a two-story building enclosing the honorific column of Theodosius with its high walls. However, Buondelmonti placed the palace next to the Mosque-Complex of Mehmed II and did not depict the valley that was crossing over by the water bridge from the image. Even though he did not detail this first imperial residence as extensive as the Topkapı Palace, it appeared as a spacious and central building.

The map represents the Aqueduct as if it traverses the whole area between the mosque-complex of Mehmed II and the Hippodrome by passing by the Old Palace, the Column of Justinian and the Hagia Sofia Mosque. Whether it is

[352] Van der Vin, *Travellers to Greece and Constantinople*, 153-154 and 708-710.

[353] Ibid.

intentional or not, reclining the water structure to the Acropolis of the Ancient Byzantion, one of the most prominent position of the peninsula where Topkapı Palace located on,[354] reminds us the water channels to the palace reached over the Aqueduct of Valens.[355] In the image, the Topkapı Palace was rendered with several courtyards in rich detail as if intending to represent the imperial vision of Mehmed II.[356] The representation might be composed to indicate the Byzantine Aqueduct of Valens was used by the Ottomans to supply their Imperial Palace. Such a marker to indicate the water source was further placed in the northwest part with the expression of *aque dulces* "sweet waters" (Fig. 28.2).

The Mosque-Complex of Mehmed II founded a place, both at the western end of the Valens Aqueduct and of a group of monuments together with the adjoined *madrasas*, hospitals, *tabhane* (hospice), *imaret*, *hamam*, and caravansaray buildings to the large and rectangular courtyard.[357] Inside the first and small rectangular courtyard, the illustrator marked the mausoleum of Mehmed with the legend "*sepulchrum soltani Meomet*" (tomb of Sultan Mehmet). As an explicit statement of the new spiritual leadership in the city, the large building of the mosque complex was portrayed as conspicuous as Hagia Sophia. Both the depictions of the original mosque which was destroyed during an earthquake in 1766 [358] and the close

[354] Gülru Necipoğlu, *Architecture, Ceremonial, and Power: The Topkapı Palace in the Fifteenth and Sixteenth Centuries* (Cambridge (Massachusetts), the MIT Press: New York, The Architectural History Foundation, 1991), 4.

[355] Necipoğlu, "Virtual Archaeology," 344; Kazım Çeçen and Celal Kolay, *Topkapı Sarayına Su Sağlayan İsale Hatları* (İstanbul: İSKİ, 1997), 28–30. Also see, Necipoğlu *Architecture, Ceremonial, and Power*, 49; Gelibolulu Mustafa Ali, *Künhü'l Ahbar*, 65. For the water supplies of the Topkapı Palace, see, Bilge, "Fatih Zamanında Topkapı Sarayı Suyu," 216-18; Ekrem Hakkı Ayverdi, *Osmanlı Mimarisinde Fatih Devri 855-886* (Istanbul, 1974), 616-17.

[356] Manners , "Constructing the Image," 90. This New Palace, today is Topkapı Palace, was suggested to be constructed in two phases: between 1459 and 1468 the first phase, the second and third courtyards were built; and the second phase, the construction of the kiosks ad pavilions in the outer gardens, and the separation Wall of the palace with the rest of the city was completed by 1478. See, Necipoğlu, *Architecture, Ceremonial, and Power*.

[357] For the background information on the selection of the site of the Holy Apostles for the New Mosque see, Kafesçioğlu, *Constantinopolis/Istanbul*, 66-68. The detailed description of this complex, its geometry, units and the relation to the city are also mentioned in 92-96.

[358] Manners, "Constructing the Image," 89.

connection of the complex with the Aqueduct from the western foot of the water structure reasonably fit into the archival and the archaeological information. This site for the first sultanic mosque of the newly Ottoman city was selected concerning the presence of the restored water-distribution system here.[359] The only and strange exception of this faithful representation is the absent minaret(s) of the mosque.[360]

Apart from the Aqueduct, the map depicted other particular monuments from the Byzantine era. The Hagia Sophia and the honorific columns of Constantine and Justinian were depicted above and on the northern side of the aqueduct. The Column of Theodosius encircling the borders of the Old Palace of Mehmed II was also located next to the Fatih Mosque, near the western end of the water bridge. On the acropolis of the ancient Byzantium, the representation of the *sphendrone* and *spina* of the Hippodrome along with the Obelisks of Theodosius and Constantine and, the serpent column are evident in the image. Additionally, the Column of Arcadius, the Churches of Pantocrator and St. John of Studios, the Blakhernai Palace, and the great imperial palace of Byzantion were embedded in the illustration with the recently emerged urban elements of Ottomans.[361]

This version of the map pretty much speaks about the conquest of the city by Ottomans in 1453 and the continuing transformation inside. The particular monuments and buildings described in the other versions, notably the honorific columns, palaces, mosques, shipyards, fortresses, cemeteries and all of the new structures reveal the reconstruction of the capital under the reign of Mehmet II. Contrary to the less featured land and sea walls of the city, Buondelmonti depicted the three fortifications of Rumeli Hisarı, Anadolu Hisarı, and the Yedikule Fortress as the most imposing and the most abundant elements on the map relating the defense of the city and evoking the Ottoman conquest.[362] It is also the first time that

[359] Kafesçioğlu, *Constantinopolis/Istanbul*, 67.

[360] The original mosque building was depicted with two minarets in another reliable representation of the city by Melchior Lorichs.

[361] Manners, "Constructing the Image," 87.

[362] Even though the Rumeli Hisarı was not strictly belonged to the Ottoman style and revealed the

the most important religious buildings, the *külliye* at Eyüp, the mosque of Mahmut Paşa, a mosque in Üsküdar (most probably Rum Mehmet Pasha Mosque) and the imperial mosque complex of Mehmed II were presented in the Düsseldorf manuscript as the Ottoman additions to the cityscape. However, nothing is more symbolic to show the changed status of the city than the image of the minaret raising on the buttress in front of the mosque of Hagia Sophia.[363]

On this iconographic composition, among the selected edifices from the former ascendants, the Aqueduct of Valens preserves a significant role so that it finds a place at the center of the view depicting a collection of symbolic monuments in the new Ottoman capital. In the composition, it reaches beyond the practical role distributing a substantial amount of water by extending between the Imperial Palace and the first sultanic mosque of the Ottoman city.

One of the very first printed images of the city which were a reproduction of a copy of 1480, was represented the end of the rule of Mehmed II by the Venetian cartographer, Giovanni Andreas di Vavassore. Dating from the period 1520-1535,[364] the Vavassore map of Constantinople remained as an essential basis for most of the

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features of the of Near East and European 15th century castle capping, in Godfrey Goodwin, *History of Ottoman Architecture* (Baltimore: Johns Hopkins University Press, 1971), 103-105, the construction of Rumeli Hisarı enabled encirclement of Constantinople and the Düsseldorf map reveals the sense of strategic importance of the fortress, Manners, "Constructing the Image," 88.

[363] Manners, "Constructing the Image," 89. The incorporation of the city was symbolized by the church's conversion into a mosque. The ways in which Hagia Sophia was appropriated as an imperial and religious symbol by the Ottomans see Gülru Necipoğlu, "The Life of an Imperial Monument: Hagia Sophia after Byzantium" in *Hagia Sophia from the Age of Justinian to the Present*, ed. R. Mark and A. Ş. Çakmak (Cambridge: Cambridge University Press, 1992), 195–226. The location of this solitary minaret in the image is also seem accurate according to the circumstantial evidence; see William Emerson and Robert L. Van Nice, "Hagia Sophia and the First Minaret Erected after the Conquest of Constantinople" (*American Journal of Archaeology* 54(1), 1950) 28–40.

[364] Kafesçioğlu, *Constantinopolis/Istanbul*, 154. Bagrow has made a suggestion on the date of the view as 1520. By considering the other works of Vavassore, Manners has dated this view to 1530s, Manners, "Constructing the Image," 91. Juergen Schulz has predicted mid-1530s for another view of Vavassore, the view of Venice, so that, the 1530s, the timing of the creation of the Constantinople imagebecame reasonable. Juergen Schulz, "Printed Plans and Panoramic Views of Venice (1486-1797)," *Saggi e Memorie di storia dell'arte 7.* (1970) 5: 23-24. For preliminary information on the cartographic works of Vavassore, see Leo Bagrow, *Giovanni Andreas di Vavassore: A Venetian cartographer of the 16th century; a discriptive list of his maps,* (George H. Beans library, 1939).

topographical maps of the city produced in the sixteenth and seventeenth centuries (Fig. 29).[365] In particular, the revised edition of *Cosmographia* (1550) by Sebastian Münster and the famous Atlas of Cities, *Civitates Orbis Terarum* (1570), of Georg Braun and Frans Hogenberg were quite alike with this visual composition. The editions of the topographic image of Vavassore were privileged in the urban imagery of Istanbul; even long after the building campaign of Sultan Süleyman between 1520 and 1566, the famous scene from the end of Mehmed II's reign remained for displaying the Ottoman city.[366]

The inspiration or the earliest extant version of the map has been controversial due to the concerning of originality of the image. In the early sixteenth-century view, the depiction of the significant Ottoman features, such as the Old and the New Palaces and the Yedikule fortress, constructed during the reign of Mehmed II was evaluated as a derivation of the Düsseldorf map of Buondelmonti by reflecting the similar temporal identity and the power in the city.[367] Manners has suggested that Vavassore excluded many of the enriching details of Düsseldorf map and, he filled the city with the rows of buildings and unfounded street network.[368] The Islamic identity of the city has also been found uncertain, and the overall representation has been assumed as subordinating the Ottoman presence.[369] On the other hand, Albrecht Berger has pointed out the accuracy of the contours of the peninsula, and he has recommended that the original one of Vavassore map of

[365] Manners, "Constructing the Image 91; Kafesçioğlu Constantinopolis/Istanbul, 154.

[366] Ibid., 154.

[367] Manners, "Constructing the Image," 91.

[368] Ibid.; Kafesçioğlu discusses the originality of the view in a great detail and, with an opposition to Manner's ideas, see Kafesçioğlu, Constantinopolis/Istanbul, 154-164.

[369] Manners, "Constructing the Image," 92.

Constantinople might have been a more elaborate and precise drawing than the surviving version.[370]

Kafesçioğlu argues that, in some cases, the monuments inside walls were represented impressionistic and imaginary against the accurate layout of the peninsula. She relates this condition with possible alterations between the production of the original one and the time of its publication.[371] Those major inaccuracies in the image, such as the Yedikule with its colossal dome, the Hagia Sophia with the pitched roof and the fantastically depicted minarets and domes of the New Mosque of Mehmed II were supposed to be misinterpreted during the process of printing or copying by an unfamiliar artist to the architecture of the city.[372] The representation nevertheless reflects the sense of proportion of the scale of principal buildings in the city and their surroundings which is lacking in the map of Düsseldorf and the other manuscripts views of *Isolario* and the *Geography*.[373] Furthermore, the street layout of Vavassore and the main arteries in the city also seem largely accurate rather than rendering the city as a group of monuments installed in the walls.

The sixteenth-century print of Istanbul has also echoed a new idiom of representation which combined the mathematical and pictorial languages of cartography. Namely, engaging of the two distinct manners of Geography and Chorography culminated in the "perspective plan," which has been termed by Lucia Nuti to declare as a new representational language of a perspective system.[374] The mid-sixteenth century was regarded as the turning point from the iconographic city

[370] For detailed information see Albrecht Berger, "Zur sogenannten Stadtansicht des Vavassore," *Istanbuler Mitteilungen* 44 (1994) 329-355.

[371] Kafesçioğlu, Constantinopolis/Istanbul. 156.

[372] Ibid.

[373] Ibid.

[374] For a comprehensive discussion on "perspective plan" see Nuti, "The Perspective Plan," 117. On the Vavassore's perspective plan see also, Necipoğlu, "Visual Cosmopolitanism, 27.

plans to the paintings which were mediated with both observation and measurement. Based on the imposing of the three-dimensional urban texture to the city plan, the created perspective representation provides more than an elevation. By keeping in mind these examinations, the resulting oblique view of Vavassore strikingly contrasts the bird's-eye views and illustrated copies of *Isolario.* Those were two-dimensionally depicted monuments by Buondelmonti seem as floating objects within a space enclosed by the city walls and, they were lack of a proper reference for scale and spatial relationships between them.[375]

Further comments by Kafesçioğlu asserts that the view of Vavassore, among its contemporaries, was one of the very first attempts to convey a modern representation intending to render a more realistic image of the Ottoman capital.[376] This, in turn, supports the idea that the creator of the view was familiar with the environment. Berger suggests that the maker must have composed several partial drawings with on-site studies and, he must have worked in the capital for a considerable amount of time.[377] These are readable from several accurately depicted features in the map; such as the main arteries, the more densely built area on the eastern edge of the peninsula, the precisely inscribed land walls and the undeveloped part of the city close to these walls.

With the premise that the Vavassore map exposes more elaborate and total depiction of the city than the former representations by Buondelmonti, no wonder it possesses a rendering of the Aqueduct of Valens better and accurate relation to the rest of the urban texture. At first, its locational references are accurate; on the north-western section of the peninsula, starting from one of the corners of the pentagonal boundary of the First Palace of Mehmed II, the Byzantine heritage is extended along the entire northern front of the coarsely depicted Mosque-Complex of Mehmed II (Fig. 29.1). In the big picture, among the seventy numbers of monuments (Fig.

[375] Ibid, 123.

[376] Kafesçioğlu, Constantinopolis/Istanbul, 158.

[377] Berger, "Zur sogenannten Stadtansicht des Vavassore," 335-338.

30),[378] including, the Mosque of Mehmed II and his palaces, the fortification walls, the ports, the honorific columns of Byzantine city, the Hippodrome, the Great and Blachernae Palaces, the Yedikule Fortress and so on, the Aqueduct of Valens is a slight component of the urban narrative of Vavassore's Istanbul. The urban text throughout the new Ottoman capital becomes readable; the illustrator featured the royal interventions of Mehmed's all principal projects. At the same time, he represented a large number of antiquities of Byzantium in proper locations. The title of his image, *Byzantium sive Constantinopolis*, "Byzantium or Constantinopolis," reveals multiple references to the identity of the city in the new political order.[379]

In detail, the height of the water structure is scaled down according to its single-story rows. Vavassore's view is silent about the two layers of arches of water bridge spanning the deep valley between the third and the fourth hills. The Aqueduct of Valens is rendered as a slender curve, visible with its northern façade facing the Golden Horn. The *stalla*, or "barn" is settled at the rear, on the southern side of the structure. On the eastern end of the aqueduct, the roofed tower-like structure is standing out; it very likely the first depiction of the water tower of the Aqueduct in a visual representation of the city. Such an elaboration demonstrates how the map maker precisely described the water structure and, put emphasize for every part of the image since any other visual regarding the urbanscape of Constantinople specifies the water tower unless the monumental panorama of Melchior Lorichs (1559). Nevertheless, the detailed depiction of the Byzantine heritage is not complemented with labeling accentuating its privileged presence in the peninsula and, relocating it among another category of monuments.

In the sixteenth century, as mentioned before, the Vavassore view remained as a basis for most of the reproductions of the image of the city and the versions were published in a wide range of city atlases. The most well-known

[378] Berger also mentions about every monument in, "Zur sogenannten Stadtansicht des Vavassore," 338-355.

[379] The new political order of the Ottoman capital and its "re-presentation" to the West is extensively discussed in Kafesçioğlu, Constantinopolis/Istanbul, 162-164.

editions belonged to Sebastian Münster's *Cosmographia* of 1550 and the widespread city atlas, *Civitates Orbis Terrarum* (1572), apart from the multitude of reproduced prints by Guillaume Gueroult, Antoine du Pinet, Giulio Ballino, Paolo Furlani, Giovanni Francesco Camocio, Abraham Sahur and any other publisher revealing smaller collections of city views. These printed images of Constantinople were silent about the Christian history of the city; the signs and legends regarding the memory of Byzantium were no more visible.[380]

When Ptolemy's images and ideas became familiar through the new medium of printing, almost every map maker, including Sebastian Münster, published editions of the *Geographia* and prepared new maps for it.[381] His view of Constantinople was revealed in such a milieu and published from a German edition of the "Cosmographia," which was printed in 1550 (Fig. 31). Münster's image yields no novelty in terms on the perception of the Aqueduct of Valens; the water bridge remained almost identical with the former representation in terms of its relation to the surrounding monuments, the location and scale, its linear form and the water tower of the structure on the eastern end as well. As long as the image replicates the outline, the viewpoint and the way Vavassore depicted the monuments, the generated scene is not anticipated as a recognized level of originality unless it has a cleaner composition and distinctly plotted lines.

The more prevalent reproduction of Vavassore pertains to the monumental city atlas of George Braun and Frans Hogenberg's *Civitates Orbis Terrarum* (Fig. 32).[382] Between 1572 and 1618, it was published in six volumes which gave rise to a flood of imitations and single-sheet reproductions of city maps of the atlas until

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[380] Ibid., 167.

[381] Ian Manners, *European Cartographers and the Ottoman World, 1500–1750: Maps from the Collection of O. J. Sopranos*, (Chicago: The Oriental Institute, 2007), 24. https://oi.uchicago.edu/sites/oi.uchicago.edu/files/uploads/shared/docs/oimp27.pdf.

[382] For an explanatory publishing information on the atlas of *Civitates Orbis Terrarum* see Manners, *European Cartographers*, 112. Also see, Georg Braun and Frans Hogenberg, *Civitates Orbis Terrarum, 1572–1618* (New York: World Publishing Company, 1966).

sometime in the middle of the eighteenth century.[383] Nearly over two and a half centuries, the view of Constantinople was sustained in time and fixed the image of the city to the end of Mehmed II's rule.[384] One very peculiar feature of this view is the equestrian portrait of the Ottoman sultan with his attendants. A series of portraits from the Ottoman dynasty were inserted in the bottom of the image as if they were framing the city and the city's history. As highlighted by Kafescioğlu, the most striking difference is the new title *Byzantium Nunc Constantinopolis*, "Byzantium now Constantinopolis" announcing the lands firmly belonging to Ottoman hands.[385] The Byzantine structure, the Aqueduct of Valens, was much the same concerning the previous versions of Vavassore. Since an almost identical image persisted in time, the Byzantine Aqueduct of the city sustained its ties to the Ottoman lands. The duplication of its image in terms of the viewing angle, the scale and the location have long prevailed in the urban image of Istanbul.

[383] Manners, "Constructing the Image," 92.

[384] Manners, *European Cartographers*, 76.

[385] Kafesçioğlu, Constantinopolis/Istanbul, 167.

CHAPTER 4

THE CITY VIEWED BY OTTOMANS

4.1. Ottoman Perception of the Aqueduct of Valens

The Ottoman society maintained several cartographic traditions between the early fifteenth century to the final quarter of the eighteenth century. These mainly include the diverse examples of state-sponsored cartography from military, administrative, and architectural to the private, scientific, religious, and artistic forms of mapmaking. Among the two broad categories of maps, the inventory of the state seems sturdy on the patterns of mapmaking in the Ottoman artistic circle.[386] The more traditional and integral part of Ottoman cartography that developed under the patronage of the sultans are the *şehnâmes*; panegyric illustrated royal histories of the Empire by about 1537.[387] This pictorial genre constitutes an original contribution to

[386] Ahmet T. Karamustafa, "Military, Administrative, and Scholarly Maps and Plans" in *The History of Cartography: Cartography in the Traditional Islamic and South Asian Societies* Vol. 2., pt.1, ed. By Harley, J. B. and David Woodward (Chicago: University of Chicago Press, 1992), 209. Many of the Ottoman maps held at the Topkapı Sarayı Müzesi Kütüphanesi; for their brief descriptions see, Fehmi EdhemKaratay, *Topkapı SarayıMuzesi Kutuphanesi: Turkçe Yazmalar Katalogu*, (Istanbul: Topkapi Sarayı Müzesi, 1961), 1:464-77; Also for English translation of the maps in Topkapı Palace, see, Evert Hans van de Waal, "Manuscript Maps in the Topkapı Saray Library, Istanbul," *ImagoMundi* 23 (1969): 81-95. For more general examination on the Ottoman cartography see, Klaus Kreiser, "TürkischeKartographie," in *Lexikonzur Geschichte der Kartographie*, 2 vols., ed. Ingrid Kretschmer, Johannes Dorflinger, and Franz Wawrik (Vienna: Franz Deuticke, 1986), 2:828-30; Franz Taeschner, "lliughrafiya: The Ottoman Geographers," in *The Encyclopaedia of Islam*, new ed. (Leiden: E. J. Brill, 1960-), 2:587-90; Hüseyin Dağtekin, "Bizde tarih haritacılığı ve kaynakları üzerine bir araştırma," *in VIII. Türk Tarih Kongresi, Ankara 11.-15. Ekim 1976* (Ankara: Türk Tarih Kurumu, 1979-83), 2:1141-81; Abdulhak Adnan Adıvar, *Osmanlı Türklerinde İlim*, 4th ed. (Istanbul: Remzi Kitabevi, 1982).

[387] The earliest extant illustrated histories with containing miniatures are the *Şâhnnâme* (Book of Kings) by Melik Ümmi (1500) and the *Selimnâme* (History of Sultan Selim I) by Şükri Bidlisi (1525) in Istanbul, Topkapı Sarayı Müzesi Kütüphanesi, H. 1123 and H. 597-98. J. M. Rogers, "Itineraries and Town Views in Ottoman Histories" in *The History of Cartography: Cartography in the*

cartography as being a foremost development of Turkish miniature painting.[388] In the first place, the intention of these histories was recording the power of the empire and representation of the military conquests, political, and cultural achievements.[389] Meanwhile, the depiction of personages such as sultans, viziers and ambassadors and, the historical settings as the landscapes where the events took place, were illustrated by this imperial imagery.[390]

The Ottoman intention for detailed representations of towns and landscapes were generally based on foreign influences. The established imperial studio was suggested to be the origin of such illustrations with the contribution of invited Italian artists by Sultan Mehmed II.[391] Shortly after, during the subsequent reign of Beyazıt II, the court was impressed by Persian and Turkoman traditions through contact with artists from Tabriz and Herat.[392] In fact, until the first half of the sixteenth century, the representation of urban topography is almost totally omitted within the Islamic painting tradition except some views of the city of Baghdad illustrated in the fourteenth and fifteenth centuries in and, in an *Akkoyunlu* Anthology produced in the fifteenth century.[393]

Traditional Islamic and South Asian Societies Vol. 2., pt.1, ed. By Harley, J. B. and David Woodward (Chicago: University of Chicago Press, 1992), 228.

[388] Ibid.

[389] Rogers mentions about the reflection of the dynastic rivalry between the Ottomans and the Safavids on the illustrated histories. The dynastic chroniclers also reached their peak on the second half of the sixteenth century, during the reigns of Murad III and Mehmed III. See, 228-229.

[390] Ibid., See also, Elanor G. Sims, "The Turks and Illustrated Historical Texts," in *Fifth International Congress of Turkish Art*, ed. G. Feher (Budapest: Akademai Kiado, 1978), 747-72.

[391] Esin Atıl, "Ottoman Miniature Painting under Sultan Mehmed II," *Ars Orientalis* 9 (1973): 103-104, and Ernst J. Grube, "Notes on Ottoman Painting in the 15th Century," in *Islamic Art and Architecture* ed. A. Daneshvari (1981), 51-62.

[392] Rogers, "Itineraries and Town Views," 230.

[393] Ibid. The two illustrations, dated 1350 are in the Diez albums (Berlin, Staatsbibliothek Preussischer Kulturbesitz, Diez A, Foliant 70, pp. 4 and 7); see Mazhar Sevket İpşiroğlu, *Saray-alben: Diez'scheKlebebandeaus den Berliner Sammlungen, Verzeichnis der* Orientalischen Handschriften in Deutschland, (Wiesbaden: Franz Steiner, 1964), 17-18. The Akkoyunlu version is in

Within the Ottoman cartographical context, the emergence of topographical representations coincided with the maritime charts in the versions of *Kitab-ı Bahriye* (Book of maritime matters) from 1470-1554.[394] Apart from being renowned for his the earliest extant map of the New World, Piri Reis's sectional maps, especially regarding the coastal areas of the Mediterranean, are incredible early-sixteenth-century maps.[395] Nevertheless, the principal creations of Ottomans regarding the topographical illustrations of Istanbul are generally attributed to the *Beyan-I Menazil-I Sefer-I Irakeyn-I Sultan Süleyman Han* which is also known as *Mecmu'-iMenâzil* (The Collection of Stations) by Matrakçı Nasuh (Fig. 33).[396] This remarkable source is the most frequently referenced since it has the depictions of cities which were indicated in a schematized way but having the greatest topographical and architectural accuracy.[397] The book prepared for the sultan concerned the military campaign of Süleyman I to Iraq and western Iran, against the

London, British Library, Add. MS. 16561, fo1. 60a; signed by the dervish Naşir Bukhara'ı See Norah M. Titley, *Miniatures from Persian' Manuscripts: A Catalogue and Subject Index of Paintings from Persia, India and Turkey in the British Library and the British Museum* (London: British Library, 1977), no. 97. A reproduction of the view is published in Thomas W. Arnold, *Painting in Islam: A Study of the Place of Pictorial Art in Muslim Culture* (1928; reprinted New York: Dover, 1965), fig. II.

[394] Rogers (1992), 231. The first version is dated 1521; an expanded one is prepared by Piri Reis in 1526 and dedicated to Sultan Süleyman. The second version of the manuscript is in Topkapı Sarayı Müzesi Kütüphanesi, H. 642. See also, Kafesçioğlu (2013), 504-505.

[395] Pinto, Karen, "Cartography" in *Medieval Islamic Civilization: An Encyclopedia*, ed. Josef Meri (New York: Routledge, 2005), 140.

[396] Rogers, "Itineraries and Town Views," 235. The miniature map is in İstanbul Universitesi Kutuphanesi (İÜK), MS, T. 5964 (cited by Orbay, "Istanbul Viewed," 29). The title is mentioned by the author on fol. 12v. "(…) Bu resm içünkü bünyâd itdi üstâd/ Menâzil ismi itmek gerek yâd,". See also, Hüseyin G., Yurdaydın, *Beyan-I Menazil-I Sefer-I Irakeyn-I Sultan Süleyman Han,* (Ankara: Türk Tarih Kurumu Basımevi, 1976.) For introductory study for MatrakçıNasuh and his works see also, Hüseyin g., Yurdaydın, *MatrakçıNasuh*, (Ankara: Ankara ÜniversitesiBasımevi: 1963). For a briefer overview of Nasuh's work see also idem, "An Ottoman historian of the XVIth century: Nasūh Al-Matrākī and his Beyān-ı Menāzil-iSefer-i 'Irākayn and its importance for some 'Irāqī cities," *Turcica 7* (1975): 179-87.

[397] Walter B Denny, "A Sixteenth-Century Architectural Plan of Istanbul," *Ars Orientalis* 8 (1970): 49.

Safavids in 1533-36 and, dated to 1537-38.[398] Concerning the statements of the author, Matrakci Nâsuh,[399] he is the only author of the illustrations but not of the text.[400]

The manuscripts of Nâsuh's work are closely linked with the tradition of *şehname,* conquest narrative and itinerary yet, his landscape imagery is distinctive compared with former representations of Islamic painting. His works are usually evaluated outside the mainstream tradition and deemed as unique creations, which led to a transformative impact on the later authors for innovative approaches to the city views in the historical narratives.[401] Accordingly, these subsequent Ottoman artists and mapmakers are regarded as more versatile and developed urban topographies together from the pictorial images. Furthermore, the *Mecmu'-i Menâzil* revealed more than the representation of an itinerary by recording the territorial extension of the Ottoman empire.[402] Through the mapping of the geographical reach of the campaign of Süleyman, the chronicle may be easily linked to a wider concern

[398] He is also known as Nâsuhüs-Silâhî el- Mâtrâkî which is noted in the colophon on fol 109r as: "Sultan Suleyman-i Kanuni bendeganindan Nasuhüs-Silahi el-Matraki." See the French art historian Albert Gabriel, "Les etapesd'unecampagne dans les deux 'Irakd'apres un manuscript turc du XVI siecle," Syria 9 (1928): 329. Also see, Franz Taeschner, "The Itinerary of the First Persian Campaign of Sultan Suleyman, 1534-36, according to Nasuh al-Matraki," *Imago Mundi 18* (1956): 53.

[399] For detailed information about the author and his works see also, Hüseyin Yurdaydın, "Matrakçı Nasuh'un Hayatı ve Eserleri ile İlgili Yeni Bilgiler." *Belleten* 29 (1965): 329–54. About his education and early career see, Aşık Çelebi, *Meşa'ir el-Şua'râ*, British Museum, or. 6434, fol 153a.

[400] The statement has been mentioned by Yurdaydın, see *Beyan-i Menazil,* 13 (131-32) and 31-32 (152, 223). Rogers claimed several artists created the illustrations with the different style and contents. See Rogers, "Itıneraries and Town Views," 236. See also, Franz Taeschner's comparison between the MatrakçıNasuh's illustrations and the actual features they represent in "The Itinerary of the First Persian Campaign of Sultan Süleyman, 1534-36, according to Nasuh al-Matraki," *Imago Mundi* 13 (1956):53-55. However, Yurdaydın refers him as an Ottoman *nakkaş* (illustrator) and, mentions that Nasuh illustrated some significant parts of his two histories apart from the Menazil, see, Yurdaydın, H. "Matrakçı Nasuh'un Minyatürlü İki Yeni Eseri." *Belleten* 110 (1964): 229–37.

[401] Kathryn A. Ebel, "Representations of the Frontier in Ottoman Town Views of the Sixteenth Century," *Imago Mundi* 60, no 1(2008), 4. See also Manners, *European Cartographers*, 72-73.

[402] Ebel, "Representations of the Frontier in Ottoman Town Views," 7.

for representing power. In total, the manuscript book represents the visualization of imperial progress, which was frequently appreciated by the textual historiography.[403]

All the miniatures in the volume, comprise depictions of the cities, towns or countrysides where the sultan camped and visited during the marches with his army. Those displaying the topographical context of the places without human figures and, the landscape are represented from above as a backdrop.[404] The three-dimensional structures and features are introduced in elevation or sometimes with an oblique view.[405] Both the text and the images portray the spatial progression of the sultan's army instead of describing battle scenes and sieges.[406]

In contrast to the pioneering status of the book, its renowned double-page view of Istanbul which represents the capital between the mid-fifteenth century and the early sixteenth century is referred as the only illustration of Menazil related with the European impression.[407] The view is accepted as a representative of Ottoman manuscript painting by adapting some courses of Italian bird's eye views; particularly the incorporation of Christoforo Buondelmonti's *Isolario* or the versions of Ptolemy's *Geographia*.[408]

[403] Orbay has linked Nasuh's interest of descrbing places to the prevalent tendency of image-making for the representation of power in 33. She based her ideas upon Christine Woodhead's remarks; "Perspectives of Süleyman," in *Süleyman the Magnificent and His Age: The Ottoman Empire in the Early Modern World,* ed. by M. Kunt and C. Woodhead (London: Longman, 1995), 166-67.

[404] Manners, *European Cartographers*, 72.

[405] Orbay, "Istanbul Viewed," 30.

[406] Ibid., 31.

[407] Rogers, "Itineraries and Town Views," 237.

[408] Çiğdem Kafesçioğlu, "Ottoman Images of Istanbul in the Age of Empire: The View from Heavens, the View from the Street," in *From Byzantion to Istanbul: 8000 years of a Capital*, ed. Koray Durak, (İstanbul: Sabancı Müzesi Yayınları, 2010), 314, 315.

Matrakçı's Istanbul map which measures 31.6 * 46.6 cm yet in original format was regarded larger,[409] revealed a city of monuments by employing a large number of depicted buildings endowed by the sultans, the Ottoman dynastic family, and the ruling elite.[410] The map comprises the walled city of Istanbul on the right half of the layout; the illustrator located the suburbs of Eyüp and Üsküdar, and Galata on the other half to the left. The body of water by the Golden Horn separates the historical peninsula from Galata and, the Bosphorus creates a border between Üsküdar and the rest of the city. Here, the walled part is rendered as a uniformly built urban center in almost a rectangular shape by disregarding the common references of historical texts and the earlier depictions to the triangular shape of the peninsula.[411] With a clear indication of representing the capital as a uniformly developed city, the map contains a homogeneity for the distribution of the structures and concludes with the punctuation of the religious and commercial centers.[412] Matrakçı employed cartographic distortions and symmetries along with the variants of viewpoints in order to create pictorial emphases.[413]

Matrakcı's map focuses on the individual monuments in certain types of greenery areas. The uniformly patterned collection of monuments still reflects some levels of hierarchy among the category of monuments. In the composition, the symmetrical arrangements are discerned to make special visual emphasis on some of

[409] Orbay, "İstanbul Viewed," 47. Since the book has been rebound more than once, the pages are assumed to be undergone considerable trimming. See, Albert Gabriel, "Etapes," 328 and 344; Esin Atıl, *The Age of Süleyman The Magnificent* (New York: National Gallery of Art, 1997), 309; Rogers and Ward, Süleyman the Magnificent, 90 and 106. For the sequence of the extant folios see Yurdaydın's facsimile edition in Beyan-ı Menazil.

[410] Kafesçioğlu, "Ottoman Images," 315.

[411] The triangular shape also involves simplification and often mentioned as the features of the capital city by Arab geographers such as al-Wardi (died 1457) referred "three cornered" in a translation of his Haridat into Turkish by ali bin Abdurrahman. Also, in Pierre Gilles, The Anntiquities of Constantinople. As well as in Ottoman writers; Latifi, *Evsaf-i istanbul (ca. 1522-3),* ed. by Nermin Suner (Istanbul: istanbul Fetih Cemiyeti, 1977), 12; Evliya Çelebi, Seyahatname, 67.47; Gabriel, "Etapes," 333.

[412] Orbay, "İstanbul Viewed," 49.

[413] Ibid., 46.

the structures.[414] One of the most prominent of these symmetrical order in the double-page composition, the horizontal axis passing through the Galata Tower to the Old Palace Complex takes the attention. In the walled city of Istanbul, with a special emphasis, a vertical axis created an "ideological symmetry"[415] by connecting the great mosques of Hagia Sofia and Fatih. These two intersecting axes are the most perceivable dominance in the composition. Among the Hagia Sofia and the Fatih Mosque, the Old Palace precisely stands at the crossing point. Both its position representing the center of the city and the significance for the first imperial residence corresponds to this arrangement.

The Byzantine heritage of the Aqueduct of Valens was settled on the south-west point of the vertical axis of the most highlighted landmarks in the map of Istanbul. It is most likely a deliberate choice to get the aqueduct off the axis while the water bridge extends between the Fatih Mosque and the Old Palace in reality. Since the linear arrangements of the buildings correspond to that of an urban path,[416] the vertical line of the Hagia Sophia and Fatih Mosque represents the path of "Divanyolu," the ceremonial axis through the Edirne Gate and the northern branch of the Byzantine thoroughfare Mese.[417] The Aqueduct of Valens accompanied the Divan axis from Beyazıt and the Old Palace to the Fatih Complex and,[418] its presence is sensible among the larger structures, the same way of a colonnaded street, the water bridge is visible in elevation (Fig. 33.1). The exclusion of this apparent structure from the preferential path could bear the categorization of the monuments and the relocation of the status of the aqueduct into the second. Thus,

[414] Orbay denoted a heading for analyising the symmetrical order in the Istanbul Map of Matrakcı and idenfied every individual the symmetrical arrangement. See, 56-59.

[415] Ibid., 57.

[416] This pictorial method was already originated in the illustrative scrolls and, the pre-modern European itineraries have parallelism with this technique, see P.D.A. Harvey, *The history of topographical maps: symbols, pictures and surveys* (London: Thames and Hudson, 1980), 40.

[417] For further information on Mese, see Mango, *Le développement*, 27-32 and 42-4.

[418] For an axonometric view of the Divan axis, and the detailed information on the Divanyolu in Ottoman Istanbul see, Cerasi, "Divanyolu," 189-232.

the hierarchy among the structures is legible by depending on scale and accuracy; the significant buildings are the most detailed, and their size on the map is relatively larger.[419] Accordingly, the depiction of the Aqueduct is more dependent on a generic typology; it seems as a conventionalized bridge that with the shortened span and arches to one story.

On the other hand, Matrakçı's plan demonstrates an awareness of the developed urban architecture in the city and around the Aqueduct very well (Fig. 34). The *Kalenderhane* Mosque (formerly the Akataleptos Church) on the eastern wing of the Aqueduct is for the first time visible in an urban representation. The illustration correctly indicates an adjacent relationship of the Church with the Byzantine bridge.[420] The Pantocrator Church is apparent as well as, it was inscribed on the western end, immediately below the Aqueduct. In terms of further indicators, certain stylizations in the map were used to refer to some specific types of buildings; the artist's use of color distinguishes constructional categories of the structures. The Aqueduct is chosen to be represented in grey to indicate stone construction while the structures in yellow or white are designated as stuccoed brick.

In the overall composition the suburb of Galata is depicted as it has seen from Istanbul; Matrakçı depicted the buildings around there as facing the historical peninsula. However, the imperial mainland of Istanbul does not relate to the reciprocity of viewing directions; the capital is perceived from a particular viewpoint of east-west direction to project the imperial outlook of the city.[421] Among these arrangements, the Aqueduct remains just out of the imperial path, the Byzantine bridge is approximated to the Golden Horn and, drawn in elevation as viewed from Galata. Its horizontal body elongated through the east-west axis could be obstructed

[419] Denny, "A Sixteenth-Century Architectural Plan," 50.

[420] Albert Gabriel identified another mosque as the *Kalenderhane*, yet depending on the proximity to the aqueduct and its dome on a high drum Denny indicates this one is the *Kalenderhane* Mosque. See, Denny, "A Sixteenth-Century Architectural Plan," 60.

[421] The "east-oriented" depiction is also linked with the military campaign which Menazil formerly describes, see Orbay, "İstanbul Viewed," 63.

to the east-oriented viewpoint. Nevertheless, the simplified rendering to a one-story bridge comprised of eight sets of arches offsets the aqueduct among another category of monuments. In particular, in comparison with the elaboration of the imperial landmarks, such as the Topkapı Palace, the Hagia Sophia Mosque and Fatih Mosque.

After all, we still need to bear in mind that Matrakcı created a symbolic Istanbul view, he chose the recognizable structures in the early sixteenth century rather than representing every single monument.[422] Even though he depicted a wide number of structures, over two hundred inside this rectangular peninsula, all of them are not in a recognizable manner due to their form and location.[423] The artists' selection was a consequence of representing an urbanized, ideal city by giving priority to specific landmarks; the palaces, mosques, charitable and some commercial buildings. Matrakçı tends to use generic typologies for creating a unified urban space. Inside this composition, the Byzantine aqueduct is still depicted in a recognizable manner with an entirely accurate positioning in the peninsula. It ensures the prominence as being a selected monument in a carefully constructed imperial landscape visualizing the initial Ottoman interpretation of urban space.

Another lavishly produced Istanbul Map belongs to the Ottoman manuscript book, *Hünername* from the late sixteenth century, shared the same monumental quality with Matrakçı's Istanbul view (Fig. 35).[424] The size, coloration and detailed content of the quite densely depicted city of Istanbul in *Hünername* is interpreted with the eulogistic representation just like the contemporaneous map in *Menazil* which is celebrating the glory of the capital in other words.[425] However this

[422] Kafesçioğlu, "Ottoman Images of Istanbul," 315.

[423] Denny, "A Sixteenth-Century Architectural Plan," 50.

[424] Seyyid Lokman, *Hünername*, Topkapı Palace Museum Library, H. 1523, fol' 158b-159a (cited by Orbay, "Istanbul Viewed," 73). The book was written by Seyyid Lokman as two volumes during the reign of Murad III. In a chronological order, the book covers the lives and the accomplishements of Ottoman sultans starting from the reign of Osman I, the first Ottoman Sultan to the reign of Selim I, for the detaied examination of the book and the Istanbul view see, Orbay, "Istanbul Viewed," 73-114.

[425] Ibid., 74.

time, the map commemorated the Ottoman Istanbul in a more naturalistic way. Namely, an axial configuration for denoting the significant monuments is absent; instead, the map provides the hierarchy among the represented structures by the layout and scale differences. In the monumental prospect of *Hünername* view, the urban space is full of the stacking streets of houses for reflecting the growing construction works in the second half of the sixteenth century.[426] The view represented the Ottoman capital by discrete views seen from inside the city.

Within the dense urban fabric, the Ottoman monuments are recognizable such as the sultanic mosques of Süleymaniye, Bayezid, Fatih and Sultan Selim; the Topkapı and Old Palace; commercial buildings and small mosques along with a small portion of Byzantine structures such as Hippodrome, Hagia Sophia and some of the honorific columns.[427] One of the Byzantine structures of the ancient city did not refer by the *Hünername* view; the Valens Aqueduct was not one of the emphases of the cityscape of Istanbul here. In fact, the map does not give a taste of individual characteristics of the structures. Instead, it conveyed a perception of the urban image of Istanbul from outside and all-around. This overall approach further emphasized the northern cityscape which has been considered in the total composition instead of particular monuments dominating there. Together with the absence of individual phases, the *Hünername* map seems to ignore the Valens Aqueduct in the overall outlook of Istanbul.

Ottoman topographical illustrations regarding the urban landscape emerged about the late fifteenth and the early sixteenth centuries by the two versions of *Kitâb-I Bahriye* (The book of Maritime Matters) by the naval captain Muhyiddin Piri Re'is (1470-1554).[428] He is believed to have made numerous voyages with his

[426] Ibid., 321.

[427] For the identification of the depicted buildings, the viewpoints and the urban topography of the image see Orbay, "Istanbul Viewed," 85-97.

[428] The first version of the book is dated 1521. Piri Re'is completed an expanded version to dedicate

uncle Kemal Reis, an admiral in Ottoman navy.[429] After the death of his uncle, Piri Reis left the navy in 1511 and returned to Gallipoli where he was born in and, he started to work on both a world map, completed in 1513 and the notes for the *Kitab-ı Bahriye*.[430] In 1517, when he returned to the Ottoman navy, he had emerged among the most important geographers under Sultan Selim's patronage as a celebrated sea captain and the cartographer.[431]

The earlier and shorter version of *Kitab-ı Bahriye* consisted of 130 chapters and charts, was completed in 1521 and the second version of 210 charts appeared after five years later to gain the favor of the sultan.[432] Both of the versions exist in several manuscripts yet, none of them has been identified as Piri Re'is's original creation by his own hands.[433] The brief prose is placed on the beginnings of both versions to explain his dedication and the reason Piri Reis composed the book; a present for the enthronement of Sultan Süleyman in 1520 so, he "might attain fame and honor."[434]

These extant manuscripts of the naval captain are a manual of sailing directions concerning the Mediterranean Sea and, regarded as the early direct

Sultan Süleyman in 1526. An entire facsimile of the long-version Kitab-i Bahriye (MS, SK, Ayasofya 2612) was published by the Turkish Historical Society, see Piri Reis, *Kitab-i Bahriye*, ed. By Haydar Alpagut and Fevzi Kurtoglu (Istanbul: Devlet Basimevi, 1935).

[429] Svat Soucek, "Islamic Charting in Mediterranean," in *The History of Cartography: Cartography in the Traditional Islamic and South Asian Societies* Vol. 2., pt.1, ed. By Harley, J. B. and David Woodward (Chicago: University of Chicago Press, 1992), 267.

[430] Ibid.

[431] Giancarlo Casale, *The Ottoman Age of Exploration,* (Oxford; New York: Oxford University Press, 2010), 23. For more general information see, Svat Soucek, *Piri Reis and Turkish Mapmaking after Columbus* (Oxford, 1996) . On the connection of Sultan Selim and Piri Reis see, Andrew Hess, "Piri Reis and the Ottoman Response to the Voyages of Discovery," *Terrae Incognitae* 6 (1974): 19–37.

[432] Soucek "Islamic Charting," 269.

[433] Ibid., 272.

[434] For the translation of Piri Re'is's dedication to monarch see, Ibid., 272. For the original see, Piri Re'is, *Kitab-i Bahriye*, 1:38-47 (fols. 2a-4a), esp. 38-39 (fol. 2a) (note 14).

evidence of Ottoman chart-making.[435] Both versions seek to describe the Aegean coasts generally on the Anatolian side, yet included a clockwise tour of entire Mediterranean, as well.[436] In structure and style, the book is closely linked with Italian *isolarii* by using of its conventions and several of its illustrations.[437] Additionally, the common use of schematized depiction for the architectural texture, fortified tower representation with the single building typology of the urban fabric formed the illustrative way of *Kitab-ı Bahriye*.[438]

Within the limits of the geographical coverage of *Kitab-ı Bahriye*, starting and ending the Mediterranean tour at the Dardanelles, the Marmara Sea and Istanbul remain beyond the original scope of the book. Nonetheless, the Istanbul map is not an early addition and with a weak association to Piri Reis.[439] In various sources, it specifies that Piri Reis had not pointed out the inclusion of the Ottoman capital in his brief description of *Kitab-ı Bahriye*. Eventually, the various Istanbul maps were added to the later manuscripts of the *Bahriye* during the process of copying the book.[440] From the late sixteenth century onwards, these additions and the modifications of the Istanbul view represent a continuing effort for improving the illustrative quality of Piri's work by all means. On the other hand, the encouragement of the visualization of Istanbul in the book is related to the demand of self-representation of the Ottoman capital within the context of the Mediterranean

[435] Soucek "Islamic Charting," 266.

[436] Ibid., 273.

[437] Rogers, "Itineraries and Town Views," 231.

[438] Ibid.

[439] Orbay, "Istanbul Viewed,"120.

[440] Ibid., 121; Soucek also mentions different versions of the map in various manuscript copies from different archives; the more inferior quality copies is in MS. Bağdat 337 in Topkapı Palace Library and in MS. Eb 389 in Staatsbibliothek, Dresden. The finest topographic views of Istanbul are from the Walters Art Gallery manuscript (MS. 658, folio 370b), the Khalili Portolan Atlas (folios 3b-4a) and the lost Berlin manuscript (Diez A, folio 57, BI. 28). The Berlin and Khalili copies are also seem so similar, almost identical, see, Soucek, *Piri Reis*, 133.

world in a more symbolic manner.[441] The image in the *Kitab-ı Bahriye* is correlated with the Ottomans' involvement to control over the maritime region when the naval campaigns started to consolidate their presence there.[442] Those campaigns were lasting from the second half of the sixteenth century onwards, seem to govern artistic productions. So that the initial examples of the Istanbul map appeared and, by the middle of the seventeenth century, during the period of campaigns, the view evolved into a detailed topographical map.[443]

The final stage of the cartographic image of Istanbul was published in London-718 (Fig. 36) and Berlin-57 (Fig. 37) manuscripts; these were more elaborate and complex exercises of the earlier represented versions.[444] In a much larger size, the capital appears a horizontal format in both manuscripts; the double-folio images invite a look at the Istanbul with the enlarged drawing scale enable to perceive many topographical details. These two versions are found quite identical and estimated as the consequent of the work of one person produced between 1670 and the early eighteenth century.[445]

In both manuscripts, Istanbul is in bird's eye-views which provide a viewpoint from the north. The Berlin version laid the city on a larger sheet and included Galata, Üsküdar, and Eyüp in the same composition along with the Red

[441] Orbay, "Istanbul Viewed," 161.

[442] Orbay gives background information about the Ottoman navy and the naval campaigns in 162.

[443] Ibid. For the detailed examination of theevery version of the map of Istanbul see also pages, 174-290.

[444] The Istanbul map is on the fols. 3v-4r of MS London-718 (cited by Orbay, "Istanbul Viewed," 119). The volume comprises 119 maps. For a detailed study of this volume, see Soucek (1996), 108. Also, the map is reproduced in, *Empire of the Sultans: Ottoman Art from the Collection of Nasser D. Khalili*, ed. By J.M. Rogers (London, 1996), 121, 124-25. Berlin-57 map is discussed and reproduced by Eugen Oberhummer, *Konstantinopel unter Sultan Suleiman dem Grossen : aufgenommen im Jahre 1559 durch Melchior Lorichs aus Flensburg, nach der Handzeichnung des Künstlers in der Universitäts-Bibliothek zu Leiden mit anderen alten Plänen* (München: Druck und Verlag von R. Oldenbourg, 1902), 22-3 and pl. 22. The manuscript is preserved in the the Staatsbibliothek zu Berlin-Preussischer Kulturbesitz (cited by Orbay, "Istanbul Viewed," 119). The library joined, since 1st January 1992, the collections divided between east and west German libraries after the war.

[445] Orbay, "Istanbul Viewed," 265.

Islands in the upper left corner. Considerably, the London copy of Istanbul map renders a small area; the Istanbul peninsula nearly fills the right half of the page. The three townships of the city are not in this picture, yet the Red Islands are still in the same position as in Berlin. The topographical depiction of Galata is on the separate page (Fig. 37); its triangular outlook is facing from the sought and, the overall configuration is a reminder of Matrakçı's representation of Galata in the Istanbul Map of *Mecmu'-I Menâzil*.[446]

In both versions of *Kitab-ı Bahriye,* depictions of Istanbul visualize the same uniform fabric houses within the triangular body of the peninsula. The size and shape of the walls and, the selection and the treatment of the principal features are the basic arguments demonstrating the affinity of two manuscripts. At the Marmara end of the land walls, the Yedikule Fortress, the Blachernae Palace located towards the Golden Horn end of the walls and the Topkapı Palace, the labeled *Saray-I 'âmire* (Imperial Palace) shown at the left corner of the peninsula with its cypress-decorated gardens are shared principal elements. The old Ottoman Imperial Palace, notable by surrounding high walls is beyond the Beyazıt Mosque, in the heart of the city, only shown in London-718.

The uniform residential texture in both manuscripts is punctuated with the larger scale of monumental mosques and other visible landmarks seen from the Golden Horn. Seven of the larger mosques are schematized by the central dome, small arcaded domes and two minarets in the London-718 manuscript. In the other version, the Istanbul map of Berlin-57 promises little distinctive features of those sultanic mosques such as the number of minarets and their balconies even though some of them drawn as side elevations. Nevertheless, the monumental mosques on both manuscripts emerged as more elaborate structures concerning the rest of the urban landscape. At the eastern end of the maps, the mosque of Sultan Selim, Fatih Mosque and Şehzade Mosque are identifiable. Then, the Süleymaniye, Beyazıt and Sultan Ahmed mosques are apparent; Yeni Cami (1663) stands towards the Topkapı

[446] Ibid, 266.

Palace, near the sea walls on the Golden Horn. The Hagia Sophia on the Byzantine acropolis and the Monastery of Studios with a saddle roof and a projecting apse at a proximate distance to Yedikule, attract attention as being the converted mosques with minarets.

One more notable feature of these maps is the Column of Arcadius which had marked the city since 402, at the center of the depiction. To the west of Hagia Sophia, the Column of Constantine is present only in London-718. These Byzantine monuments and the Aqueduct of Valens are all evident structures added to the topographic context of Istanbul. The Byzantine aqueduct is labeled *Eski Kemerler* (Old Arches) and depicted next to the Mosque of Mehmed II, in front of Şehzade Mosque by both of the versions of the map. Despite the schematic nature of the drawing of water structure as a bunch of arches, its accurate placement and connection to the close monuments show a strong sense of place regarding the aqueduct (Fig. 36.1). Moreover, the Berlin-57 manuscript reveals more careful depiction by adding a perceivable inclination to the drawing of arches; the valley between the third and the fourth hills, passed over by the aqueduct, is perceptible here (Fig. 37.1).

On the whole, the depictions of Istanbul in the manuscripts of *Kitab-ı Bahriye* are ranked as one of the most informative and accomplished Turkish views of the city drawn in the 16th and 17th centuries.[447] Both views did not represent the monumental Golden Horn front as a dominated northern cityscape; rather it was integrated into a broader landscape. Apart from the palaces and the Byzantine remains, the frequent disposition of mosques and minarets emphasizes the city's Islamic identity transforming the sixteenth century onwards. These developed topographic views are also considered as the product of a more specific function; they affirm the Ottoman affirmation of presence in the Mediterranean. Creation of the most exceptional representation of the capital for the seventeenth-century *Kitab-ı Bahriye* manuscripts epitomized "the Ottoman self-representation within the global

[447] Soucek, *Piri Reis*, 135.

view of the Mediterranean."[448] After all, the Byzantine aqueduct remained as an essential status in a more complete picture for both the Islamic city of Istanbul and the prominent capital city of the Ottoman Empire in the region.

4.2. Technical Projections of The Water Bridge

The waterway maps are among the state-sponsored architectural projects and were recorded by mostly a central group of royal architects (*hassa mimarları*).[449] Since the construction and the maintenance of these water distribution systems were the responsibility of the inspector of waterways (*sunazırı*) whose profession is architect, the illustrated diagrams of water supply systems for reporting purpose or personal use was drafted under his supervision.[450] Usually, those maps are in the form of long rolls showing the supply line from the origin of the spring through the central distribution pools to their final destinations inside the city.

The strategic role of the Aqueduct of Valens for promoting urban life was echoed in the Ottoman water supply maps. Most of these technical representations displayed entire water paths along with the technical structures such as aqueducts, sewers, domes, and water distribution pools. They are significant for not only providing technical specifications but also, their documentary values revealing hints about the architectural elements, topographical contexts, and the natural

[448] Orbay, "Istanbul Viewed," 292.

[449] Karamustafa, "Military, Administrative and Scholarly Maps," 215. On the waterways of Istanbul and their maps for the Ottoman periods, Kazım Çeçen has made comprehensive studies and published in a series of books; see, Kâzim Çeçen, *İstanbul'da Osmanlı Devrindeki Su Tesisleri*, (İstanbul: İstanbul Teknik Üniversitesi İnşaat Fakültesi, 1984); *Süleymaniye Suyollar,* (İstanbul: İstanbul Teknik Üniversitesi, İnşaat Fakültesi Matbaası, 1986); *Mimar Sinan Ve Kırkçeşme Tesisleri*, (İstanbul: T.C. İstanbul Büyük Şehir Belediyesi, 1988); *İstanbul'un Vakıf Sularından Halkalı Suları* (İstanbul: T.C. İstanbul Büyük Şehir Belediyesi, İstanbul Su ve Kanalizasyon İdaresi Genel Müdürlüğü, 1991); *II. Bayezid Suyolu Haritaları*, (İstanbul: İstanbul Büyükşehir Belediyesi İstanbul Su ve Kanalizasyon İdaresi, 1997); *İstanbul'Un Osmanlı dönemi Suyolları*, (İstanbul: İSKİ, 1999).

[450] Karamustafa, "Military, Administrative and Scholarly Maps," 215

environment.[451] Even though they were not intended to provide a complete and accurate representation of topography, the structures situated in close distance from the water lines and some of the major monuments are depicted in detail and supported with inscriptions. Most notably, the buildings on the distribution network such as mosque-complexes, some private residences and, the water structures; fountains, *hamams* and cisterns are situated in these maps.[452]

The Aqueduct of Valens is present in various water supply maps displaying intramural water distribution. In most of these technical documents, the body of the aqueduct is regularized and displayed in elevation. At first, the emergence of the aqueduct is dated to 1607, the Beylik Water Supply Map (Fig. 38). It is a representation of one of the Halkalı water networks which supplied the Imperial Palace. This graphic itinerary by the waterways inspector Hasan [453] does not offer any representational specialty more than being a graphic visual. The Byzantine Aqueduct is recognizable by the designation "At Pazarındaki büyük Kemer" (the big arch at At Pazarı) and, rendered as a straight, single-story row of arches. Any further information related to the architectural or topographical features of the Aqueduct is nonexistent.

On the other hand, the Köprülü and Beylik water supply maps produced in the 17th and the 18th centuries are more informative concerning the Byzantine heritage attached to the urban layout. The 17th century Köprülü Water Supply Map extends a whole but standardized city silhouette laid on two sides of the water line on its way for reaching the Köprülü Library and Medrese (Fig. 39). As one of the lines originating from the Halkalı Channels, it enters the city from Edirnekapı. The structures in relation with the water are visible in a cycle of monuments settled on the center of bifold elevation of the city. The Aqueduct of Valens was also displayed from elevation as two stylized bridges (Fig. 39.1). Its depiction and the inscriptions

[451] Semra Ögel, "Resim Olarak Su Yolları Haritaları," *Prof. Dr. Kazım Çeçen Anma Kitabı*, İstanbul, 1998, 93.

[452] Bilge Ar, "Osmanlı Dönemi Su Yolları Haritalarında Roma ve Bizans Yapıları," *Sanat Tarihi Defterleri* 13-14 (2010):15.

[453] Karamustafa, "Military, Administrative and Scholarly Maps," 216.

give specific information about the monument. The formed swamp on the collapsed section of the aqueduct after the great earthquake of 1509 was specified in the big gap with the inscription of "iki kemer arasında yatık yerdir" (the decumbent part in between the two bridges).[454] On the two wings of the bridge, "su terazileri" were depicted, and the water structure was inscribed; "At Pazarında olan Büyük Kemerdir" (The big arch at the Atpazarı). According to the two bodies of bridges, it was attracted the attention, yet the aqueduct is still regularized and shared the rendering of the same elevation with the Mazulkemer outside the walls. On the other hand, with regarding the monument status, the structures of the water distribution map such as the Mosque of Fatih, the Mihrimah Mosque, the Edirnekapı Gate, and the Column of Constantine, attract more attention with precise depictions and the rendered characteristics.

Another branch of Halkalı Channels is the Beylik Water Supply System in the service of the Topkapı Palace. The eighteenth-century version of the map of the water supply line only depicts the feeding structures laid on an empty urban space (Fig. 40). The enormous layout of the Topkapı Palace dominates the representation from the east corner. On the western end of the document, the Aqueduct distinctly occupied an ample space in contrast to many other edifices. With a realistic manner, the water bridge is apparent from elevation by providing detailed information; it's the water dome on the western end, the passing over water channel, its collapsed section and the topography the aqueduct settled on were clearly depicted (Fig. 40.1). The western part was defined as "At Pazarı'nda vaki kemer," (The big aqueduct situated in Atpazarı) the other part was labeled as "Bozdoğan Kemeri" and, the alcove in between these two parts was identified; "Büyük batak dedikleri mahal" (the pace so-called the big swamp). Under the Aqueduct, the notes are present about the water distribution points such as fountains, schools, and stores. The scale of the water structure emphasizes a greater significance; none of the monuments in the city were conspicuously depicted unless the imperial palace.

[454] Necipoğlu, "Virtual Archaeology," 320. The swamp is represented in the 1607 map of Halkalı Channel as "the big swamp" (*büyük Batak*): see, Çeçen, *Halkalı Suları*, 40.

The eighteenth-century Süleymaniye Water Supply Map is one of the rolls introducing a graphic representation regarding the aqueduct and other structures. The representation of the water network does not focus on the urban topography. Instead, it submits a technical delineation of technical specifications (Fig. 41). Nevertheless, the aqueduct is present with topographical elaboration; between the Third and the Fourth Hills, the two-story water bridge is shown in elevation. The labeling, “the Big Aqueduct on the At Pazarı” is the same with the previous waterway maps and, located in between the two distinct parts of arches. This separation represents the collapsed section of the aqueduct by briefing about its actual presence. In the case, there is insufficient knowledge about the relation of the aqueduct with the rest of the urban pattern. However, plentiful markings over the aqueduct indicating the distributed locations and the water domes are engraved in detail.

Even though this kind of map is specific for displaying the water supply system, it provides information about the architectural textures of the period as well. Most do not comprise a complete city layout, yet they still describe of the significant landmarks and water structures. In particular, multiple elevations of the Aqueduct of Valens are represented as embedded onto the urban topography of Ottoman Istanbul. With the set of technical documents, we have explored the continuation of the significant role of the water bridge for supplying the urban life in the city besides a taste of its monumental status emerged in the Ottoman period among many other structures.

CHAPTER 5

THE BYZANTINE BRIDGE ON THE SKYLINE

5.1. A Prelude to the Northern View of Istanbul: The Sixteenth-Century Panoramas

At the end of the eighteenth-century, the word, "panorama" originated from its Greek roots and, it defines "the sight, comprising the whole" which includes all the views by a circular sight.[455] This continuing urban view required a high observation point with a free horizon in order to scan the 360 degrees together.[456] However, there was a similar search for achieving a totalized image of a city long before the creation of the 360-degree constructed-panoramas. The gradually evolved profile city views, starting from the sixteenth century, by juxtaposing the partial views drawn from closer observation points are regarded as the initial form of panoramic compositions.[457] Conceptually, it combined the former techniques of graphic

[455] Namık Erkal, "Tam Zamanında Gözlerinizin Önünde: Londra Panoramalarında İstanbul Sergileri I," *Toplumsal Tarih* 170 (Şubat, 2008): 41. On the contemporary studies of the history of panoramas and visualization see, Stephan Oettermann, *The Panorama: History of a Mass Medium*, trans. Deborah Lucas Schneider (New York: Zone Books, 1997); Bernard Comment, *The Panorama* (London: Reaktion Books, 1999); Susan Buck-Morss, The *Dialectics of Seeing* (Cambridge: MIT Press, 1993); Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, Mass. and London: MIT Press, 1990).

[456] Lucia Nuti, ''Mapping Places: Chorography and Vision in the Renaissance,'' in *Mappings* ed. D. Cosgrove (London: Reaktion Books, 1999), 103.

[457] Nirit Ben-Aryeh Debby, "Crusade Propaganda in Word and Image in Early Modern Italy: Niccolò Guidalotto's Panorama of Constantinople (1662)," *Renaissance Quarterly* 67, no. 2 (2014): 507.

representation and, the perspective plan with the profile view. Therefore, a low oblique view was created by viewing directly from the side.[458]

In the visual imagery of Istanbul, there were a significant number of attempts scanned the city from the coast of Galata. Since the second half of the sixteenth century, the entourages of imperial ambassadors portrayed the recognizable profile of the city across the Golden Horn with the principal buildings, palaces, mosques, gardens, the crowded domes and slight minarets piercing the skyline.[459] In the following pages, nine of the created panoramic views of Istanbul in a time frame of two-hundred years, between the sixteenth and the eighteenth centuries will be analyzed in detail (Fig. 42). These are namely, the recognized panorama of Melchior Lorichs (1559) and an unknown profile view (1590) of the city from the sixteenth century, the panoramas of the Dutch engraver, Pieter van der Keere (1616) and Matthaus Merian (1635), the apocalyptic profile view of Istanbul by Niccolo Guidalotto (1662), the conspicuous views by Cornelis de Bruyn from 1698, Cornelius Loos from 1710 and Philipp Ferdinand von Gudenus from1740 and a pair of unique panoramic representations of the city dated the 18th century.

The perfection of the monumental outlook of the city, in the sixteenth century, shaped a representational front on the Golden Horn after the erection of sultanic mosque-complexes on the northern hills of the city.[460] Towards the Golden Horn, with the crucial shift in perception of the city, the monumental perspective-views and panoramas from different vantage points were started to create. The architectural landmarks with the help of the topography attracted the artist and, induced the permanent shift for the viewing of the Ottoman city. The earliest attempt for producing an extended profile view of the city is with Melchior Lorichs's 1559

[458] Woodward explains the used viewpoints in cartographic or landscape representations; one of them is a low-profile view or a panorama. See, David Woodward, "Cartography and the Renaissance: Continuity and Change" in The History of Cartography 3: Cartography in the European Renaissance ed. David Woodward (Chicago, London: The University of Chicago Press, 2007), 15.

[459] Nuti, "Mapping," 102.

[460] Orbay, "Istanbul Viewed," 27.

panoramic representation of Istanbul. This image was a significant trial for portraying the city accurately (Fig. 43). It is also approved as one of the initial vital graphic sources recording both the Byzantine and early Ottoman topography.[461] The panorama comprises twenty-one sheets, that makes 11.45 meters long and 45 centimeters high view, in order to show the whole urban vista viewed from the Galata. From *Üsküdar* and *Saray Burnu* to the Land Walls and the suburb of *Eyüp*, the drawing presents a continuous black and white image with titles of buildings and notes on the topography. Karl Wulzinger argues that Lorichs must have used multiple viewing points to provide the effect of the continuous panorama.[462] Mango suggested these points might have located in the high grounds surrounding the city.[463]

The creator of the panorama, Melchior Lorichs, was a young Danish nobleman employed by the ambassador of the Roman Empire to attend his entourage to Istanbul in 1555.[464] Sultan Süleyman II permitted him in order to prepare his view from the northern shore of the Golden Horn. Nonetheless, it is unclear whether the emperor or the ambassador commissioned the drawing.[465] In addition to this visual perspective document, the artist textually described Istanbul in his letters and his book, *Soldan Soleyman* (1974); he studied some urban sketches containing significant archaeological and historical information and, recorded

[461] Nigel Westbrook, Kenneth Rainsbury Dark, and Rene van Meeuwen, "Constructing Melchior Lorichs's Panorama of Constantinople," *Journal of the Society of Architectural Historians* 69, no. 1 (2010): 62.

[462] Karl Wulzinger, "Melchior Lorichs Ansicht von Konstantinopel als topographische Quelle," in *Theodor Menzel*, ed., Festschrift Georg Jacob (Leipzig: Harrassowitz, 1932), see map. Also see, Westbrook et all., "Melchior Lorichs's Panorama," 78-84 for the detailed reconstruction of the panoramic view.

[463] Cyril Mango and Stefanos Yerasimos, *Melchior Loricks' Panorama of Constantinople,* (İstanbul: Ertuğ and Kocabıyık, 1999), 3.

[464] Westbrook et.all., "Melchior Lorichs's Panorama," 64.

[465] Ibid.

Ottoman military, costumes, portraits, and monuments.[466] Lorichs studied both the Byzantine and Ottoman monuments in detail such as the base of the Obelisk of Thutmoses III in the Hippodrome and a carving detail of the Column of Arcadius. His close study to the architectural elements is regarded as best displayed in an image of the Süleymaniye Mosque-Complex. Besides his monumental panorama, the Süleymaniye image is accepted as verifiably convincing for its accuracy among the sixteenth-century representational works (Fig. 44).[467]

In the vastly sized image, under the farthermost left of the view, the genuine depiction of various eastern and western vessels, including the ceremonial barge of Süleyman II and the barge of Oiger Ghiselin de Busbecq (the ambassador of Roman Emperor in Vienna) illustrates the wealth and the dynamic maritime activity of the capital (Fig. 45).[468] Behind the vessels, the waterfront of the gardens and clusters of *Topkapı* Palace, the towers and domes are visible. Then, the massive structure of the great church of Hagia Sophia is depicted precisely in detail with some clues about its surroundings to the right of the imperial palace.

From the sheets, VII to IX, the artist situates "the center of the city" that was bordered with the Column of Constantine and the Mosque of Beyazıt. *Atik Ali Paşa* Mosque, *Elçihan*, and a synagogue are among the labeled structures; the pyramid-roof represents the mosque of *Atik* İbrahim Pasha.[469] On the intersection of sheets IX and X, the Old Palace; to the right of the palace, the whole mosque-complex of Sultan *Süleyman* is rendered with substantial accuracy. Then, the *Şehzade* Mosque is visible on the panorama on sheet XI. The overlapping part with the next sheet includes the long water bridge; one of the most elaborate depictions of

[466] The comprehensive mentions to the artist's studies in Ibid., 65-66. Lorichs woodcuts with the Turkish themes and his concentration to a set of illustrated books that would publish are also issued in Erik Fischer, Ernst Jonas Bencard, Mikael Bøgh Rasmussen, Marco Iuliano, *MelchiorLorck*, (Copenhagen: The Royal Library, 2009), 7-35.

[467] Westbrook et all., "Melchior Lorichs's Panorama," 67.

[468] Ibid., 69.

[469] Mango and Yerasimos, *Melchior*, 10.

the Aqueduct of Valens with its water tower (Fig. 46). The water structure stretches between the *Şehzade* and the *Fatih* Mosques and, appeared above the roofscapes, among the Column of Arcadius, *Yedikule*, the domes of the Pantocrator monastery and, the hilly area of St. Andrew. Before the Theodosian Land Walls, farther to the right, the *Selimiye* Mosque, built by Sultan Selim in 1522 is depicted and, labeled in Danish. Apart from the landmark buildings, Lorichs did not abstain from filling the composition with regular houses and roofs.

Most of the previous attempts for visualizing the Ottoman capital had not achieved the level of "truthfulness" as Lorichs's panoramic description. The sixteenth-century cartographic representations were generally recorded as a display of geographical progress; the map makers increasingly paid attention to the search of accuracy for their works and measuring the observed location of places.[470] The cartographic images were more accurate in their geography and more critically interpreted than those of the medieval map makers.[471] It was also suggested to be a short step for the acceptance of accurate maps before the creation of their abstract versions.[472] There are other significant urban representations of the sixteenth-century in terms of creating an entire outlook of a city and the giving a multitude of details. For instance, the Vavassore view of Istanbul presents a complete yet, idealized bird's-eye view of Istanbul with some elaboration of street layout and the urban fabric. Jacobo de' Barbari's great aerial view of Venice is also a preceding example from the beginning of the sixteenth century; the city is depicted from high in the sky and offered a vision of the total shape with the streets, the canals, and the landmark buildings.[473] However, both of the city views are idealized representations and,

[470] Schulz, "Jacopo De' Barbari's View," 462. Also see, Woodward, "Cartography and the Renaissance," 6.

[471] Schulz, "Jacopo De' Barbari's View," 454.

[472] Ibid.

[473] Hilary Ballon and David Friedman, "Portraying the City in early Modern Europe: Measurement, Representation, and Planning" in *Cartography in the European Renaissance.* Ed. By David Woodward, (Chicago: University of Chicago Press, 2007) 687.

among the latest productions of the medieval tradition of cartography. Lorichs's long-profile view of Istanbul seems free from presenting the explicit symbolism of the medieval maps at the first sight. His work is beyond a mere conventionalized image and more blended with the technical knowledge regarding the perspectival representation.[474] Nevertheless, the composition concerned with the natural observation introduces an allegory of encounter between the East and West with the representation of the self-portrait of the artist with a supporting "Turkish" figure. This diplomatic encounter sustains the attached significance of the image with the rendition of ambassadorial and Ottoman barges.

A further distinction of Lorichs's depiction with the earlier iconographic images of the city is the lack of a center and a pictorial incident dominating the view.[476]So that, the created panorama is suggested to document all the architectural elements of the mid-sixteenth century Istanbul in an indexical manner. Those are representing the figures in detail within the larger landscape of Istanbul. The total picture which consists of partial views does not suppressed the Turkish identity nor document the lasting Christian character.[478] However, this vast panorama represents an almost entirely Ottoman city relying on the topographical evidence.[479] The first-hand, sixteenth-century account of the ambassador Busbecq verified that in the many places, among the remarkable of ancient monuments, a few structures survived.[480]

There are still recognizable Byzantine architectural elements in this multi-layered urban topography. The Aqueduct of Valens is notably apparent as one of the

[474] Westbrook et. all., "Melchior Lorichs's Panorama," 68.

[476] Ibid., 77.

[478] Ibid.

[479] For detailed survey of the identification of the visible structures in the panorama, also see Mango and Yerasimos, *Melchior*.

[480] *The Turkish Letters of Ogier Ghiselin de Busbecq*, trans. Edward S. Foster (Oxford: Oxford University Press,1968) 36–37.

remaining and utilized Late Antique monuments of the Ottoman capital. On the adorned panorama of the city, among the multitude of structures, the water bridge is gently, ascending through the sky over the other structures, since the illustrator relied on the visible evidence from the observation points on the Galata (Fig. 46).[481] Even though the aqueduct covers an excessive linear space in the cityscape, its feeling is not massive as derived from fortifications; the perception of the bridge sustains a vertical structure with its highly arched body and slightly depicted piers. The location and the topography regarding the water bridge are proper; its reached hill is discernible from the shortened elevation of the arches, especially on the Forth Hill. For the second time after the Istanbul map of Vavassore, Lorichs illustrates the water tower on the left end of the Aqueduct. Nevertheless, this depiction is not compatible with the historic recordings and the illustrations of the water bridge on the technical maps since it did not represent the destroyed section of the structure during the Big Earthquake of 1509.[482] The water tower on this side was still present until the last big restoration of the aqueduct so that Lorichs's depiction of the aqueduct is standing on veracity.[483]

One of the contemporaries of Lorichs, the sixteenth-century traveler, Pierre Gilles, affirmed the inevitable visibility of the Byzantine Aqueduct on the northern heights of the Ottoman capital. The Aqueduct's linear position on the hilly terrain was recorded in the textual account of Gilles in almost the same way as the great panorama. He made a 'modern' description of Istanbul and the Byzantine structures in an "easy and comprehensive" manner. This portrayal of the hills is particularly similar to our understanding of the topography. He takes the Byzantine water bridge

[481] According to Wulzingers's analyisis, Lorichs's viewpoints direct some structures in the Galata. See, Wulzinger, "Melchior Lorichs,", 359.

[482] After the partly destruction of the aqueduct, the first restoration was made during the reign of Beyazıt, immediately after 1511 when the sultan made repairs in the Old Palace and ordered the water distribution for the Palace. See, Necipoğlu, "Virtual Archaeology," 320. The new diagonal form is apparent on the 1748 Beylik or Imperial Water Supply Map which is also so compatible with the real situation of the aqueduct. See, fig. 16.1.; also see Çeçen, *İstanbul'un Osmanlı Dönemi Su Yolları,* 31.

[483] Ibid.

which is elongating between the peaks, as an 'urban-scaler' and, he ranked the heights of the hills regarding the level of the Aqueduct.[484] As long as, the height of the water tower was pointed out as more than fifty feet, almost identical to the fifteen meters, the First Hill was discovered lower than the Third and the Fourth.[485] The given gaze falling on the northern ridges of the city specifies that Gilles's observation point was from the opposite side of the Golden Horn, somewhere on the upper levels of Galata. Soon after his remarks, from a similar viewpoint, the position and scale of the aqueduct along with its water tower were recorded by the panorama of Melchior Lorichs in the larger topographical and geographical context of Istanbul.

The overall representation of the Byzantine bridge in the panorama is matching the Lorichs's realistic style in contrast to the conventional mappings of Istanbul.[486] For the topographical animation of the early Byzantine structure and its broader context in the Ottoman capital, this unique document creates a valuable basis. Based on direct observation from the sixteenth-century Ottoman city, it exposes one of the most memorable illustrations of the Aqueduct of Valens within a landscape of everyday life except its massive arches which were depicted slenderer than they were.

Another image from the same century is an anonymous panorama of Istanbul dated to the end of the sixteenth century (1590) found in the Vienna Bibliothek (Fig. 47).[487] This second panorama recorded the city in three water-colored sections by an artist accompanying the ambassador of Austria-Habsburg. In

[484] See, Gilles, *The Antiquities,* 34

[485] Ibid.

[486] Westbrook et. all. mention about the comparison of the panorama with the earlier depictions by Buondelmonti and Vavassore and, confirmed the relative accuracy of the document by digital modelling. See, "Melchior Lorichs's Panorama," 82, 84.

[487] In *Sinan Çağı*, Necipoğlu mentiones this in the page 141. On the panorama see, Metin And, "16. yüzyıldan kalma bir İstanbul panoramasının düşündürdükleri ve «İstanbul Müzesi» kurulması," *Taha Toros Arşivi,* 114. http://earsiv.sehir.edu.tr:8080/xmlui/bitstream/handle/11498/3843/001582109010.pdf?sequence=3&isAllowed=y.

the first sheet, Istanbul is viewed from Galata. The second section depicted the suburb of Galata viewed from Istanbul and in the third section, Üsküdar and Calchedon are seen from afar (Fig. 48). The panoramic view is unique for rendering Galata and Üsküdar since the suburbs has been represented in a few visuals yet in none of the panoramas until this time.

The historical peninsula on the first sheet was recorded from *Sarayburnu* to the Blachernae Palace and the Land Walls. Apart from the monumental mosques, the Imperial Palace, the Old Palace, the residence of imperial ambassador (*Elçi Hanı*) and the Seven Towers of *Yedikule* are some visible Ottoman structures. Among the present Byzantine heritages, the artist depicted the Hagia Sophia and Hagia Eirene, the Column of Constantine, the Column of Arcadius and the fourth-century Aqueduct of Valens. In this colored depiction, the greenery texture in the general of the city and around the aqueduct is more apparent than those of the former depictions of the city (Fig. 49). In addition to this, the category of structures is distinguishable thanks to the use of color and, some recorded building materials. The residential structures were present with tile roofs, and the mosques and the public structures are apparent with lead-coated domes.

The presentation of the Valens Aqueduct is quite evident in the image. Its color is a tone of beige resembling the stone construction of the bridge. Moreover, the panorama depicts the geographical setting of the Aqueduct. The shortening arches on the two ends emphasized the valley it is passing over. With a close distance to the Aqueduct, on the opposite flanks, the Mosque of *Şehzade* and Mehmed II complete the image of the water bridge in the immediate environment. Behind the bridge, the Byzantine Column of Arcadius and a slight minaret along with the remaining urban landscape from the northern heights of the city are included in the view. The artist's elevated sight enables to track the southern shores of the capital as a silhouette afar. Thus, the image reveals one of the precise depictions of the Aqueduct; for the first time the water bridge was seen from the north with its background vista. This part of the panorama features more than a profile city view. It is rather significant for expressing a more veracious

composition than Lorichs's panoramic depiction which pictures the monuments together on the horizontal skyline of the capital. Nevertheless, both of the panoramic views produced in the sixteenth century revealed elaborated compositions depicting the northern elevation of Istanbul with striking realism. Thus, the recording of the Valens Aqueduct by these two initial panaromas of the city are also among the first compositions displaying the Byzantine structure and the pertaining landscape accurately.

5.2. Diversity in the Genre: The Seventeenth-Century Panoramic Presentations of Istanbul

At the beginning of the seventeenth century, the Ottoman Empire's point of view regarding the West was about the change; their diplomatic contacts had gained a new dimension. From now on, the Europeans took the opportunity to connect to Ottomans more directly and, explore "the Turks" by the first-hand relationships.[488] In the arts and literature, the outcome of these close encounters appeared and, an immense curiosity produced many of the painters and travelers who were encouraged for artistic explorations through the Ottoman Empire.[489] Georges de la Chapelle, Guillaume-Joseph Grelot, Cornelius de Bruyn, G. H. Van Essen were among these travelers as the seventeenth-century leading artists to Istanbul and, all of them depicted the capital city along with the local costumes.[490] The cultural and diplomatic contact also continued through the following centuries; the late 18th

[488] Aykut Gürçağlar, "Landscapes of Istanbul as An Imaginary Oriental City Through the Eyes of English Painters," *Ars&Humanitas* 5, 2 (2011): 144.

[489] Turkish historical books were also published in the same era; by the authors such as Baudier, Mazerai, du Verdier, Stochove, Chassepol, and Ricaut. See, Jale Parla, *Efendilik, Şarkiyatcılık, Kölelik* (İstanbul: İletişim Yayınları, 1985), 19. Rembrandt was also one of the representatives of the Orientalists, see Gürçağlar, "Landscapes of Istanbul," 144.

[490] Necla Arslan, Gravür ve Seyahatnamelerde İstanbul: 18. Yüzyıl Sonu ve 19. Yüzyıl (İstanbul: İstanbul Kültür Belediyesi Daire Başkanlığı Yayınları, 1992), 16.

century became the golden age for the engravings depicting the architectural heritages, landscape scenes and daily lives of Ottoman cities, especially Istanbul for its growing diplomatic and cultural importance.[491]

One of the large-scale panoramic views of Istanbul was created at the very beginning of this new period. With the title of *Constantinopolitanae Urbis Effigies Ad Vivum Expressa, Qvam Turcae Stampoldam Vocant*, the Dutch engraver Pieter van der Keere (Petrus Kerius) published his image in 1616. The artist placed his name with the date of the panorama, which also referred to the Golden Age of Dutch cartography on the right part of the view.[492] Van der Keere produced a group of prints considering the towns with their environments, city plans, world maps with continents and several of the immense city panoramas such as Köln, Amsterdam, Hamburg, Paris, Cologne, and Utrecht.[493] He is acknowledged as one of the prominent personalities on the stage of Dutch cartography and, has a significant influence on the attainment of the mapmaking in Amsterdam to the international status.[494] His vast panorama of Constantinople was created on four sheets, 392 by 212 centimeters in total and, the original print is at the National Library of Sweden (Fig. 50).[495] Nevertheless, the recordings about the process of the creation of the

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[491] Gürçağlar, "Landscapes of Istanbul," 5; A group of 18th century artists like Van Mour, Liotard, Carrey, de Favray, Hilair, Mayer and Melling who were employed by European embassies, called "The Bosphorus Painters", see Auguste Boppe, Les Peintres du Bosphore au Dix-Huitième Siecle (Paris: Librarie Hachette, 1911). On the exotic albüms created in the 18th century, see Zeynep İnankur and Semra Germaner, Oryantalizm ve Türkiye (İstanbul: Türk Kültürüne Hizmet Vakfı Sanat Yayınları, 1989), 18-19.

[492] Keuning, Johannes, "Pieter Van Den Keere (Petrus Kaerius), 1571-1646 *(?)," Imago Mundi* 15 (1960): 66.

[493] For the full list of his cartographical works and details see, Keuning (1960).

[494] Schilder, Günter, "Willem Jansz. Blaeu's Wall Map of the World, on Mercator's Projection, 1606-07 and Its Influence," *Imago Mundi* 31 (1979): 36.

[495] The print is in the Magnus Gabriel de la Gardie Collection, Shelfmark: KoB DelaG 169(cited by Keuning, 66). For the exhausting catalog see, Isak Collijn, "Magnus Gabriel de la Gardie's samling af äldre stadsvyer och historiska planscher i Kungl. Biblioteket," *Kungliga Bibliotekets Handlingar*, Band 35 (1919), 60-61. See also, Franz Babinger "Zwe, Stambuler Gesamtansichten aus den Jahren 1616 und 1642," Beyerische Akademie der Wissenschaften. Philosophisch-Historische Klasse. Abhandlungen, Neue Folge, Heft 50 (München, 1960), 3-16.

view and the artist's staying in İstanbul are insufficient as no primary source or document available to scholars.

This giant panorama of the Dutch artist includes a detailed textual description which is written in Latin. The text written at the bottom of the sheet records the architectural ruins erected in both the Byzantine and Ottoman periods.[496] A portrait of Emperor Constantine and the Sultan Mehmed II are also present on the two ends. The extreme left displays the shores of *Üsküdar* as an urbanized town with the title of "*Scutaret."* Then on the right side of the suburb, the Maiden's Tower and the five islands on the background are also visible with the labeling. This part of Istanbul is marked as "Asia." On the left bottom of the panorama stood, the southern edge of the Galata and on the right bottom, the rural landscape of Istanbul was represented in detail.

The *Sarayburnu* and the imperial *Topkapı* Palace, "*Sarayum Imperatoris Turcici*" seem quite similar with Lorichs's depiction yet, the sixteenth-century panorama is more elaborated concerning the depiction of the components of the palace-complex.[497] On the right side, one can identify Hagia Sophia with three minarets and the Hagia Eirene. In the first sheet, there are also a significant number of monuments such as the Boukeleon which has the labeling of "Turris" and the Palace of Sinan Paşa highlighted by its inscription on the skyline.

The second sheet starts with one of the apparent monuments in almost every map, the Çemberlitaş, the Column of Constantine is next to the Atik Ali Paşa Mosque then, the sultanic mosques, Bayezit, Süleymaniye, Mehmet and Selim in order, pervade on the hilly urban topography. Even though some of the markings of the mosques seem incorrect,[498] many other labeled structures are correctly recorded

[496] Rüstem, Duyuran, "17nci Yüzyılın Başlarına ait bir İstanbul Panoraması," *TürkiyeTuring ve Otomobil KurumuBelleteni* (1949): 19.

[497] Duyuran states that the depiction of the Çinili Köşk is morecorrect in the Lorichs's panorama. Ibid.

[498] The Atik Ali Paşa Mosque is labelled as the Beyazıt Mosque; the Beyazıt is also labelled as Mehmed Mosque which is corresponded the Şehzade Mehmed's complex. With regarding to the

in the urban topography of seventeenth-century capital; the Old Palace, the Graecorum Partiarche, the Church of St. George and the Column of Arcadius.

In the composition, the Byzantine Aqueduct is located almost at the center; it reaches over the combining part of the second and the third sheets (Fig. 50.1). After the countless of Istanbul representations indicating the positioning of the water bridge, the fundamental body of the Aqueduct correctly recorded as occupying the valley in between the Third and the Fourth Hills. It is a long and slender bridge of one-story arches and, briefly marked as "*Aqueductus*." Behind the aqueduct, the Column of Arcadius and a nameless mosque dome and minaret is visible. On the left end of the Aqueduct, the artist located the slender towers which belong to the *Şehzade* Mosque with an inaccurate marking of "Sultani Machometi." He was indicating the marking of the *Şehzade* Mosque on a further mosque before the *Süleymaniye* complex which should be the *Beyazıt* Mosque. Neither the water tower of the Aqueduct nor the ruined left section of the structure is visible; further information about the condition of the aqueduct lacks on the view.

As analyzed by Rüstem Duyuran, several topographical mistakes are perceptible when examining the panorama. The Byzantine Palace of Blachernae was marked yet not represented, the path of the Land Walls is not compatible with the actual position, and some of the shorelines of the Golden Horn seem misrepresented on some of the Gates.[499] Based on these shortcomings, the inspector of the panorama argues that Van der Keere most probably did not visit Istanbul; his large-scale panorama has basic mistakes, and it is far from giving elaborate details about the urban topography. In the overall composition, some characteristics of Ottoman architecture, the mosques and minarets were depicted with little resemblance to the actual buildings. In that respect, this work is not comparable with the sixteenth-century conspicuous panoramas displaying veracious images to a considerable

location, the artist has been mistaken. For the discussion of each monument on the panorama see Ibid., 19-23.

[499] Ibid., 23.

extent. However, it is still significant for exposing the general character of the city. The slight depiction of the aqueduct with its long piers seems a repetition of the sixteenth-century panoramic views. In the total view, the panorama of Van der Keere indicates the aqueduct as one of the inherent structures in the seventeenth century Istanbul -not only as of the Byzantine water-conveyer of the city but also a visually appealing bridge elevated on the monumental waterfront.

Shortly after Van der Keere's image, a contemporaneous Swiss printmaker and publisher, Matthaus Merian the Elder (1593-1650) produced another seventeenth-century panoramic view of Istanbul (Fig. 51).[500] He is proliferated as an extraordinarily successful and trained engraver. A high number of urban representations, namely the view of Basel, the biblical scenes and the Seasons are among his early career works. The artist was also a book illustrator and publisher with his flourishing publishing house in Frankfurt. Within the scope of his studies, he conducted a substantial project for visualizing a very old-fashioned world history.[501] Merian had significant attempts for the visual studies; he created the series of topographical volumes such as illustrated gazetteers for European countries as well.[502] His production of a wide array of engravings of multiple subjects ranging from the city views, plans, emblems, and hunting views are qualified records. An excessive amount of Matthaus Merian's works, as well as his concise biography with several descriptions, are published by Lucas Wüthrich.[503] However, a particular study is lacking regarding his İstanbul panorama.

The panorama of Matthaus Merian, is known as the image of *Constantinopolitanae urbis effigies ad vivum expressa, quam Turcae Stampoldam*

[500] Matthaus Merian, *Neuwe Archontologia Cosmica, das ist Beschreibung aller Kayserthumben, Königreichen und Republicken der gantzen Welt* (Frankfurt, W. Hoffmans, 1638).

[501] David Paisey, "Matthaeus Merian," *Print Quarterly* 12, no. 1 (1995): 83.

[502] Ibid., 84.

[503] On the bibliographical information see, Lucas Heinrich Wütrich, *Matthaus Merian D.A.: Eine Biographie von Lucas Heinrich Wüthrich* (Hamburg: Hoffman und Campe, 2007).

vocant. AÂ° MDCXXXV viewed the intra-mural area from a high spot on the Galata. After the multiple representations of the northern outlook of the city, the ridges of Galata remained as a permanent place for looking at the Ottoman capital. Nevertheless, this early seventeenth-century panoramic view further employed Galata in the composition. Merian spared a remarkable space for this suburb and placed it in the foreground with a closer and detailed depiction. A kind of a more intimate and local scenery is visible on this side of the Golden Horn, the artist's vast panoramic vista included tiny human figures in their everyday activities.[504] On the opposite side, the horizontal body of the historical peninsula is apparent alongside the water. The masses on the hills of the topography are exaggerated; the sultanic mosques and the bulbous-domed Hagia Sophia pervade through the whole skyline. Furthermore, the vertical structures such as honorific columns, the towers, and minarets seem abnormal due to their extended height through the sky. The location and markings of most of the visible elements comprising the seventeenth-century landscape are accurate except the missing portrait of the Mosque of Sultan Ahmed (1616). Most likely, the artist created his panorama based on a previous image of Istanbul which was published before the erection of the mosque-complex.[505]

Among the Byzantine structures, the Hippodrome, the imperial columns, the Blachernae Palace on the Land Walls and the Aqueduct of Valens are visible in the intra-mural area. The Aqueduct here seems compressed between the giant mosques of Şehzade and Mehmed II (Fig. 51.1). Behind the water bridge, the exaggerated height of the Byzantine column of Arcadius suppressed the body of the Aqueduct. The Byzantine structure is not the most favorite configuration on the view since it was relatively small among the overwhelming structures. In such a vast

[504] His landscape depictions included man. See, Susan Donahue Kuretsky, "The Face in the Landscape: A Puzzling Print by Matthäus Merian the Elder," In *In His Milieu: Essays on Netherlandish Art in Memory of John Michael Montias,* edited by Golahny A., Mochizuki M.M., and Vergara L. (Amsterdam: Amsterdam University Press, 2006), 221.

[505] Eyice is confirmed that the publisher copied this view as well as many of the fictitious panorama of İstanbul published during the 18th century. See, Semavi Eyice, "XVIII. Yüzyılda İstanbul'da İsveçli Cornelius Loos veİstanbul Resimleri (1710'da İstanbul)," in *18. Yüzyılda Osmanlı Kültür Ortamı* (Sanat Tarihi Derneği Yayınarı, 1997), 93.

panorama, this tiny bridge has not much significance among the monumental mosques. Nevertheless, it was acknowledged as a prominent feature of the multi-focal seventeenth-century vista by marking with the number 10 among the twenty-nine structures recorded at the bottom of the page. The previous numbers, starting from *Sarayburnu* indicate the most prominent places and figures such as the Topkapı Palace, the Hippodrome, the Hagia Sophia, the Mosques of Bayezid, Süleymaniye and Şehzade without considering the sequence on the skyline.

Along with the Van der Keere's large side view, the early seventeenth-century panorama of Merian is an imaginary composition far from displaying specific knowledge on the urban fabric concerning its period. Both of the images seem among the vast number of visual products as a result of the marked interest in the cultural studies after the cartographic Renaissance of sixteenth and seventeenth centuries.[506] They have a single contribution by reporting the presence of the Valens Aqueduct in the Ottoman capital with an indexical manner. Especially in the Merian's panorama, it is represented as a generic bridge with merely specific information regarding the architecture and its surroundings. As long as the artist did not visit Istanbul and had not an experience of observing the aqueduct in the northern profile of the city, he misrepresented the scale of the aqueduct concerning the monumental column behind it. Later in the eighteenth century, this sort of panorama was duplicated. The panoramic view of Merian was re-published by Georg Matthaus Setter together with a version of Vavassore's bird's-eye view.[507] For this time, he re-arranged the panorama in a fictitious way and removed the display of the slight body of the Valens Aqueduct from the view (Fig. 52).

[506] Woodward mentions about the cartographic Renaissance during the sixteenth and seventeenth centuries. See, Woodward, "Cartography and the Renaissance," 6-7.

[507] It is directed that Seutter reproduced the map based on his master's 1730 panorama. Yet, obviously the master, J. B. Homann derived the 17th century view of Merian. For the aforesaid map see, Ayşe Yetişkin Kubilay, *Maps of Istanbul: 1422-1922* (İstanbul: Denizler Kitabevi, 2009), 86.

In 1662, the Venetian friar Niccolo Guidalotto produced another unique seventeenth-century panorama of Constantinople (Fig. 53).[508] After the completion of this 6.12 by 2.58 meters work, the artist presented it to Pope Alexander VII(1665-1667) with the intention of the anti-Ottoman Crusade dissemination in early modern Italy.[509] Guidalotto reported his reasons for embarking this project as the ill-treatment of foreign diplomats during the Turkish attack on Crete and, his own experience of imprisonment.[510] In fact, the notion of Crusade had been rooted for a long period, and many of the ecclesiastics supported crusading efforts. Thus, there were some devoted movements for improving these efforts by developing the various types of artworks such as paintings, drawings, sculptures, and decorated maps.[511] Among the Italians, the generated crusading interest proliferated after the Fall of Constantinople in order to return the city of Istanbul to the Christian rule.[512] So, the visual representation of the city was published with an exceptional mission among the contemporary city views as a decorated panoramic view invoking the anti-Ottoman propaganda.[513] In the context of Ottoman and Venetian confrontation during the early modern period, this iconographical Istanbul panorama combined with explanations about the ongoing enmity from Guidalotto's manuscript.[514] His

[508] Niccolo Guidalotto da Mondavio, *Parafrasi di Opera a Penna Rappresentante in Dissegno un Prospetto dell'Imperiale Citta di Constantinopoli,* Biblioteca Apostolica Vaticana (BAV), MS Chig. D. II, 22, fols. 1r–70r. Pesaro, 1622 (cited by Ben-Aryeh Debby, 504). The panorama is first discovered in the Chigi archive in Rome in the 1960s, it was sold in the early 1990s to a private owner. Then, it was subsequently lent to the Vatican Library.

[509] The full name of the panorama is *A Panorama of Constantinople, Dedicated to Pope Alexander VII and Leopold Ignatio I.* See also, Ben-Aryeh Debby, "Crusade Propaganda," 505.

[510] Guidalotto da Mondavio, fols. 2r-3v.

[511] On the organizing of crusade and crusader sentiments see, Benjamin Z. Kedar, *Crusade and Mission: European Approaches toward the Muslims* (Princeton, 1985); Daniel Randolph, *The Franciscan Concept of Mission in the High Middle Ages* (Lexington, 1975); John Victor Tolan, *Medieval Christian Perceptions of Islam* (New York, 1996).

[512] Ben-Aryeh Debby, "Crusade Propaganda," 507.

[513] Ibid., 503.

[514] Guidalotto's manuscript is entitled *Parafrasi di Opera a Penna Rappresentante in Dissegno un Prospetto dell'Imperiale Citta di Constantinopoli*. For the historical background of the artist and the panorama see, Ben-Aryeh Debby, "Crusade Propaganda," 510-19. On the Venetian and Ottoman History, see Fenlon; Fleet, Faroqhi, and Kasaba; Fleischer; Green; Martin and Romano;

text is both a theological discussion and an overall description of the panorama with some planning parts of the painting.[515] He already presents himself as a theologian in the opening part of the manuscript so that his work is as a theological treatise along with the practical information on the panorama of Istanbul which is interpreted in the first twenty folios.[516]

Guidalotto's panorama points out a quite different set of rules rather than a representation of the urban texture. It is parallel with the idea that; mapping is a total outcome of the political and cultural construction instead of mere displays of the topographical content.[517] This power and political expression are transparent in the seventeenth-century panorama; the Ottoman capital is in between the sky and water, both of the expanses are declaiming apocalyptic texts by the crowds of the array of angels and tritons. On the other hand, the visual displayed one key feature of the seventeenth-century panoramas, representation of art, and artistry through the image. Guidalotto substantially decorated the framing of the image with fluted columns and Baroque and Rococo including the fruit pendants, mythical males and females and horses.[518]

Within the complex artistic and theological work, the illustration displayed the cityscape of Istanbul by a small area in the panorama. The remaining part of the composition expresses elaborate allegorical decorations and emblems denoting political and religious supremacy.[519] At the center of the illustration, on the

Norwich; Pedani; Preto; Rothman, 2012; Viallon. For Ottoman history, see Faroqhi; Imber; Itzkowitz; Kafadar; Wheatcroft.

[515] Guidalotto da Mondavio, fol. 1r and 12r.

[516] Ibid.

[517] Harley mentions that all the maps are social and cultural constructions rather than being the scientific productions in the chapter "Deconstructing the Map". See, Harley, *The New Nature of Maps*, 156.

[518] Ben-Aryeh Debby, "Crusade Propaganda," 508.

[519] For a detailed inspection of the image along with the manuscript see, ibid., 520-526.

upper frieze, the dedication to the Pope is placed; the depictions God the Father and the archangel Michael are centered at the same time. The explanation of figures is present in the manuscript, including the Christian virtues of Justice, Strength, Faith, Charity, Love of God, and Prudence as mythological figures symbolizing Italy and victorious Rome.[520] On the sky above the city, the vignettes of the seven Eastern churches are visible; the sea included the allegorical emblems as well. The artist, in the description part of the manuscript, called the city "Babylon of our times" which is an allusion of the corrupted and destroyed nature of the city after the Ottomans transformed the city from the New Rome to the New Babylon.[521] Another part of the manuscript completed the description of the panorama with a theological oration focusing on the Christian victory over the Ottomans.[522]

The panorama is also an artistic production which is parallel with the recent creations of the city-views. After a sequence of the views of Istanbul, Guidalotto's work aims to achieve a level of accuracy and pay attention to some details. His central emphasis is the particular monuments evoking the Christian rule in the city. The artist designed the panorama based on the eyewitness observations by using his rough pen and, from the viewpoint of Galata as it was noted in the manuscript.[523] The accurate captions and precise location of the major monuments were given in the view, including the neighborhoods, markets, mosques, and palaces.[524] Guidalotto added three sultanic mosques that dominate the skyline; Süleymaniye, Sultanahmet, and Bayezit are clearly visible over the structures. A major discern of Hagia Sophia is also here apparent in its new status as a mosque yet it was marked by the Latin name, *Sancta* Sophia.[525] On the ancient acropolis of

[520] Ibid., 521. Guidalotto da Mondavio, fol. 9v./*u

[521] Ibid., fol. 1r, 2r-4v and 12r.

[522] Ibid., fols 21r-69v.

[523] Ibid., fols., 25r-26v.

[524] Ben-Aryeh Debby, "Crusade Propaganda," 534.

[525] Ibid.

Byzantium, the Topkapı Palace is apparent with the labeling of "*II Seraglio Byzantium*" (the Byzantine Palace) without any reference to the Ottoman imperial Palace which is one of the primary structures in almost every view of the city in order to indicate the Ottoman rulership.

The remaining Byzantine buildings of the seventeenth-century Ottoman capital are imaged and emphasized in the captions by the artist. Apart from the Hagia Sophia, the Aqueduct of Valens is visible in this unusual panorama. The Byzantine water bridge appears in almost the center of the composition with the marking of "Aqueduct." Its depiction is quite accurate with the two tiers of arches inscribed in detail even though the monument was rendered as a small body from afar (Fig. 54). The artist's precise attention to the current condition of the structure is readable by the ruined section of the water bridge that was visually recorded by some of the Ottoman waterway maps.

Guidalotto has released the elongated water bridge in his elaborately produced panorama in the same way of all the previous panoramic images of the city looking across the Golden Horn. However, he is not an occasional visitor to the Ottoman capital but a resident of the city for eight years who had first-hand knowledge of the social and urban contexts of Istanbul.[526] The involvement of the friar's internal and external politics as part of the Venetian embassy and, his utopian appeal calling for the Christian unification against the Muslims correspond to his apocalyptic panorama.[527] On this extreme context intending to emphasize the Christian power, the displaying of the few surviving Byzantine monuments including the fourth-century Aqueduct of Valens is not unexpected. The precise depiction and the marking of the water structure are also parallel with the artist's primacy in the illustration. On the other hand, the particular context of the overall

[526] Ibid. 537.

[527] Debby extensively clarifies his appeals for the unification of Christian powers and the motive of his panorama for achieving some practical results. See, ibid., 536-538.

panorama and the depicted figures and ornaments distinguish it from the seventeenth-century productions and the former -century realistic panoramic views.

5.3. The Eighteenth-Century Panoramas in Search of Accuracy

At the end of the seventeenth century, the traveler,[528] Cornelis de Bruyn made a six-years trip on the various cities of the Ottoman Empire including İzmir, Antakya, Cyprus, Beirut, Aleppo, and İstanbul. A number of his engravings were published in addition to his travel book, *Reizen van Cornelis de Bruyn, door de vermaardste Deelen van Klein Azië* in 1698.[529] After the publishing, the book aroused interest among a mass of people; it was translated into French and English and, re-published in Paris and London at the very beginning of the 18th century.[530] In this travel book, he recorded the most detailed investigations for the capital city. The traveler's textual description of Constantinople starts with a compliment of the natural situation which the city appears from outside of the world almost in a more beautiful situation than Heaven.[531] After the trips through the Bosporus, the artist was quite excited that conveyed his impressions on the nature and beauty of the city by lyrical statements.[532] However, the objectives of his observations are based on learning, comprehension, and intelligence collection. Hence, he was interested in the social

[528] On the description of the relations between the Ottoman Empire and the Netherlands see, Himmet Umunç, "Türkiye'de Hollandalı bir Seyyah: Cornelis De Bruyn ve Gözlemleri," *Belleten* 73., 226 (2009), 147-154. See also, Jonathan Israel, *TheDutch Republic: Its Rise, Greatness, and Fall 1477-1806* (Oxford: Clarendon Press, 1995) especially pages 179-1121.

[529] Umunç, "Cornelis De Bruyn," 146.

[530] Ibid.

[531] Cornelis de Bruyn, *Voyages de Corneille le Bruyn au Levant* (La Haye: P. Gosse & J. Neaulme, 1731), 121.

[532] Umunç, "Cornelis De Bruyn," 160.

and political life, customs and religion, commercial relations, laws, costumes and so on apart from producing an elaborate recording of the Ottoman capital.[533]

The engraving of De Bruyn was first published in 1698; then, it was reproduced several times (Fig. 55).[534] He removed the foreground fantastical Galata depiction which is occupied by many of the former panoramas and, broadened the Golden Horn on the sheet where the vessels and ships are floating on. The rest of the view seems realistic in depicting the monumental front of the historical peninsula.[535] From Sarayburnu with the Topkapı complex to the Land Walls, the view only represents the urban topography. He depicted none of the suburbs of Galata and Eyüp, yet the cape of Üsküdar with the Üsküdar Palace is present on this panoramic view. All the sultanic mosques of the 17th century with the Valide and Ali Paşa Mosques are displayed and marked in the information sheet. With regarding the Byzantine monuments, the recognizable honorific columns are lacking in the view even though one of them inscribed in the list with number four, it is difficult to be identified. The Hagia Eirene is displayed but not marked with labeling, and the Hippodrome is inscribed as "*AtPazarı*."

The Aqueduct of Valens is visible over the roofs; its long body of arches continuing up to the Fatih Mosque was depicted by the artist (Fig. 55.1). Next to the minarets of Şehzade Mosque, on the opposite end of the bridge, the ruined section is appreciable. However, the view of the mosque is obstructed by the structures; thus, the water bridge on the skyline is perceived in between the Mosques of Süleymaniye and Fatih. The position of the Aqueduct is compatible with Bruyn's travel book in which he described the location of the "great aqueduct" as it was near the Süleymaniye.[536] In the panorama, a tower-like structure was depicted, yet it lacks a

[533] Ibid., 161. Also see De Bruyn *Voyages*.

[534] Eyice, "Cornelius Loos ve İstanbul Resimleri," 94. One of the reproductions of the panorama was published by Netherlands Institute in Turkey see, *Cornelius De Bruyn'ün Yakın-Doğu Gezisi – Le Voyage au Levant de Cornelius de Bruyn,* İstanbul, 1974. Pages 10-11, figures 22 A and 23.

[535] Eyice "Cornelius Loos ve İstanbul Resimleri," 94.

[536] De Bruyn, *Voyages*, 208.

precise expression or information about its relation to the Aqueduct. The Valens Aqueduct drawn by de Bruyn discloses perceptible horizontality not between the two hills but as marking on the sky. In overall, it conveys a scaled and realistic image from the end of the seventeenth century.

Following Bruyn's panorama, a very early 18th-century recording of the Ottoman capital is belonged to another traveler and also a Swedish officer to the empire. Cornelius Loos, by the motivation of Swedish King Karl XII, first visited Istanbul for six weeks in 1710 then, traveled to the West Anatolia, some Aegean Islands, Alexandria, Palestine and certain cities in the Central Anatolia.[537] After Loos returned the "Eastern" trip, he brought approximately three hundreds of sketches displaying the various architectural structures and views he witnessed during the journey.

His Istanbul panorama is quite similar in the organization to the De Bruyn's view as depicting the city across the Golden without including the suburb of Galata (Fig. 56).[538] The Topkapı Palace-Complex is elaborately inscribed with the display of kiosks and clusters as well as the markings.[539] The precise description of the artist is tangible through the rest of the view. Loos represented the monumental buildings including the Mihrimah Sultan Mosque (1570) on the Edirnekapı, the New Mosque (1665) on the shores of Golden Horn, the Hagia Sophia with the church of Hagia Eirene, the converted Fethiye Mosque (the monastery of Pammakaristos until the end of the 16th century). As well as the Column of Constantine, the Blachernae Palace an many other structures inscribed in detail with the surroundings.

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[537] Eyice, "Cornelius Loos ve İstanbul Resimleri," 96.

[538] The catalog of the panorama is Alfred Westholm, *Cornelius Loos, Teckningar Fran en expedition till Framre Orienten 1710-1711*, (Stockholm: National museums Skiftserie, N.S. 6) 1985. Part of the panorama is placed in on the cover of the annual by the Swedish Institute of Istanbul in 1976. For contemporaneous source on this panorama and its printings see, Karin Adahl, Cornelius Loos: In The Ottoman Drawings for The King of Sweden 1710-1711 (Istanbul: Swedish Research Institute in Istanbul, 2019).

[539] See, Eyice, "Cornelius Loos ve İstanbul Resimleri," for the examination on the panorama in 99-111.

Between the Third and the Fourth Hills, the Byzantine water bridge is crossing over the valley and, establishing the horizon in between the two slopes (Fig. 57). The Valens Aqueduct is pointed out with the inscription of "*Sou kemerler*." Next to the bridge, the Şehzade Mosque is represented by its marked minarets. Even though this section of the Aqueduct is broken down, its upper arches extended until the blocking the visibility of the mosque as if the second-story rows survived in the eighteenth century. To the left of the Şehzade Mosque, the great Mosque-complex of Süleymaniye seen on the upward lot. On the opposite end of the Aqueduct, the artist inscribed the quarters of the Fatih Mosque-Compex, the *imarethane* and *darüşşifa*. One more water structure is apparent on the panoramic view. The water tower near the Hagia Sophia is inscribed as "*Sou Terasi*" on the image which was also illustrated in another eighteenth-century visual, in the 1748 Map of Beylik Water Supply System (Fig. 58).

After experiencing various panoramic compositions of the Ottoman capital with a wide range of contexts from the imaginary landscapes of the early-seventeenth century profiles to the military propaganda, Loos's eighteenth-century visual is parallel with another precise composition of the city by De Bruyn. With comprehensive detail, his multiple views as close scanning of every part of the peninsula are significant for clearing up the urban program of 18th century Istanbul as well as exhibiting the Byzantine Aqueduct with the close surroundings. The documentary value of the conspicuous panorama is clear since it has been used for a record of the contemporary buildings by various scholars.[540] Even so, the depiction of the aqueduct does not achieve the sense of reality given in De Bruyn's rendition.

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[540] The part of the panorama showing the Topkapı Palace was published in Sedad Hakkı Eldem and Feridun Akozan, *Topkapı Sarayı*, (İstanbul, 1982). Tanju Çantay used another section of a reproduction of the view showing the Süleymaniye Mosque, see Tanju Çantay, *XVI-XVII. Yüzyıllarda Süleymaniye Camii ve Bağlı Yapıları* (İstanbul, 1989). For the former Byzantine church known as Arslanhane, Cyri Mango benefited from the original publications of Loos's view see, Cyril Mango, The Brazen House, A Study of the Vestibule of the Imperial Paace of Constantinople (Copenhagen, 1969). Also, Tülay Artan investigated various panoramas including Loos's composition in her chapter, see, Tülay Artan, "Alay Köşkü Yakınlarında Babıali'nin Oluşumu ve Süleymaniye'de bir Sadrazam Sarayı," in *Bir Allame-I Cihan: Stefanos Yerasimos (1942-2005) Anısına*, ed. Edhem Eldem, Aksel Tibet, Ersu Pekin (İstanbul: Kitap Yayınevi, 2012), 73-140.

The water bridge in Loos's composition is a more schematic structure showing in an accurate position.

A well-recognized Istanbul panorama dating from the mid-eighteenth century takes part inside the collections of the Swedish Royal Library. Comprising of ten folios laid on 3.74 by 0.3 meters, the vast view renders the walled capital city starting from the Asian shore of Üsküdar to the rural topography of Istanbul beyond the Land Walls (Fig. 59).[541] It has been attributed to the Secretary of Austria, Philipp Ferdinand von Gudenus who gazed the city from the Swedish Embassy in Galata in 1740.[542] He prepared a compendium with the notes attached under the sheets and, the dedicated the great view "to all patrons and lovers of the liberal arts and literature."[543]

The scope of the vastly sized panorama is broader than all the profile depictions we have seen so far. From the shores of the *Dolmabahçe* on the left end, the artist inscribed the area until the *Okmeydanı* and St. Demetrius, the Greek village on the extreme right. In between these two districts, the crowded neighborhoods of Galata seen in the foreground. The historical peninsula is somehow obstructed behind the roofs of Galata yet represented on a single continuous sheet as a whole. This is an outcome of the circular image plotted from the only viewpoint yet it rather directs the distinctive feature of the panorama of Gudenus. The artist conveyed the scene just as he saw; he did not adapt the visible in order to show the information. To this end, the artist eliminates some parts of the shores of the Golden Horn; the

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[541] The panorama is available at goran.baarnhielm.net/lslam/Gudenus/Englgudenusinfo.htm.

[542] Westbrook et.all., "Constructing the Image," 77.; Auguste Boppe, *Les peintres du Bosphore au XVIII*, (Paris: Siecle, 1911), 213. On Baron de Gudenus see, Ekmeleddin İhsanoğlu, *Osmanlılar ve Batı Teknolojisi: Yeni Araştırmalar, Yeni Görüşler*, (İstanbul:İstanbul Üniversitesi Edebiyat Fakültesi Basımevi, 1992), 59; Semra Germaner and Zeynep İnankur, *Oryantalistlerin İstanbul'u*, (Türkiye İş Bankası Kültür Yayınları: 78, 2002), 28; Günsel Renda, "İsveç'te Türkler'le İlgili Eserler II: İsveç Kraliyet Kitaplığı," Kültür ve Sanat Dergisi 5 (1990): 19-25. The authorship of the panorama also seems controversial; The Royal Library identified him as the German baron Philipp Ferdinand von Gudenus yet, the view is referred to the Phiipp Franz Gudenus in elsewhere. On more information about the authorship of the panorama see, Maximilian Hartmuth, "The Panorama of Istanbul ca. 1740 by Gudenus: A Reconsideration of its Date and Authorship," *Frühneuzeit-Info*, XXIII/1-2 (2012): 164-70.

[543] Boppe, *Les peintres du Bosphore*, 213.

New Mosque is stayed behind the residential texture of Galata.[544] On the background of the panorama, at tip of the peninsula, the Imperial Palace-Complex with its towers, kiosks, and courts are present. The monumental mosques visible among the regularized uniform houses were frequently referred to in the information part. Some structures are specified in the inscriptions including the *Valide Han, Mısır Çarşısı*, *Yedikule,* and the *Süleymaniye* Madrasah as well.

The eighteenth-century panorama of Philipp Ferdinand von Gudenus depicted the whole skyline of the peninsula in a realistic manner. The frequently referenced monumental mosques on the hilly topography of Constantinople comprised a complete Ottoman city view. The display and recording on the Byzantine structures including the still surviving Late Antique columns or the Blachernae Palace are absent on both the depiction and the information part. Nevertheless, the artist represented a limited number of buildings from Late Antique. The Hagia Eirene was depicted and inscribed on the bottom line as the Greek building on the first courtyard of the Imperial Palace and, the early Byzantine Aqueduct are marked next to the Şehzade Mosque.

The water structure is shown in elevation; it occupied a remarkable space among the continued ridge of hills as the most visible monument evoking the Byzantine past (Fig. 59.1). Only the second level of arches is visible in between the Şehzade and Fatih Mosques, yet the visual depiction has not emphasized the valley, the bridge is passing over. The overall panorama did not represent a particular endeavor for providing the circumstances around the Aqueduct. On the right end, the *Kilise* Mosque (the former Pantocrator Monastery) was depicted, and behind the arches, the towers of the *Yedikule* are apparent.

Gudenus's mid-eighteenth-century composition is more than a profile view of the capital as in the previous drawings. It is further corresponding to the literal panoramas produced in 360 degrees in the subsequent century. This grand-scale image provides us the considerable size of the Valens Aqueduct in the more

[544] Namık Erkal regarded this vast view as a significant attempt from the picturesque images to the real panoramas. See, Namık G. Erkal, ""Tam Zamanında Gözlerinizin Önünde," 43.

extensive and more complete ground of eighteenth-century Istanbul. The water structure remains its position as a complementary element in the crowded skyline as a perceived elongated urban object ascending through the sky over the structures. Nevertheless, it stands out as a monument rebelliously perceptible from the soft line of the hilly terrain; its representation is "against Istanbul" by constructing a line that straightforwardly drilled the naturally exposed topography.

A pair of unique representations from the 18th-century Ottoman capital resides in the collection of Pera Museum (Fig. 60, Fig. 61).[545] These two oil-painted views are in the same size, 74 x 175 cm and, share quite similar representational styles so that the product of the same anonymous artist. One of the panoramas is depicting the Istanbul city from a very- high ridge of Pera, including the Tower of Galata and its neighborhoods; another is representing the peninsula from Kadıköy by the East direction. These two compositions in tandem displayed the entire urban texture of Ottoman capital visible from the waterfront. The vessels on the sea, the gates, the shipyards, the harbors, and the architectural monuments are meticulously inscribed on the painting. At the bottom, inside the ornamented frames, the Italian markings explaining the monuments and places are fixed.

The first panorama showing the Golden Horn front exhibited the urban landscape inside the walls; the Imperial Palace and the gardens, the Hagia Sophia Mosque, and all the sultanic mosque-complexes over the Hills are apparent monuments. Regarding the Byzantine structures, the Palace of Constantine on the Adrianople, the Column of Constantine, and the Valens Aqueduct are apparent on the view. Another panorama from *Kadıköy* monitored the Marmara front of the triangular peninsula. While the Byzantine Aqueduct is not viewed, the harbors, the Land Walls and the *Yedikule* apart from the mosques and the Imperial Palace are quite sensible on this viewpoint which is unprecedented in the previous panoramic productions. This visual is a unique recording of the urban pattern on the southern

[545] The panoramas were printed in Bellingeri, Giampiero, Nazan Ölçer, and Sakıp Sabancı Müzesi. *Venezia e Istanbul in Epoca Ottomana: 18 Novembre 2009-28 Febbraio 2010, Istanbul, Università Sabancı, Museo Sakıp Sabancı= Osmanlı döneminde Venedik Ve İstanbul: 18 Kasım 2009 - 28 Şubat 2010: İstanbul, Sabancı Üniversitesi*, (İstanbul; Milano: Electa, 2009), 119.

ridges of the city and the coastline of Marmara. Furthermore, the painting presents originally colored depiction, which facilitates the comparison between the expansion of the green areas in the former colored Vienna panorama.

The Aqueduct apparent on the first panorama seems like a solid and straight bridge residing on the upper levels of the city (Fig. 60.1). Its decreased height is perceptible only through the Fourth Hill, the artist pictured the demolished arches of the Aqueduct on another end. In between the two monumental mosques, the locale of the Byzantine structure is specified as well. The outlook of the water bridge animates a colonnaded barrier in this unappropriated panorama of Istanbul. Even though the great painting does not clearly express every urban element and, has lost some nuances for a detailed explanation, its misty display still precise in the overall expression. A total of fifty-two major monuments are apparent on both sheets and marked at the bottom line. Among the previous productions of this genre, these pair of paintings are exceptional recordings of the realistic silhouettes showing the eighteenth-century intra-mural area in respect to the representational style, the viewpoints, and the scope.

The visual documentation of Istanbul proliferated by a significant number of Western artists since the sixteenth century when a turning point occurred in viewing the city. From the popular vantage point of Galata for scanning the imperial city, the historical peninsula was displayed as a multi-focal settlement on the horizontal axis with various market areas, social and religious complexes and the dense residential texture. Either in an indexical or an elaborated manner, this panoramic scenery recorded the nature, urban landscape, monuments and, sometimes represented vessels on the water. Thus, long before the invention of the panorama as a 360-degree constructed view by the Irish painter Robert Barker in the mid-eighteenth century, there were already several outstanding side views documenting the Ottoman capital.

Within these two centuries of the panoramic repertoire of Istanbul, the Byzantine Aqueduct of Valens has been depicted in all the images portraying the northern outlook of the capital from Galata. The continuous recordings of the

Aqueduct consolidate its place in the visual imagery of Ottoman capital. In addition to the originally-created views by travelers, western diplomats and artists who visited the city, a group of copied or altered representations resembling the European scenes or creating fantastical outlooks have drawn the water bridge in various contexts. Nevertheless, they have not added much value to the topographical recordings of the Ottoman capital. Hence, some of the instances from the 17th and the 18th centuries displaying the image of the Valens Aqueduct were not included in the panoramas section.[546]

CHAPTER 6

CONCLUSION

[546] Eyice mentioned about these copied views, especially the ones in the combination of city maps, see Eyice, "Cornelius Loos ve İstanbul Resimleri," 93. Two of this kind of city map and panorama combinations can be seen from Yetişkin Kubilay, *Maps of Istanbul*, 87-88, 93-94.

Following the examination of the four European depictions regarding the initial cityscape of Ottoman capital, three images regarded as self-representations from Ottomans, four technical maps of Ottoman water supply systems and nine European panoramic views, the concluding chapter discusses the set of interactions of the Aqueduct of Valens with the ever-changing historical topography of Istanbul. Each of these urban recordings indicates an individualistic interpretation for visualizing the city as a topographical entity and the aqueduct as an embedded structure. Their grouping under three main chapters of the initial, Ottoman and panoramic views follows the changes and progress in the modes of visual depiction in time. The more iconographic and basic depictions of the European productions constitute the initial visualizations regarding the fifteenth-century Istanbul. Then, the varied forms of Ottoman representations describe the more Islamized urban topography starting from the sixteenth century. As of the contemporaneous evolution in the mapmaking, the panoramic mode of representations until the eighteenth century are the recordings of the monumental skyline of Istanbul by the European visitors and travelers.

Contrasting to this configuration into the three chapters, the visual representations have certain overlaps in relation to the patronage and the function of these images. It is especially salient in the production of the initial city views by Europeans and the Ottoman depictions regarding the fifteenth to the seventeenth-century capital. The contents of the Buondelmonti's Düsseldorf manuscript and the well-known Vavassore image have considerable emphases on the Ottoman imperium in the city. They are rather in favor of documenting the recent occupants of Constantinople in contrast to the earlier European views which were silent about the fall of the city. Then, both of these images representing the fifteenth-century religious and imperial interventions of Ottomans are strongly associated with the Ottoman patrons in creating the new cartographic image of the city. Ottomans sustained this in the subsequent productions; the image-making of the city was always under the sponsorship of the sultan or for the appreciation of the sultan. The miniature-map of Istanbul in *Mecmu-i Menazil*, the *Hünername* map of Istanbul, and

the seventeenth-century views of the city in *Kitab-ı Bahriye* were utilized to convey a desired image of the capital. In the sixteenth-century, the sultan and the ruling elite shared an interest to the topographical representation in relation to the territorial expansion.[547] The *Mecmu-i Menazil* was produced in this context as both a record of the imperial territorial progress and a panegyric chronicle. The *Hünername* book is also a state-sponsored project covering the important events from the lives of sultans in military and ceremonial bases. Its Istanbul map along with the other paintings were prepared by various artists in the royal painting studio and it shared the same concern with the miniature-map in *Menazil* for celebrating the grandeur of the capital. It was specifically prepared for the Ottoman court, not for a wide circulation. The Istanbul views in the *Kitab-ı Bahriye* were other Ottoman self-representations in the global perception of the seventeenth-century. Even though the book itself was prepared as a navigation manual, it was embedded with the discourse of power by representing the Mediterranean expansion of the Ottoman Empire.

Another group of state-sponsored Ottoman maps used in this study is the maps of water supply systems. Namely, the Maps of Beylik Water Supply System, the Map of Köprülü Water Supply System and the Map of Süleymaniye Water Supply System are shared the purpose for technical use of the waterway inspector or reporting the existing conditions to the authorities. These architectural rolls produced by the royal architects were distinct from the other images of Istanbul made by the Europeans and Ottomans with their function and their occupants.

The panoramic views of the Ottoman capital developed between the sixteenth and the eighteenth centuries are far from a remarkable investigation of their authorship. For most of them, the knowledge about the illustrator or the publishing house is insufficient. Nevertheless, the evaluation of this significant number depicting the northern profile of Istanbul as the individualistic attempts seems more appropriate since the illustrators came from separate parts of Europe for various purposes and with different interests. Their mapping impulse was developed with

[547] Orbay, "Istanbul Viewed," 32.

the flood of information and the evolution of mapmaking in the sixteenth to eighteenth centuries by the account of travelers and voyagers on the newly discovered lands or the faraway places.[548] Thus, the extensive travel literature of the Ottoman world and the capital along with visual accounts intended a broad audience and widely circulated for corresponding the demanding geographical works during the copying, reprinting and translating processes.

Putting aside their correspondences and distinctions in the pictorial, representational, functional and symbolic bases, all these visual documents construct a continuous portrait representing the stages of the urban development along with the symbolic and topographical transformation in the cityscape. Most notably, they are the conveyors of evolution in the perception of the Byzantine heritage, the Aqueduct of Valens, within the urban space. The changing roles and the status of the monument are thus appropriate to be introduced under the four headings.

6.1. Beyond the Practical Role

The emergence of the Aqueduct of Valens in the urban representations coincided with one of the fifteenth-century initial compositions depicting the cityscape of Istanbul. The Buondelmonti views were the basic configurations concerning the principal monuments in the cruder geography of the city. However, through the end of the century when they had acquired some level of animated quality, the first and a conspicuous depiction of the aqueduct took place at the center of the Ottoman Istanbul by. This view, the Düsseldorf manuscript of Istanbul is the first to speak to the conquest of the city and the subsequent transformation inside the walls. As the only recording of the process of the reconstruction in the twenty years following the

[548] Manners, *European Cartographers*, 81.

conquest, the map shows the erected Islamic structures and the imperial residences along with the converted Hagia Sophia.[549]

All these newly added structures are the symbolic affirmations of the changing status of the city. In fact, the reconstruction of the capital was referred to as the "greater jihad" then the conquest of the Byzantine city in the Mehmed II's *waqfiyya* which records his pious endowments.[550] Following this greater emphasis on the revitalization of the city, the two imperial palaces were located at the tip and at the center of the peninsula which highlighted the Ottoman power; the mosque-complexes created urban nodes which constituted civic centers for Muslim life. Apart from several complexes and residential settlements across *the intra-muros,* his ambitious mosque-complex project of Fatih established on the symbolical site through the northern branch of Byzantine Mese. The Byzantine columns, the churches, and the Aqueduct were present on this reconfigured Ottoman land. So, this is the preliminary composition showing the nucleus of the new Ottoman capital by the abstraction of the physical reality and the selection of the topographical information about the capital.[551] With the mosques, churches and other elements, this early visual recording was celebrating the cultural hybridity of the Ottoman capital.[552] Thus, the represented Byzantine aqueduct at the center imposes more than a functional role of the water bridge; it has been selected for partaking the sultan's manifestation of the reconstructed city of Istanbul. It was the 'life-river' of two of the most conspicuous complexes of the sultan, the Topkapı Palace and the Mosque

[549] For the initial mosques seen in the Düsseldorf map see, Manners, "Constructing the Image," 89.

[550] Necipoğlu, "Visual Cosmopolitanism," 2.

[551] On the concerns of iconographic plans see, Pinto, A., John, "Origins and Development of the Ichnographic City Plan*," Journal of the Society of Architectural Historians*, Vol. 35, No. 1 (1976), 35.

[552] The sultan's cosmopolis was described as an aggregate of quarters with its mosques, churches and synagogues. On the revitalization of the multicultural and multinational Ottoman capital see Giovan Maria Angiolello, *Viaggio di Negroponte*, ed. Cristina Bazzolo (Vicenza, 1982), 24, 37.

of Mehmed II which were recorded with praises and symbolized the refounding of Constantinople in the utmost level.[553]

The preliminary images of the city had remained for an extended period as the precursor for the later compositions. So that the visibility of the aqueduct in the initials is rather significant for establishing an essential status which made the structure apparent in the subsequent visuals regarding the urban topography. For a long time, the Byzantine water bridge had maintained its selected status in Istanbul by the perspective plan of Vavassore. The early sixteenth-century production had been continued to exhibit the portrait of the reconstructed city during the years of Mehmed II. This is a complete picture of the capital out of an improved version of the elemental composition of Buondelmonti which was later protected, copied, and re-modeled in different contexts. Thus, these initial representations seem symbolic for developing the urban imagery of the capital and, the Aqueduct of Valens is regarded as one of the indicators of this re-established city.

6.2. Belonging to the Imperial Landscape

Starting from the sixteenth century, the Ottoman views concerning urban Istanbul present various depictions on the geographical setting and topographic features. Each of them captures the capital with different compositions after the significant constructional phase of the sixteenth century when the outlook of the city was more urbanized and Islamicized. Along with the urban depictions of Istanbul, several Ottoman technical representations regarding the water submission systems employed the Valens Aqueduct in various contexts. Nevertheless, the wide array of visuals from private to state-sponsored artistic productions, namely the miniature maps of Matrakçı Nasuh, the bird's-eye views from *Kitab-ı Bahriye* and the

[553] These two grand projects were mentioned by Kritovoulos as "contesting with the greatest and best of the past". See, Necipoğlu "Visual Cosmopolitanism," 22-23.

architectural drawings of Beylik, Köprülü and Süleymaniye Waterways, had been bound by the same system of representation regarding the Aqueduct of Valens.

As the shared language of the various Ottoman cartographic productions, the Byzantine structure had been frequently displayed from elevation. Whether it had been schematized by Nasuh in *Mecmu'l Menazil* or displayed a sheer realism by the 18th-century map of Beylik Waterways, the representational mode was strictly two-dimensional. The bird's-eye view compositions representing Istanbul from the 17th-century versions of *Kitab-ı Bahriye* as well, render the northern sight of the water bridge from the Golden Horn despite the orthogonal orientation of the map. Regarding the prominent structures on the composition, the Ottoman kind of depiction consents elevational composition. It seems like an outcome of the traditional miniature painting; the Ottoman architects and artists had not much experience on perspective drawing and orthogonal projections.[554] Since widespread representational tradition could not transcend the limits of the conventional forms of depiction, the appearance of the Byzantine Aqueduct had been adjusted to the royal art. If the illustration had not been schematized, the elevational depictions provide elaborate information on what the aqueduct looked like as well.

Beyond the mode of representation, all these indications of the Aqueduct in the Ottoman topographical and architectural illustrations epitomize the sheer emphasis; the Aqueduct of Valens had been included in the more Ottomanized topography of Istanbul. Concerning the foundational years of the capital, quite a number of religious complexes had dwelled upon the capital in time. Thus, the social, educational and commercial structures clustered around the mosques, the imperial and dynastic structures, the residents of the ruling elite had redefined the outlook of the city. Nevertheless, the Byzantine flavor in the architectural inventory

[554] On the Ottoman conventional limits of representation and its examples see, Gülru Necipoğlu, "Plans and Models in 15th- and 16th-Century Ottoman Architectural Practice," *Journal of the Society of Architectural Historians*, Vol. 45, No. 3 (1986): 234-240. For the bibliography of the wide range of Ottoman miniatures see, Nurhan Atasoy, *Türk Minyatür Sanatı Bibliyografyası*, (İstanbul: Yapı Kredi Bankası: Kültür ve Sanat Hizmetleri, 1972).

of the city had remained after the sixty years of Ottoman domination.[555] Since Sultan Süleyman claimed being the legitimate inheritor of the Byzantine legacy of Constantinople,[556] Martakçı's sixteenth-century plan of Istanbul is a symbolical collection which had been enumerating the significant monuments of all times. The book itself, in fact, was bounded with the discourse of power and legitimization by reflecting praises for the military events of the sultan.[557] Therefore, the initial picture of the book, the map of Istanbul, is the most significant and glorious one showing the imperial capital in a symbolical sense and with a hierarchal order of the monuments. Among the rows of buildings and the series of monuments, the Byzantine Aqueduct had been involved in the revealed universal image of the capital in the early years of Süleyman's reign. The water bridge was stylistically documented in the portrayal of the capital disseminating the Ottoman imperial outlook.

The more convenient settings for the emergence of the aqueduct as an urban landmark are notable in the Istanbul maps from the seventeenth-century versions of the Kitab-ı Bahriye manuscripts. With the excessive use of the standardized topographical elements such as the residential buildings, the essential details of the urban landscape become more recognizable components.

> In the midst of those houses, variously Painted appears an incredible number of Domos, cupola's, steeples and towers, much higher than the ordinary buildings. All those Domos are covered with Lead as also the steeples, the spires of which are gilded: and the verdure of the Cypress and other trees, abounding in a prodigious number of Gardens, contribute infinitely to the pleasing confusion of various colours that charm the eyes of all that approach near to the city.[558]

[555] Denny, "A Sixteenth-Century Architectural Plan," 56.

[556] Pınar Emiralioğlu, "Cartography and the Ottoman Imperial Project in the Sixteenth Century," in *Imperial Geographies in Byzantine and Ottoman Space* ed. S. Bazzaz, Y. Batsaki, and D. Angelov (Cambridge, Massachusetts, and London, England: Harvard University Press, 2013), 74.

[557] See Orbay, "Istanbul Viewed," 29-68.

[558] Guillaume-Joseph Grelot, *A Late Voyage to Constantinople*, (London: Printed by John Playford, 1683), 59.

The verbal description of the seventeenth-century Istanbul by Guillaume-Joseph Grelot corresponds to the visual recordings of *Kitab-ı Bahriye.* The domination of the Islamic structures among the uniform urban fabric houses now created the main emphasis of the urban picture through the end of Süleyman's reign and of the subsequent periods. Those were the only centers of the *intra-mural* area which seems conventionalized to some degree. The same accent with the monumental religious complexes is also evident in the depiction of the Valens Aqueduct. What is remarkable on both of the recordings of Istanbul in the versions of the *Kitab-ı Bahriye* is the representation of the Byzantine water structure as one of the essentials of the almost Islamicized topography.

6.3. Lasting on the Monumenta Skyline

When the chief architect Sinan had developed the antecedent practices in the urban topography and, had located the three sultanic mosque-complexes of Süleyman, Şehzade, and Mihrimah atop the vacant hills, he had re-defined the northern cityscape of Istanbul. The created representational front on the Golden Horn induced the crucial shift in the viewing direction of the city. From the sixteenth century onwards, the produced views of the capital had been adjusted to their viewing points from the north, on the ridges of Pera. A wide range of panoramic representations has been documented as the most renowned imagery of the northern the part of Istanbul since then. It was a convenient rotation for perceiving the elongated water bridge between the Third and the Fourth Hills which are almost parallel to the Golden Horn. Thus, it made the Aqueduct among the first ranked structures visible in the monumental panoramas of Istanbul.

> This is the Aqueduct of Valens stretching from hill to hill, and seen in almost every direction… In the perspective is, the city of Constantinople, displaying its most conspicuous objects—the Mosque of

> Solimanie, and the Aqueduct of Valens. In the centre is the new bridge which the sultan has erected across the harbor.[559]

Those wordings are the recording of the early nineteenth-century traveler of Istanbul; Thomas Allom, the Irish priest, quoted his experience from the heights of Pera during his stay at the ambassadorial residence of Lord Strangford. In fact, his expressions confirm the ongoing status of the aqueduct to the most notable monuments in the nineteenth-century skyline of Istanbul. Further, he highlights the evident appearance of the water structure in almost every direction corresponding to the frequent depiction of the structure in the cycles of views. The Byzantine Aqueduct was lasting on those, all the panoramic depictions which were originally-created until the end of the eighteenth century and, observed the city from the ridges of Galata.

For most of the time, the northern skyline of Istanbul has been bodily perceived with the contemporaneous or historic structures. Since the sixteenth century onwards, its formative geography that was separated by the body of water and varied through the northern heights has actively interacted with the monumental mosques settled on the hills. This relationship is explained as potent *genius loci* shaping the meaning of the urban skyline.[560] It was the scene which had been concluded by the uniform houses inside the walls; these small settlements had created the figure-ground relationship with the landscape and made the urban landmarks that were accentuated in the urban space. Within this semi-artifact landscape, the Valens Aqueduct has been articulated by its horizontal spatial implication in between the hills. Its connection with these natural elements consolidates the "imageability" of the structure which further facilitates the character or the meaning of the

[559] Thomas Allom, *Constantinople and the Scenery of the Seven Churches of Asia Minor*, vol.1, ed. by R. Walsh (London: Fischer&Son,1839), 14-15, 23-25.

[560] Necipoğlu, *Sinan Çağı*, 140-141.

skyline.[561] Based on its shape and the arrangement of the water bridge, one could identify the environment and create a mental image around it. The empirical information has a considerable significance for associating this concrete structure with a meaning or a character depending upon the surrounding landscape. The human-made river of Valens which is not underlying the valley yet, crossing the valley, has been memorialized much the same way by Thomas Allom, in the textual descriptions of the very early fifteenth-century traveler of Constantinople by Ruy Gonzales de Clavijo.

> …and within the city, there are fountains and wells of sweet water; and in a part below the church which is dedicated to the Holy Apostle, there is a bridge reaching from one valley to another, over houses and gardens, by which water used to come, for the irrigation of those gardens.[562]

The positioning of the aqueduct in the natural setting causes the hills to be connected and to stand across each other, as well. Thus, the landscape gets its value through the water bridge, and the bridge has been recalled in combination with the urban landscape. Therefore, the relationship of the aqueduct with the topography made it integral to every produced panoramic view. Consequently, the elongated structure has been comprehended altogether with the designed urban landscape evolving on the northern heights of the capital.

6.4. The Life-Giving River

The vital role of the Aqueduct of Valens in the urban life of Constantinople is irrefutable in supplying the city throughout the centuries. Since its erection on the

[561] On the "imageability" see, Christian Norberg-Schulz, *Genius Loci: Towards a Phenomenology of Architecture,* (New York: Rizzoli, 1980), 20.

[562] Clavijo, *Narrative of the Embassy of Ruy Gonzalez de Clavijo*, 46.

hilly topography, the fourth century-early Byzantine monument has been referred as the city's aqueduct in the original sources. To sustain the vital source of the city, emperors and sultans made significant investments; the maintenance and security of the aqueduct were one of the foremost matters in the city. In parallel to the functional value, the inclusion of the aqueduct in the significant number of representations of Ottoman Istanbul exposes the changing status of the water bridge into a monument. This is especially attested by the initial images of Europeans and the Ottoman urban representations which were more attached with the symbolical concerns and prepared for the state or sponsored by the state for disseminating the desired image of the Ottoman capital. Among the variants of depictions viewing the landscape from different vantage points with various symbolical concerns and different design precepts, the travelers' profile views frequently depicted the aqueduct and perceived it as a notable landmark by all means. Eventually, the Valens Aqueduct features all the three of determinants of a landmark; the function, the distinctive design, and the historical reputation.[564] However, the monumental status of the aqueduct has mainly related to the functional basis. The various water supply maps clearly show the operational importance of the intramural water bridge for making possible civic life. The reciprocity of the indispensable functional role and the monumental presence of the Aqueduct of Valens made visible this permanent edifice of Istanbul throughout the centuries.

Depending on its operational importance through the conduit of water to the city, the visibility of the Byzantine heritage has a further implication. This is a symbolic bridge of all times, which has continuously evoked the transfer of water inside the capital city. The body of the ancient aqueduct has been shown up most concretely on behalf of the great endeavor of sultans for compensating the biggest deficiency of the *payitaht* (the Ottoman capital). Therefore, the frequent appearance of the aqueduct in different contexts and the monumentalizing of the Byzantine structure in the visual memory of Ottoman imperial landscape have been strictly

[564] John Bougher Rowland, *Features Shown on Topographic Maps* (Washington, D. C.: Geological Survey Circular, 1955), 8. https://pubs.usgs.gov/circ/1955/0368/report.pdf.

bounded with the visualization of the desired, reached, distributed and running water to the *inta-mural* area of Istanbul.

Apart from the imagery of Istanbul produced within the three centuries, the diverse literary recordings from the Early Byzantine period to the final years of Ottoman rulership had made allegorical implications on the great water works. The fourth-century Archbishop of Constantinople had recalled the Thracian water distribution line as a stream; this extensive water network was defined as a "subterranean and aerial river."[565] In some Ottoman accounts as well, the use of words for denoting "aqueduct" philologically implicate a river;[566] these sources called an aqueduct *kemer-i* (arches) *âb-ı revan* (stream.)[567] Thus, within this concept, an aqueduct was literally represented a human-made river. All those historical recordings have also specific references to the liveliness of the city with the abundance of waters. The Thracian Water Network of the fourth-century Constantinople had a primary importance which almost surpassed the imperial elaboration of the city.[568] Themistius challenged the founder of the city for originating "an inanimate state" which was full of precious objects pronouncing the imperial rank, yet it did not have water for creating a "revelry."[569] Thus, the animation of the city seemed only feasible with the availability of Thracian waters which were flowing through the aerial river of Valens to the hearth of the Byzantine capital and, brought "joy" to the number of *nymphaeums*.[570]

After the construction of the Kırkçeşme Water Supply System, Eyyübi narrated the running waters to the city.[571] The freshness and liveliness of the city and

[565] Mango, "The Water Supply," 14.

[566] See, Eyyübi, *Menakıb*, 162, 166; See also, Gelibolulu Mustafa Ali, *Künhü'l Ahbar*, 65

[567] Şemseddin Sami, *Kamus-ı Türki*, ed. P. Yavuzarslan (Ankara: Türk Dil Kurumu Yayınları, 2015), 21.

[568] Crow et. All., *The Water Supply*, 224.

[569] Ibid.

[570] See the oration of Themistius XI. 151 a-152b in Crow et. All., *The Water Supply*, 224.

[571] Eyyübi, *Menakıb*, 156-265

the generosity of people were reported when the plenty of water was flowing through the fountains of the Ottoman capital. So that, the abundant waters of the city "brought all friends to new lives" which is "like the water of life."[572] They were also associated with the world's watery genesis and the heavenly springs. Finally, they were reminded of the God's verse "…we made from water every living thing."[573]

All those encomiums also exalted the aqueduct of the city. For providing the long-prayed waters to the hearth of the imperial city, the structure has been an intermediary element. Even after twelve centuries of its erection, the restoration of the bridge was praised by the Ottoman residents with an inscription.

> Şad-ab kılıp alemi izzile Sultan Mustafa
> Bala-yı tak-ı ser – bülend maü'l-hayata navedan.[574]

The couplet was inscribed on the pier of forty-fifth to inform that "the sultan has supplied the world with the honorable water and, made the long bridge a lofty vessel for the 'water of life." Here, the early-Byzantine aqueduct was recorded as a conveyer with an exalted mission. Its long body reminded of a life-blood and evoked a river providing Istanbul "the best thing;"[575] the water of life or *âb-ı hayat.*

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[572] These were recorded in the verses; "Zemin içre akuben geldi çün ab/ Hayat-ı ab buldı cümle ahbab/ Akar her çeşmenün ab-ı hayatı/ Niçe çeşme suları ab-I hayvan." See, Eyyübi, Menakıb, 247.

[573] For the cosmic concepts of water see Eyyübi, *Menakıb*, 247-250. The verse was also recorded by Eyyubi in 255-257. See also, *The Quran*, trans. A. Y. Ali, 21.30. http://www.theholyquran.org/?x=s_main&y=s_middle&kid=14&sid=21

[574] Eyice, "Bozdoğan Kemeri," 320.

[575] Themistius declared water as the best thing in the city. See, Crow et. All., *The Water Supply*, 224.

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APPENDICIES

A. FIGURES

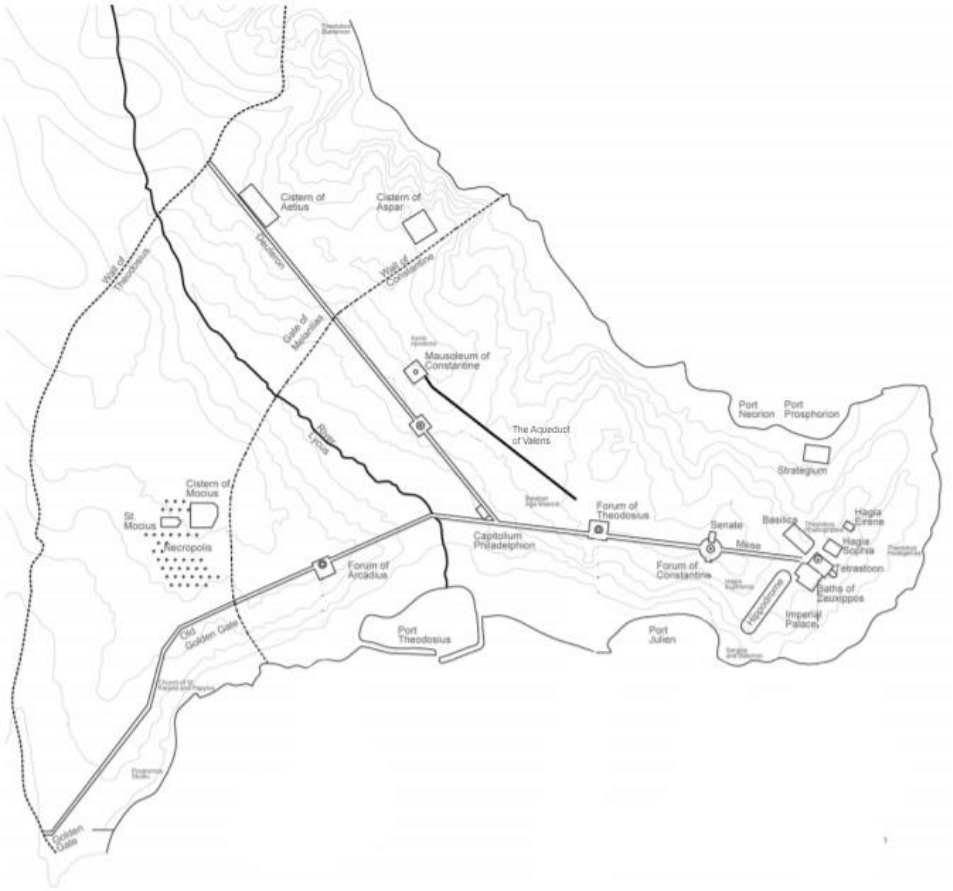

Figure 1: The Aqueduct of Valens on the plan of sixth-century Constantinople. Image by the author based on Yoncacı, 127, Figure 8.

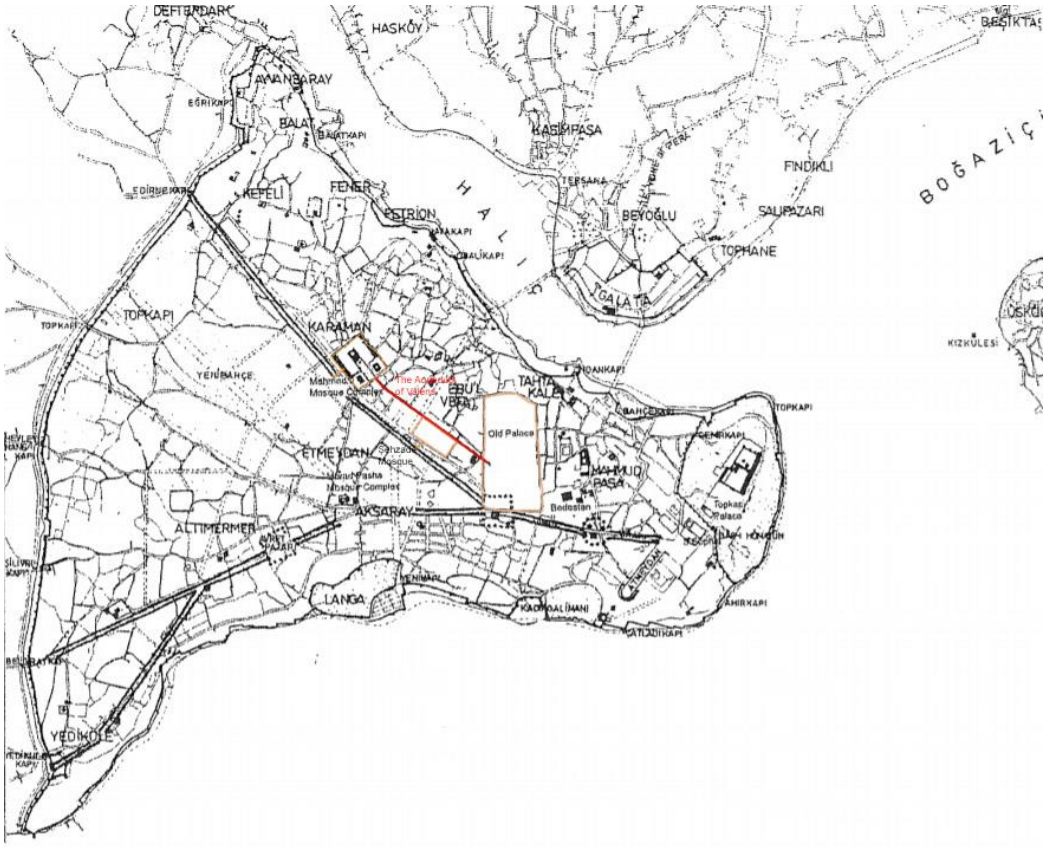

Figure 2: The layout of Ottoman capital of Istanbul showing the aqueduct as a bridging element between the Mosque of Mehmed II, Şehzade Mosque and Old Palace during the reign of Mehmed II. Based on Kafesçioğlu, 2005, Figure 1.

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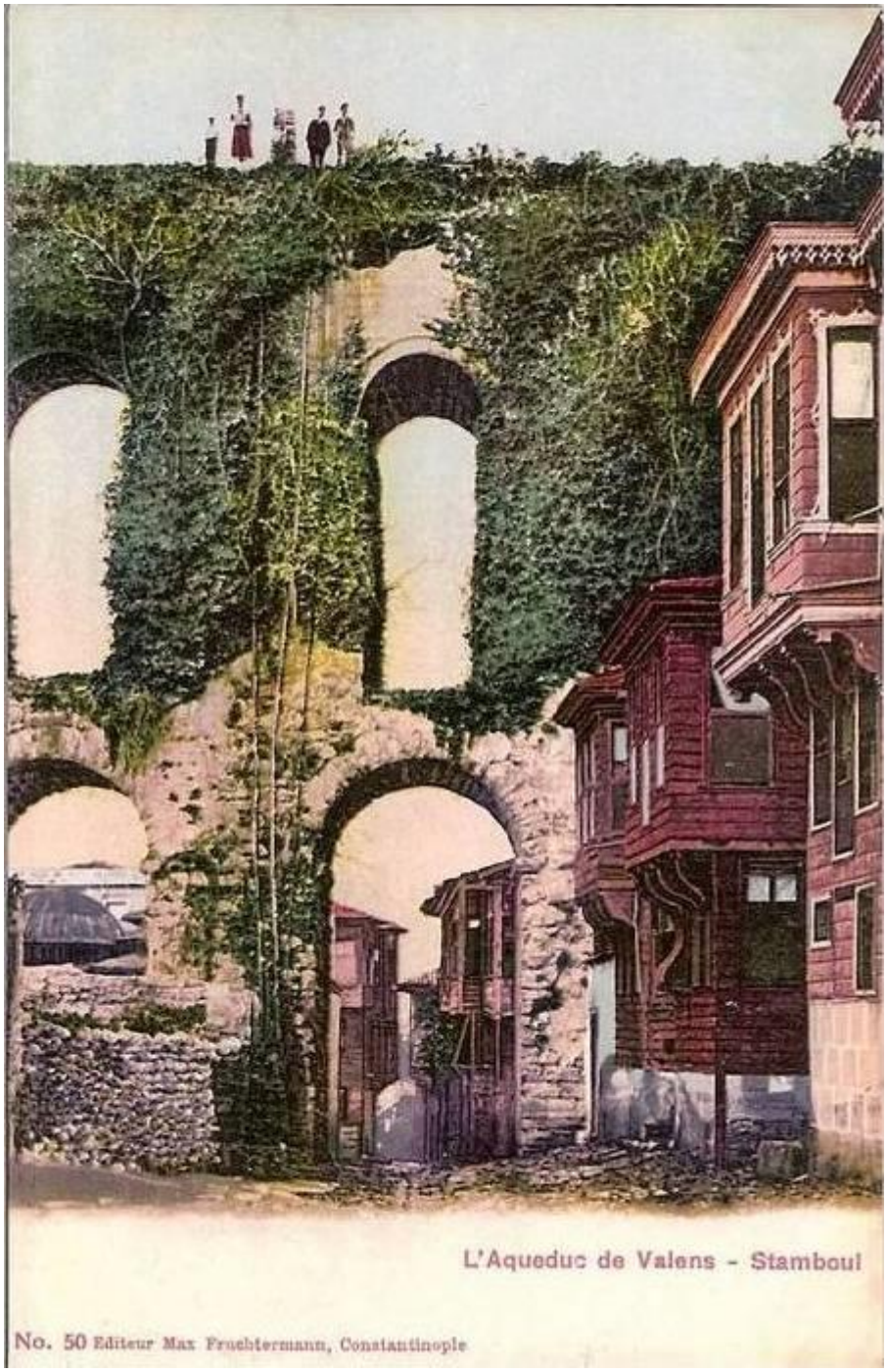

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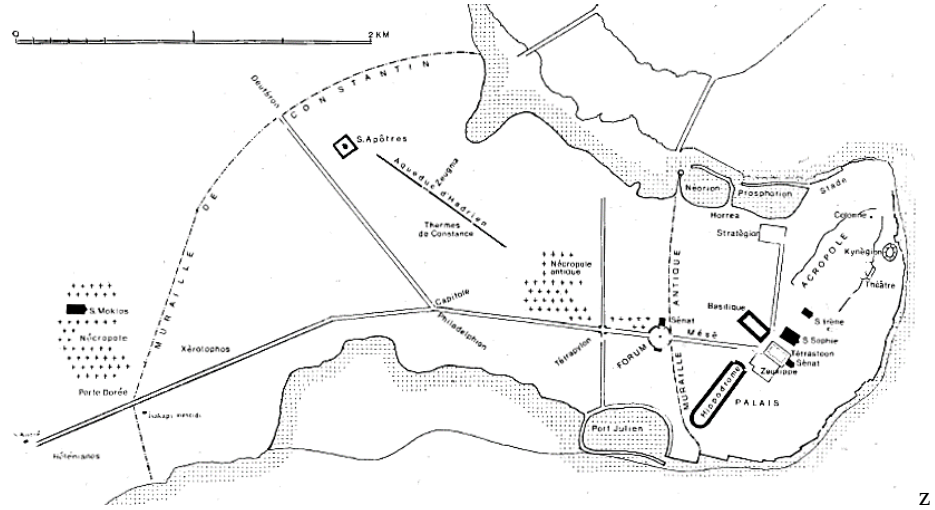

Figure 13: The plan of Byzantine Constantinople showing the Constantinian layout of the city. Mango, 1855, Plan 1.

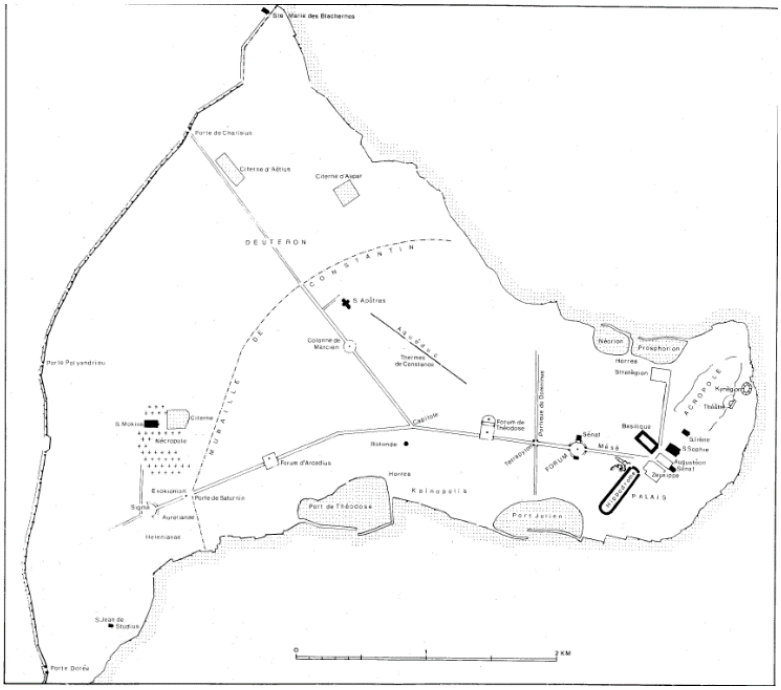

Figure 14: The plan of Byzantine Constantinople with the enlargement of the new borders, Theodosian Land Walls. Mango, 1985, Plan 2.

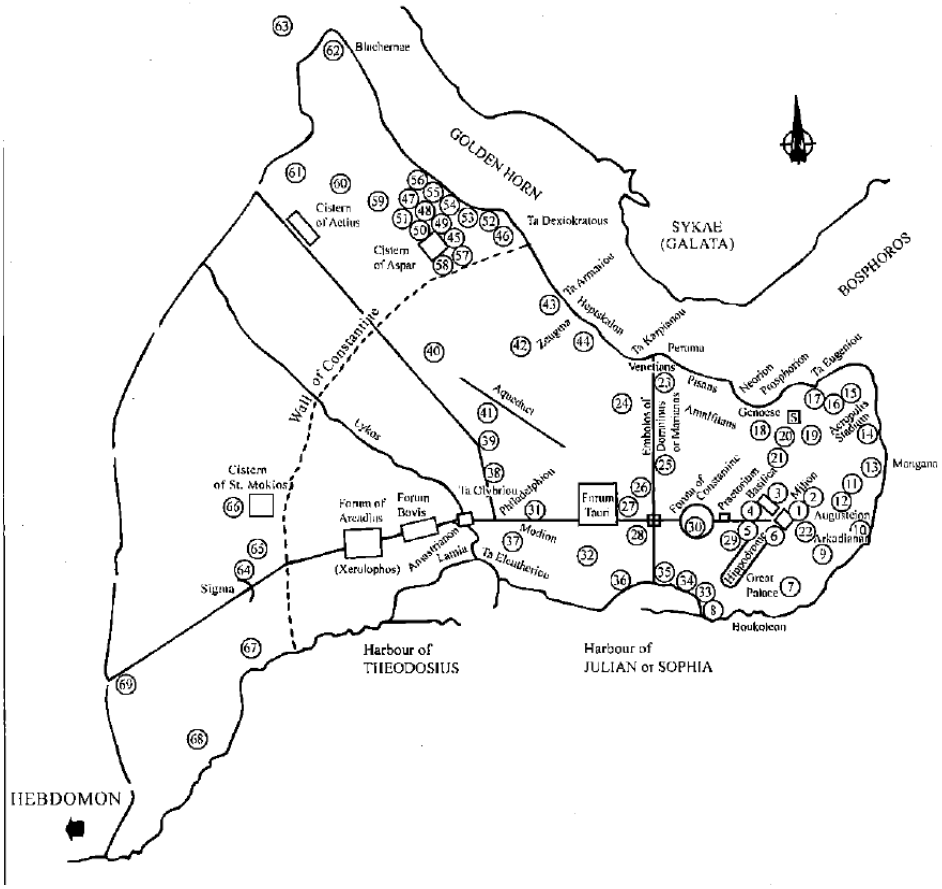

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Figure 16: The first water supply system of Constantinople, Halkalı Water Supply System in Thracian peninsula. The image by the author based on Crow, Bardrill and Bayliss, 2008, Figure 2.5. and 3.1.

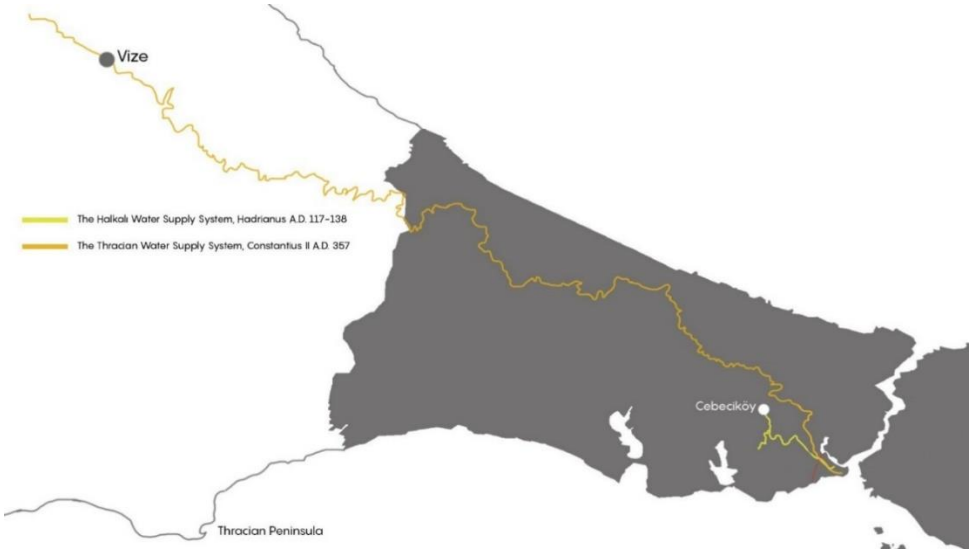

Figure 17: The Thracian Water Supply System in Thracian Peninsula. The image by the author based on Crow, Bardrill and Bayliss, 2008, Figure 2.5. and 3.1.

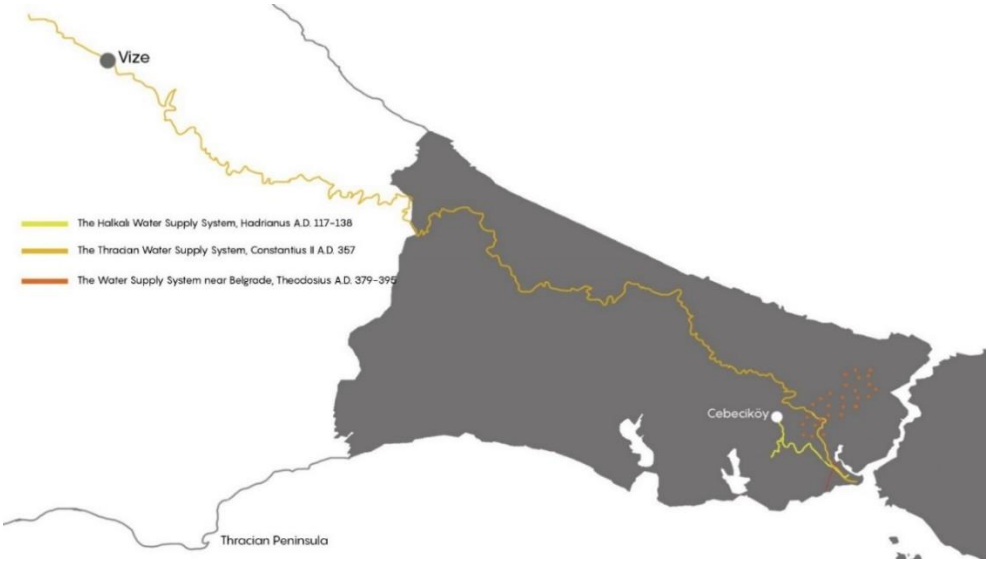

Figure 18: The water supply system built in the reign of Theodosius. The image by the author based on Crow, Bardrill and Bayliss, 2008, Figure 2.5. and 3.1.

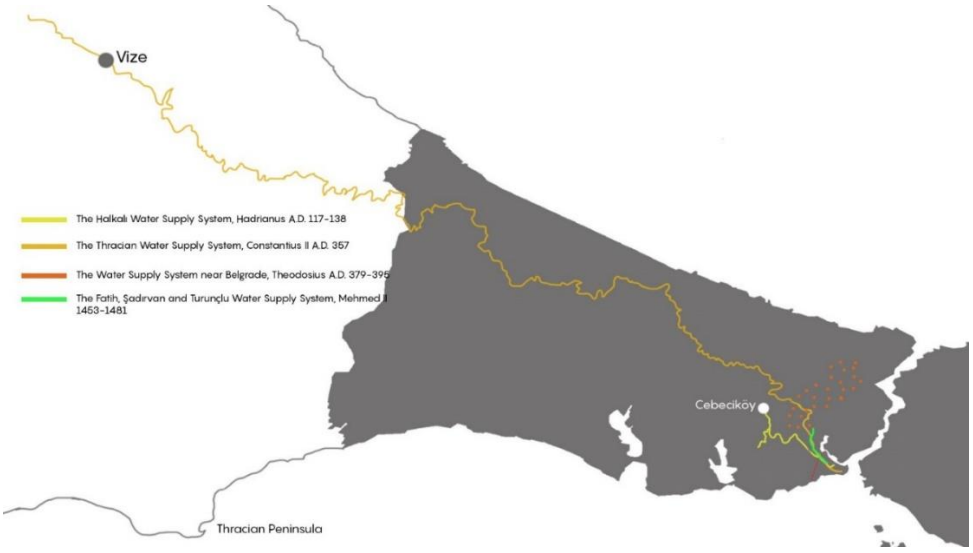

Figure 19: The water supply systems built in the reign of Mehmed II. The image by the author based on Crow, Bardrill and Bayliss, 2008, Figure 2.5. and 3.1.

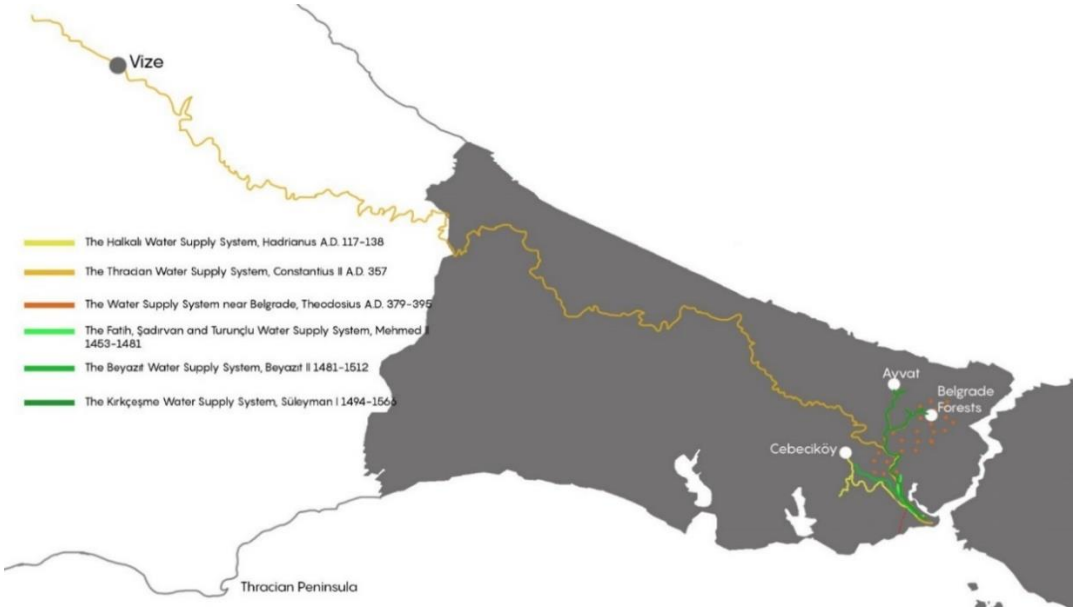

Figure 20: The water supply systems of the city of Istanbul from Hadrian to Süleyman I in Thracian Peninsula. The image by the author based on Crow, Bardrill and Bayliss, 2008, Figure 2.5. and 3.1.

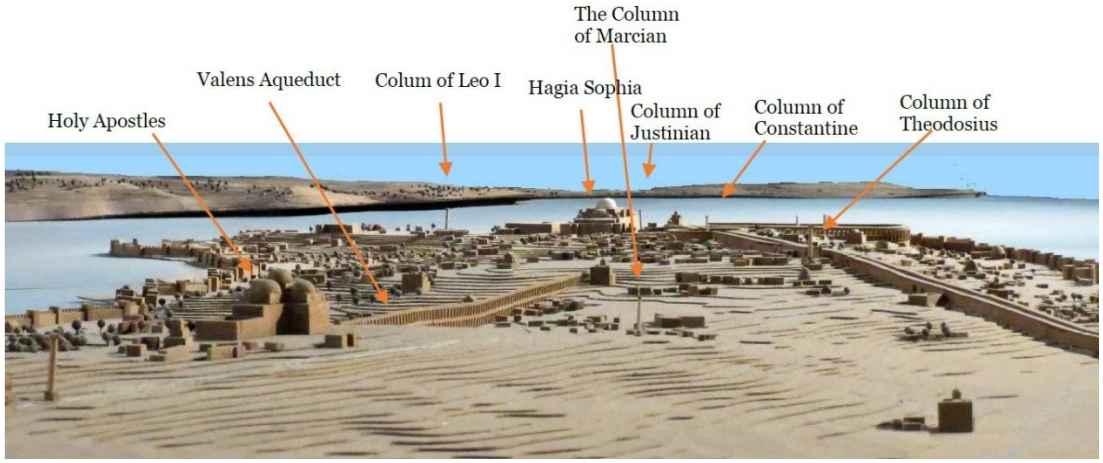

Figure 21: The Aqueduct of Valens among the urban monuments of Constantinople. Yoncacı, 2015, Fig. 4.25.

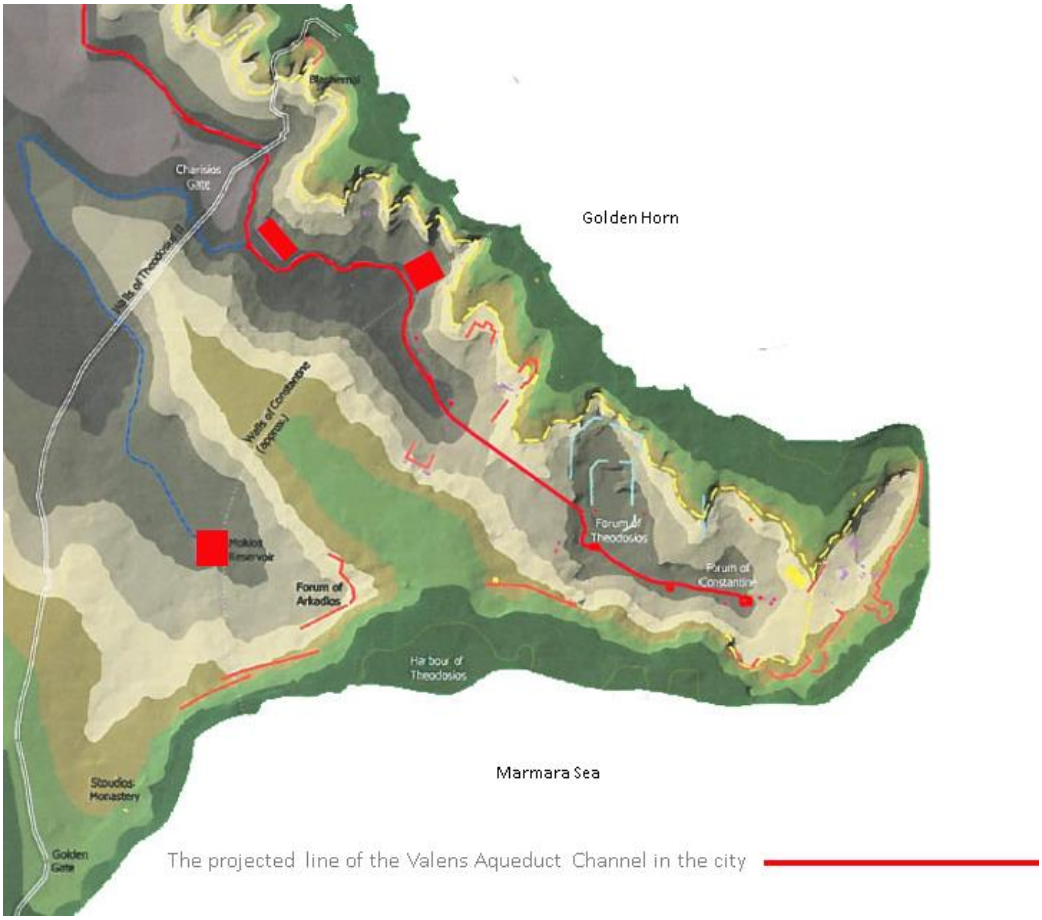

Figure 22: The projected supply line of the Aqueduct of Valens. Based on Crow, Bardrill and Bayliss, 2008, Figure 2.2.

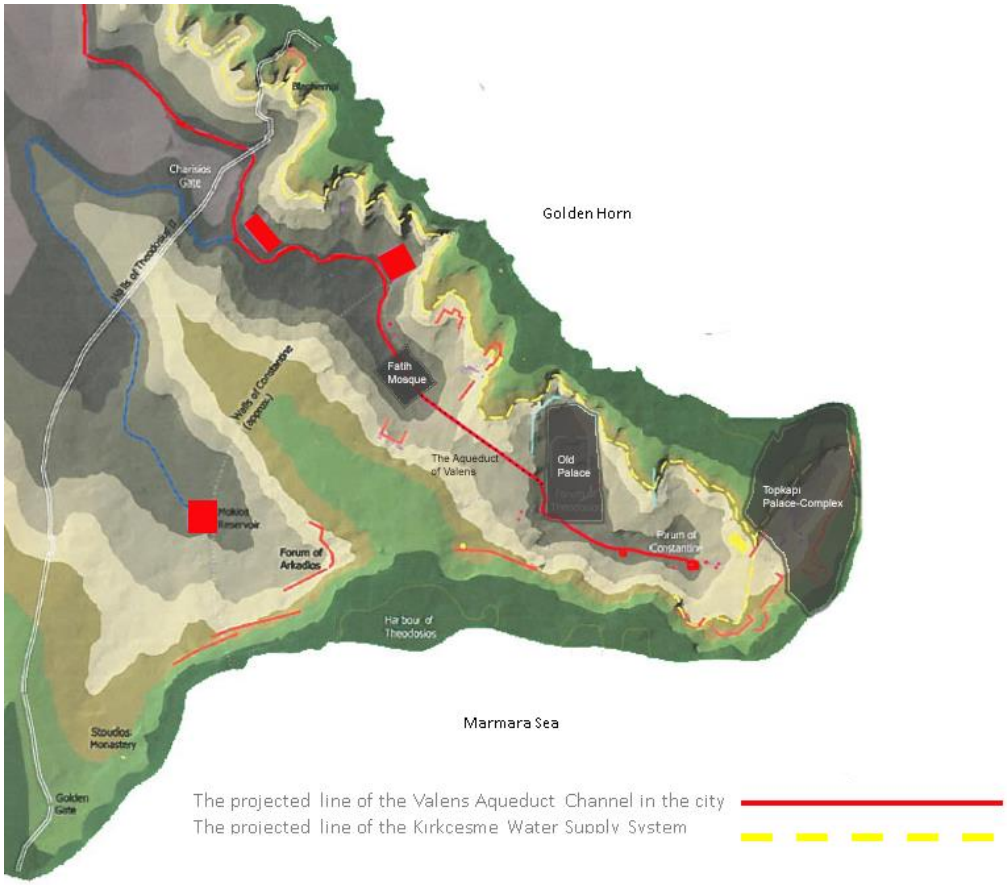

Figure 23: The projected supply line of the Aqueduct of Valens and the Kırkçeşme Water Supply System. The image by the author based on Crow, Bardrill, and Bayliss, 2008, Figure 2.2. and Kafesçioğlu, 2005, Figure 1.

Figure 24: The versions of maps of Constantinople in Christopher Buondelmonti's *Liber Insularum Archipelagi.* Images from Kafesçioğlu, (2009), Figure 8 and retrieved from, http://eng.travelogues.gr/collection.php?view=258

Figure 25: The initial map of Constantinople with the configuration of four churches and four columns in *Liber Insularum Archipelagi,* 1422. In, Kafescioğlu, 2009, 145.

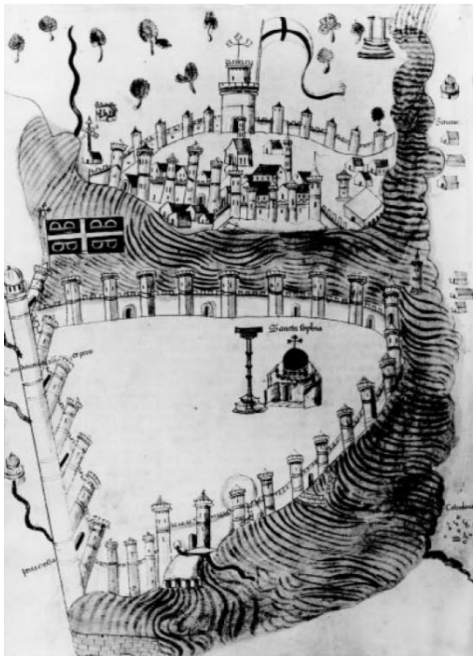

Figure 26: The map of Constantinople in *Liber Insularum Archipelagi.* 1475. The Walters Art Museum, Baltimore. MS. W 309. In, Manners, 1997, 80.

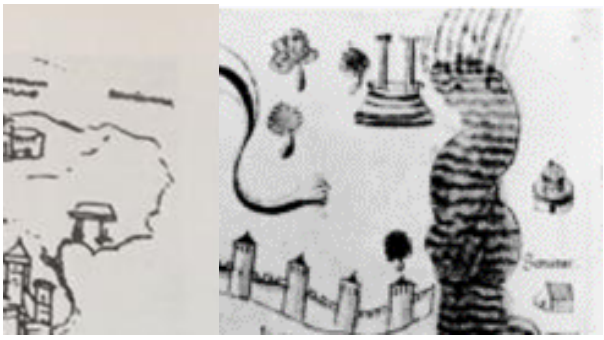

Figure 27: The details of the produced maps of Constantinople from the 1422 and 1475 versions showing the *Diplokionion* on the shore of Bosporus.

Figure 28: The view of Constantinople from the Liber Insularum Archipelagi by Cristoforo Buondelmonti in the early 1480s. Düsseldorf, Universitats-und Landesbibliothek, Ms. G 13, fol. 54r.

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Figure 28.2: The detail from the northwest part of the map with the expression of *aque dulces*.

Figure 29: The 1520 map of Istanbul by Giovanni Andrea Vavassore. Retrieved from https://www.akg-images.co.uk/archive/-2UMDHUH8UXK8.html

Figure 29.1: Detail showing the Aqueduct of Valens and its water tower.

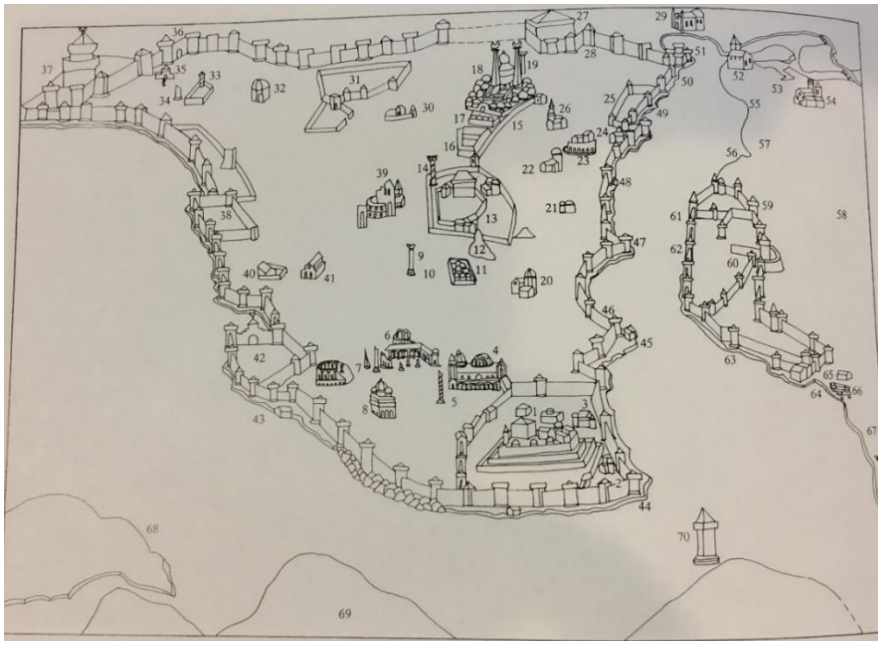

Figure 30: The seventy monuments depicted in Vavassore view of Constantinople. In Berger, (1994) , 332

Figure 31: Sebastian Münster's Constantinople (1550). Retrieved from https://www.vintage-maps.com/en/antique-maps/europe/turkey/muenster-turkey-constantinople-istanbul-1550::807

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Figure 33: Matrakçı Nasuh's Istanbul view from the *Beyan-I Menzil-i Sefer-i Irakeyn* Retrieved from http://www.turkishstudies.net/files/turkishstudies/822798593_3ArazAyG%C3%BCldane-sos-57-66.pdf

Figure 33.1: Detail showing the Valens Aqueduct seen from the Golden Horn in Matrakçı's view

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Figure 35: The *Hünername* Map of Istanbul. Retrieved from https://commons.wikimedia.org/wiki/File:Istanbul_in_the_16th_century_-_left.jpg

Figure 36: The view of Istanbul in the London-718 manuscript of *Kitab-ı Bahriye.* In, Necipoğlu, 2013a, 143.

Figure 36.1: Detail showing the Valens Aqueduct in the view of Istanbul in the London-718 manuscript of *Kitab-ı Bahriye*

Figure 37: The view of Istanbul in the Berlin-57 manuscript of *Kitab-ı Bahriye.* Retrieved from https://i.pinimg.com/originals/5a/41/6f/5a416f4f86674da0a5a53e9c471ef16c.jpg

Figure 37.1: Detail showing the Valens Aqueduct in the view of Istanbul in the Berlin-57 manuscript of *Kitab-ı Bahriye.*

Figure 38: The Aqueduct of Valens in the1607 Beylik water Supply SystemMap of Istanbul. In, Çeçen, 1991

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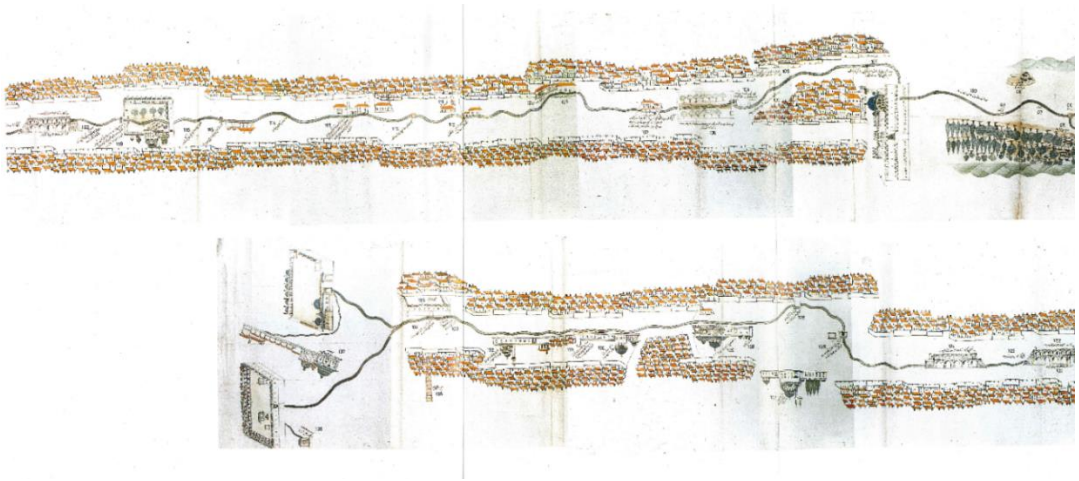

Figure 39: The Map of Köprülü Water Supply System, 1672. In, Çeçen, 1991.

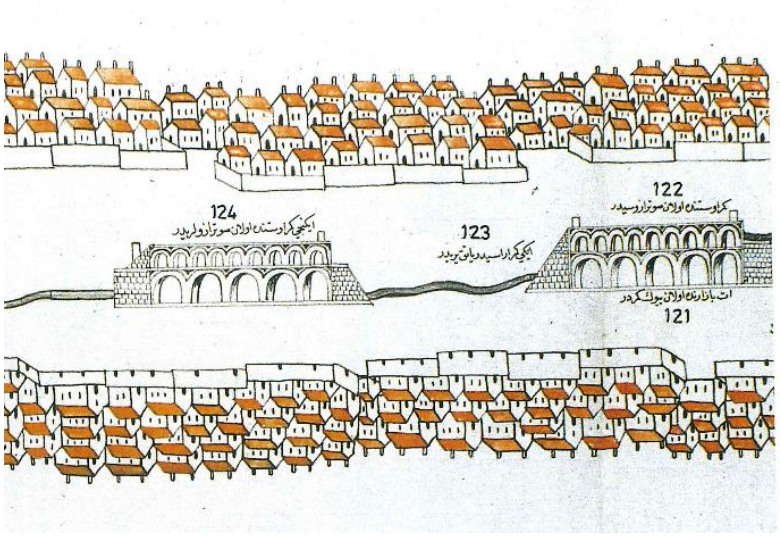

Figure 39.1: The detail showing the Aqueduct of Valens in the Map of Köprülü Water Supply System, 1672.

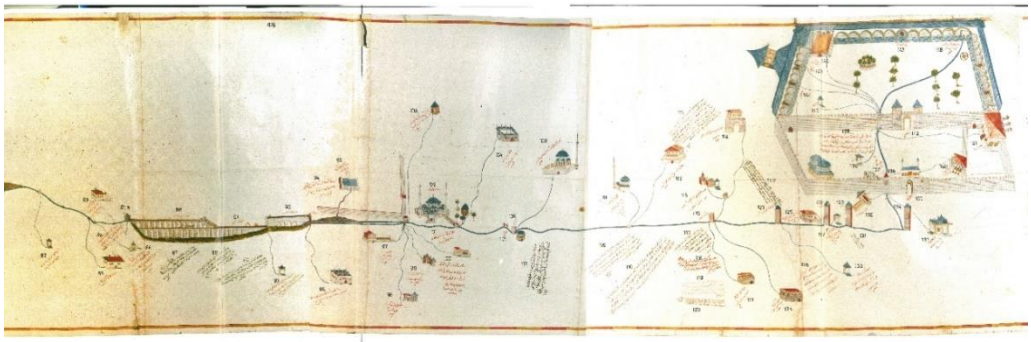

Figure 40: The 1748 Beylik Water Supply Map. In, Çeçen, 1991.

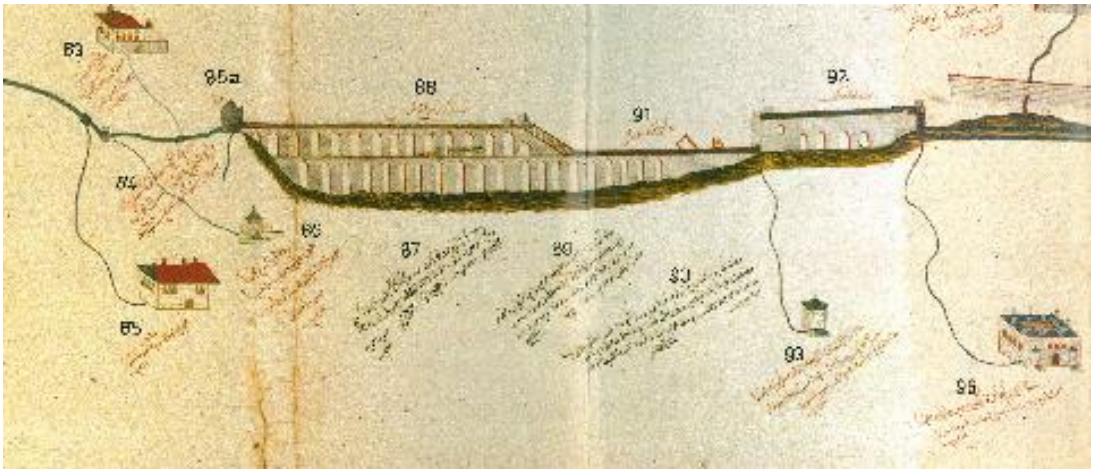

Figure 40.1: The detail showing the aqueduct, the 1748 Beylik Water Supply Map.

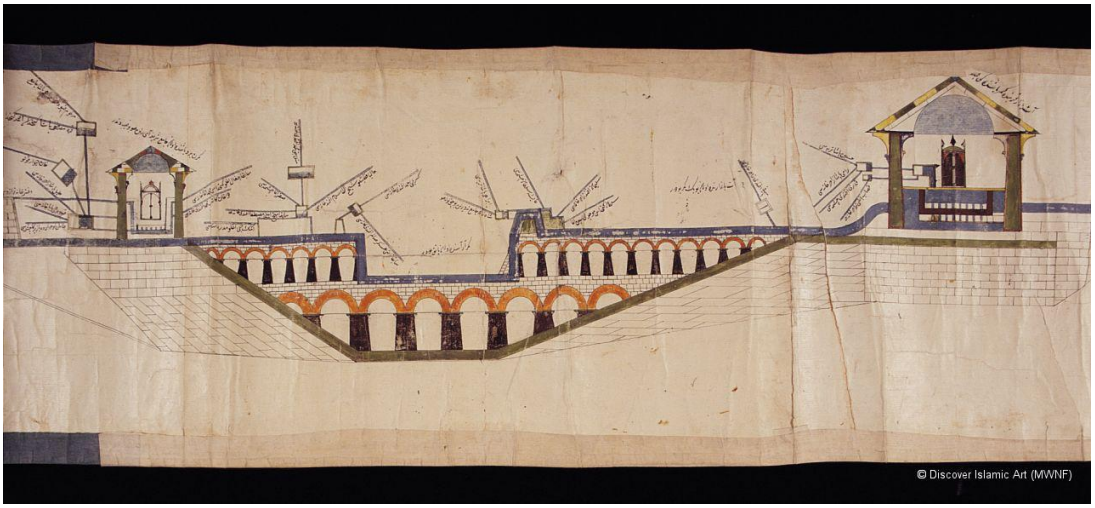

Figure 41: The representation of Aqueduct of Valens on the Map Süleymaniye Water Supply System. In Çeçen, 1991.

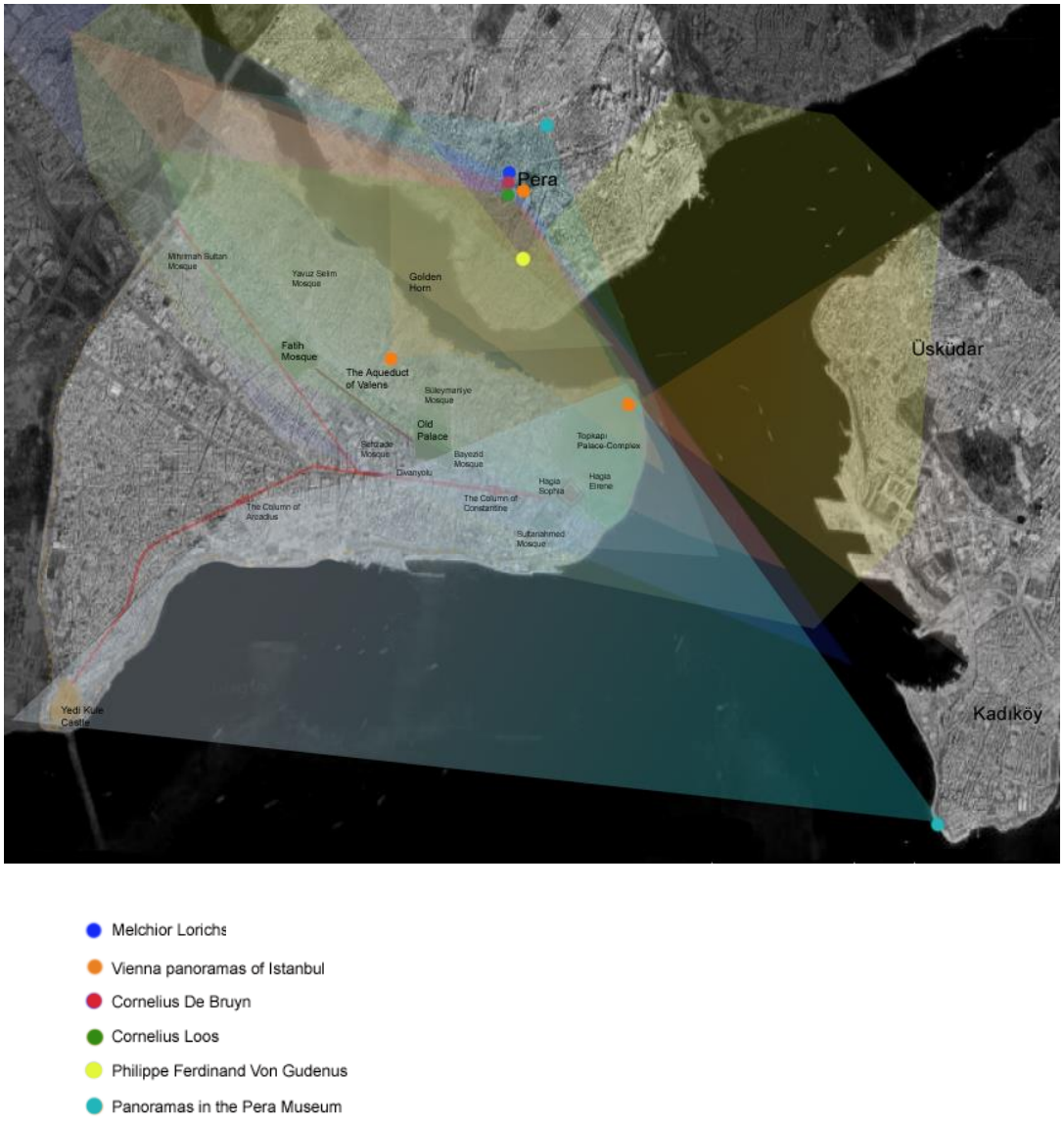

Figure 42: The plan of Istanbul showing the frequently depicted monuments in the panoramas along with the estimated viewpoints and projections of the panoramas. (Including only the original productions). The image by the author.

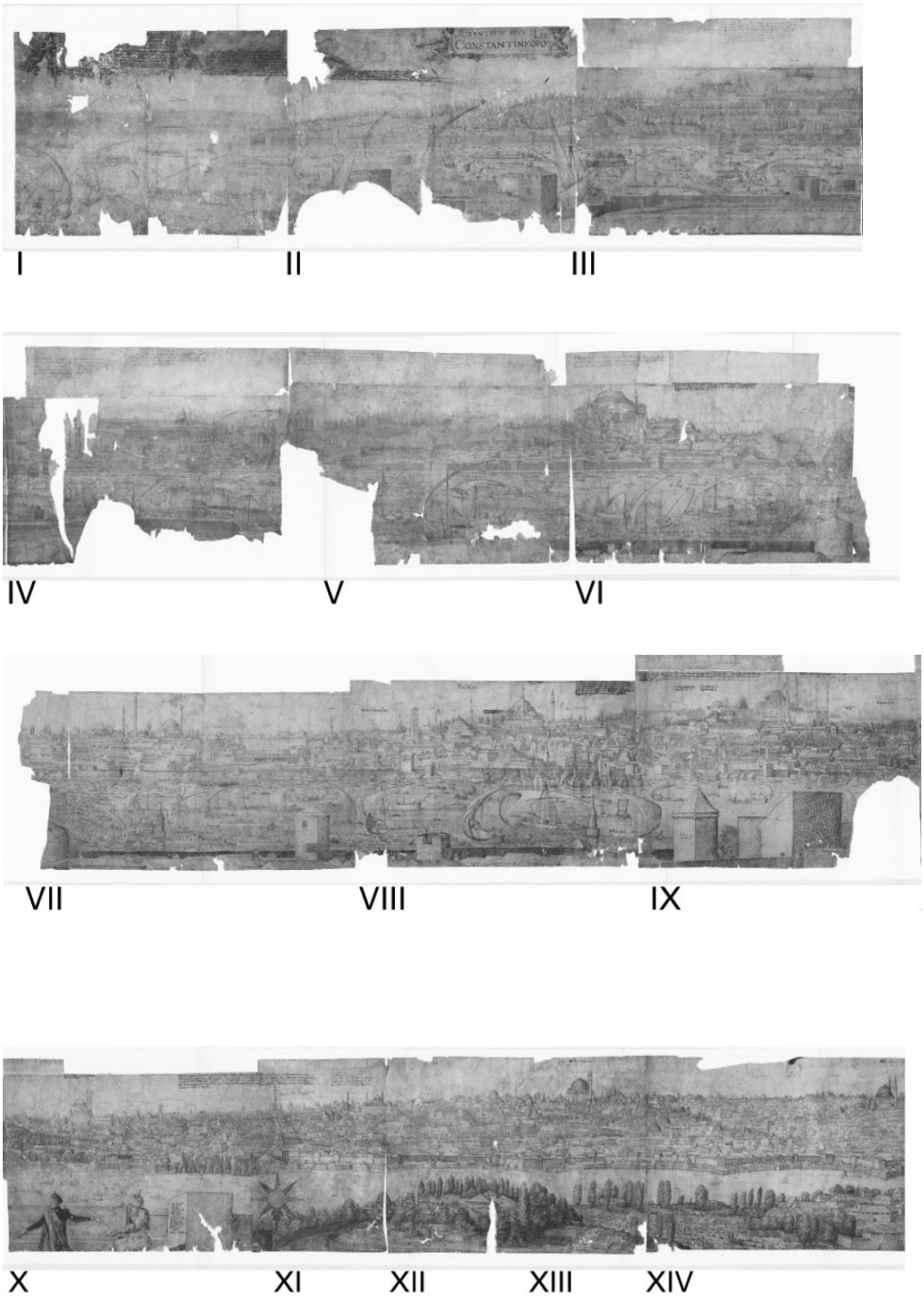

Figure 43: The numbered sheets of the monumental Istanbul panorama of Melchior Lorichs, 1559. In Westbrook, Dark and van Meeuwen, Fig. 1.

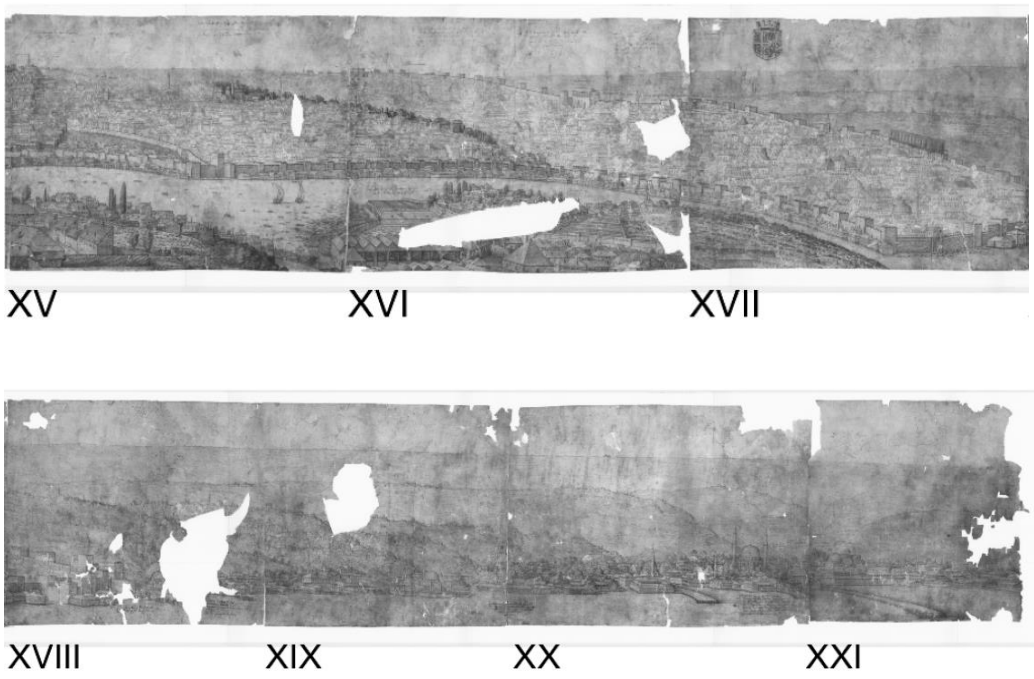

Figure 43: (Continued)

Figure 44: Lorichs, Süleymaniye Mosque, seen from the northeast, 1570, woodcut, 184 x 506 mm (cat. KKSgb8249, Department of Prints and Drawings, Statens Museum for Kunst, Copenhagen)

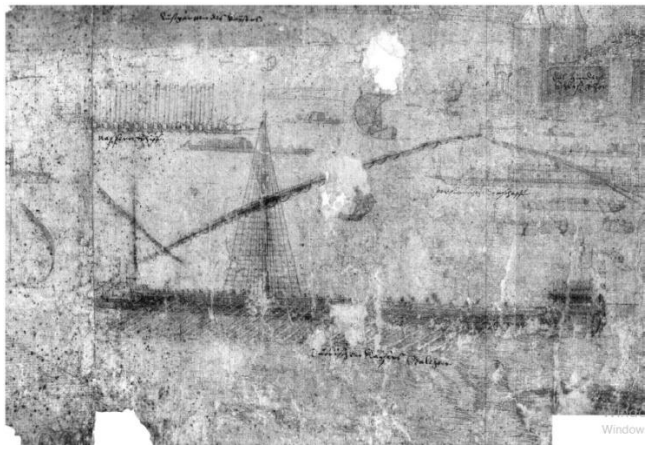

Figure 45: Detail from the Istanbul panorama, the vessel of Sultan Süleyman. Westbrook, Dark, and van Meeuwen, Fig. 9.

Figure 46: The representation of the Aqueduct of Valens in the Istanbul Panorama. Image by the author based on the images from https://commons.wikimedia.org/wiki/Category:Prospect_of_Constantinople_(1559)

Figure 47: The Vienna Panorama of Istanbul. Necipoğlu, *Sinan Çağı*,141.

Figure 48: The Walled city of Istanbul, the Galata view on the second and, the depiction of Üsküdar and Chalcedon. In, Necipoğlu, *Sinan Çağı*, 141.

Figure 49: The detail showing the Aqueduct of Valens in between the monumental mosques of Şehzade and the Fatih. The Süleymaniye mosque is on the extreme left.

Figure 50: The Panorama of Pieter van der Keere. Retrieved from https://www.wdl.org/en/item/14391/)

Figure 50.1: Detail showing the Valens Aqueduct.

Figure 51: Matthaus Merian's Panoramic view of Istanbul. Retrieved from https://www.sanderusmaps.com/en/our-catalogue/detail/168785/%20old-antique-panoramic-view-of-istanbul-(constantinople)-by-m-merian/

Figure 51.1: Detail showing the Aqueduct of Valens.

Figure 52: The colored version of Matthaus Merian's panorama was published by Georg Matthaus Setter. Retrieved from https://www.raremaps.com/gallery/detail/47135/constantinopolis-amplissima-potentissima-et-magnificentiss-seutter

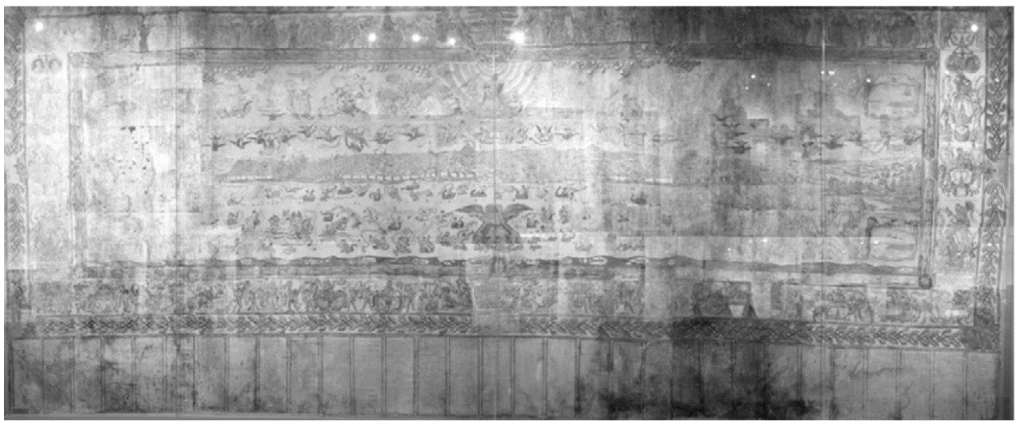

Figure 53: Niccolo Guidalotto da Mondavio. *A Panorama of Constantinople*, 1662. (Private collection, Canada. Currently on display in the Tel Aviv Museum of Art.) In Debby, Fig. 1.

Figure 54: The section showing the Valens Aqueduct in the Panorama of Niccolo Guidalotto da Mondavio (Private collection, Canada. Currently on display in the Tel Aviv Museum of Art.). In Debby, Fig. 3.

Figure 55: The panoramic view of Istanbul by Cornelius Bruyn Retrieved from http://eng.travelogues.gr/travelogue.php?view=58&creator=1132729&tag=10784

Figure 55.1: The detail from the panoramic view of Istanbul by Cornelius Bruyn, showing the Byzantine Aqueduct.

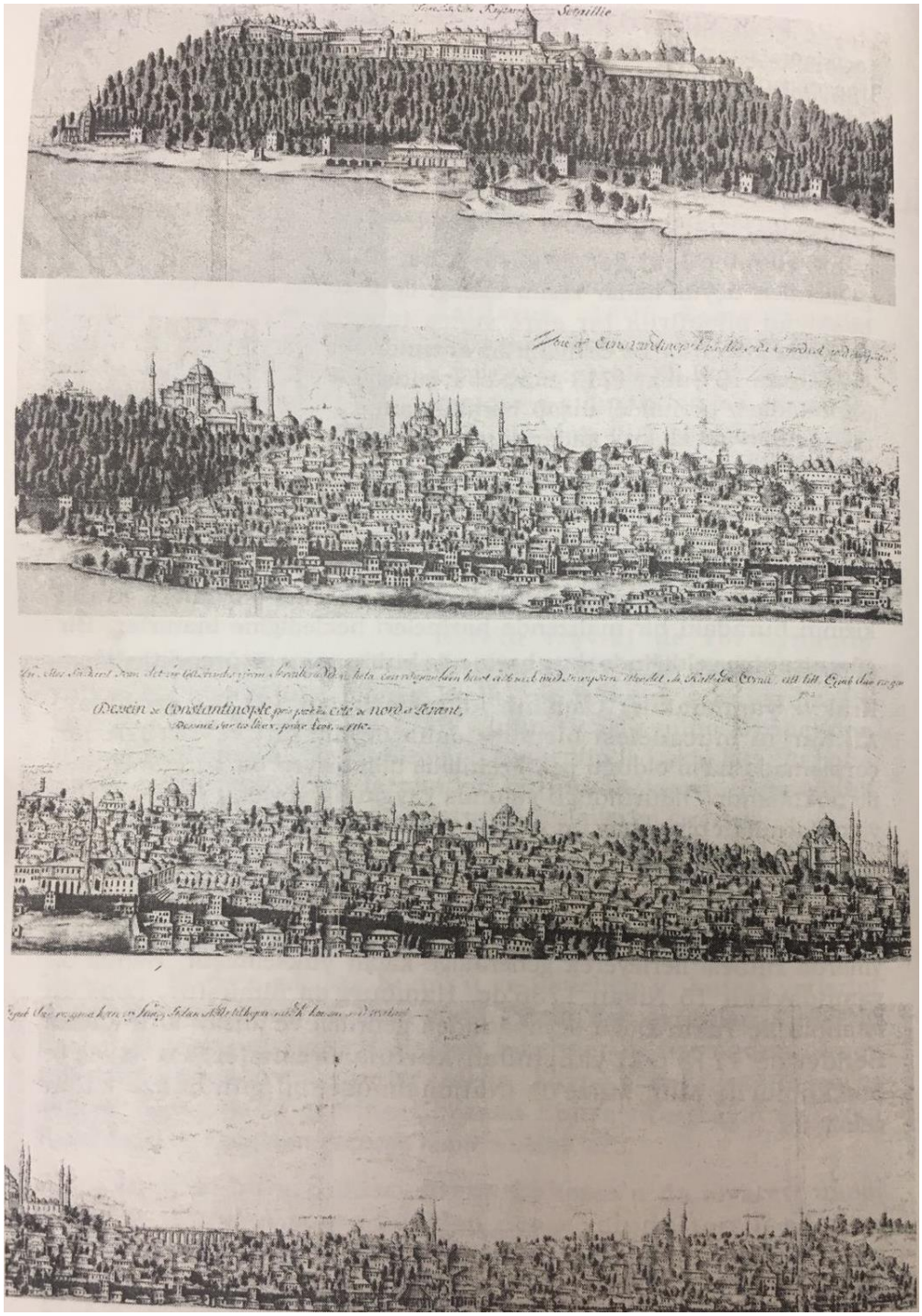

Figure 56: The panoramic view of Istanbul by Cornelius Loos. In, Eyice, (1997), 93.

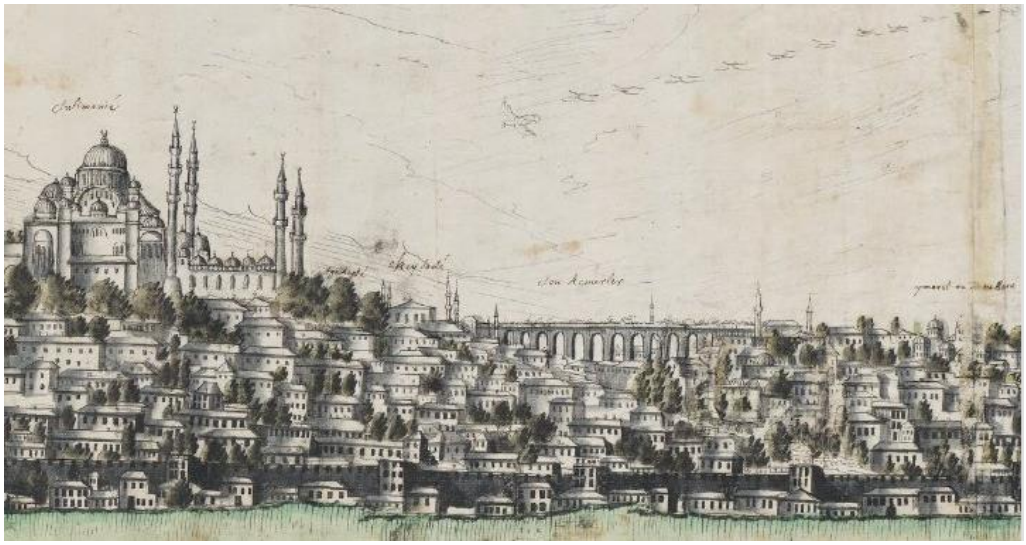

Figure 57: Detail from the panoramic view of Istanbul by Cornelius Loos, showing the Byzantine Aqueduct. Retrieved from https://twitter.com/recepkankal/status/962035604572618753?lang=fi

Figure 58: Detail from the panoramic view of Istanbul by Cornelius Loos, showing the water tower near Hagia Sophia with the inscription of "Sou Terasi". Retrieved from https://twitter.com/recepkankal/status/962035604572618753?lang=fi

Figure 59: The great Istanbul panorama of Philipp Ferdinand von Gudenus. Retrieved fromhttps://tr.wikipedia.org/wiki/Dosya:Philipp_Ferdinand_von_Gudenus_Panorama_of_Constantinople.jpg

Figure 59.1: The Aqueduct of Valens on the von Gudenus's panorama

Figure 60: The 18th century Istanbul Panorama from the high Pera. In, Giampiero and Ölçer, 2009, 119.

Figure 60.1: The detail showing the Aqueduct of Valens in the 18th century Istanbul Panorama.

Figure 61: The 18th century Istanbul panorama from Kadıköy. In, Giampiero and Ölçer, 2009, 119.

B. TURKISH SUMMARY/ TÜRKÇE ÖZET

Valens Su Kemeri, İstanbul'un tarihi katmanlarına atıfta bulunan, günümüze kadar ayakta kalabilmiş Erken Bizans Dönemi eserlerinden birisidir. Tarih boyunca su sıkıntısı çeken bu kent, Bizans başkenti Konstantinopolis'in kuruluşunun on beşinci yıldönümünde İmparator Valens tarafından Trakya Su Yolları'nın bir parçası olarak 371 yılında tamamlanmıştır. İmparator II. Konstantin tarafından başlanmış bu büyük altyapı projesi 240 kilometreye uzanan toplam uzunluğu ile antik Roma döneminde yapılmış en uzun su yolu olarak bilinir. Valens Su Kemeri, günümüzde kullanılan adı ile Bozdoğan Kemeri, şehir içi suyunun dağıtımda kritik bir noktada pozisyonlanır; kentin üçüncü ve dördüncü tepeleri arasında Haliç'e paralel olarak uzanır. Toplam uzunluğu 971 metre olan bu yapı deniz seviyesinden 56-57 metre yukarıdadır; yer yer iki katlı olan kemerleri ile maksimum yüksekliği 28-29 metreye uzanır.

Bu dördüncü yüzyıl su kemeri, sonraki dönemlerde çeşitli restorasyonlar geçirmiş, kentin su kapasitesi Theodosius Hanedanlığı'ndan sonra gelen imparatorlar tarafından korunmaya çalışılmıştır. 15. Yüzyıla gelindiğinde çok sayıda kuşatma ve felaket geçirmiş ve küçük bir merkez haline gelmiş Bizans imparatorluk şehri, Osmanlılar tarafından alınmasından sonra çeşitli restorasyon ve yeniden yapılanma süreçleri geçirmiştir. Su yollarının tamiri ve Valens Su Kemeri'nin yenilemesi de en önemli şehircilik faaliyetleri arasında görülmüş, başkentlerine kesintisiz su sağlamak amacıyla Osmanlı imparatorları büyük yatırımlar yapmıştır. Halkalı bölgesinden çok sayıda yeni su yolları yapılmış, bütün bu kanallar şehir içine dağıtılırken Valens Su Kemerini kullanmıştır. Eski Saray, Topkapı Sarayı, Fatih Camisi gibi büyük yapılar ile beraber, bu kemer şehrin daha çok üst kotlarına su vermiş; alt kotları ise on altıncı yüzyılda II. Süleyman tarafından Mimar Sinan'a yaptırılan Kıkçeşme Su Yolları tarafından beslenmiştir. Valens Su Kemeri inşa edildiği dördüncü yüzyıldan, Osmanlı Döneminin sonuna kadar şehre hizmet etmiş, kent içinde adeta bir can damarı rolü üstlenmiştir.

Bütün bu fonksiyonel rolünün dışında, Valens Su Kemeri önemli bir kentsel eleman olarak karşımıza çıkar. Bizans şehrinde Havariyyun Kilisesi ile Theodosius Forumu arasında uzanan bağlayıcı bir eleman olarak görünür. Aynı zamanda kentin anayolu olan Mese'ye paralel olarak yerleşmiş, bu yolun kuzey kolu boyunca devam eden bir kemerli yolu anımsatmıştır. Erken Bizans şehrinin siluetinde ise Aya Sofya ve imparator sütunları ile beraber yer alan az sayıda belirleyici ögeden biri olmuştur. Şehrin Osmanlılar tarafından alınması ile beraber, çok sayıda dini ve idari yapı kentsel topografyaya eklenmiş, şehrin silueti minareler ve kubbeler aracılığıyla bezenmiştir. Çok sayıda yapı arasında mekânsal algısı azalsa da Valens Su Kemeri şehir manzaralarında görünürlüğünü sürdürmüştür. Bu uzun yapının iki ucu II. Mehmed tarafından Fatih Camisi ve Eski Saray yerleştirilmiş, kentin başlangıçtaki biçimlenmesi kemer etrafında yerleşmiştir. Sembolik anlamlarının dışında, imparatorun bu bölgeyi seçmesi suya yakınlığı ile açıklanmıştır.

Değişmekte olan kentsel topografyada Valens Su Kemeri'nin süregelen yeri bazı yazılı kaynaklarda belirtilse de orijinal ve güncel kaynaklar ile mimarlık tarihi literatüründe bir anıt olarak bahsedilmemiş, hakkında parçalı bilgiler verilmiş ve kapsamlı bir şekilde çalışılmamıştır. Çoğunlukla kemer teknik yönleri ile incelenmiş ve su yolları çalışmalarına dahil edilmiştir. Halbuki, kentsel peyzajda varlığını sürdüre gelmiş nadir yapılardan biri olan bu su yapısının bir odak noktası halinde çalışılması oldukça yerindedir.

Valens Su Kemeri'nin görünümü Osmanlı İstanbulu'nun kentsel topografyasında çok sayıda ve çok çeşitli görseller tarafından temsil edilmiştir. Kuş bakışı görünümler, minyatürler, haritalar, panoramalar, gravürler, tablolar, atlaslar tarafından bu yapının görünümü defalarca üretilmiştir. Fotoğrafçılık ve sinemanın gelişmesiyle birlikte İstanbul'un güncel görsel kayıtları da bu kemeri çok çeşitli araçlar ile temsil etmişlerdir. Fotoğraflar, kartpostallar, belgeseller, televizyon dizileri ve hatta ünlü video oyunlarında İstanbul kentinin bir parçası olarak gösterilmiştir. Kendi günümüzde deneyimleyen kimseler için görsel olarak albenisi olan, büyük Atatürk Bulvarı'nı taçlandıran bir kemerler dizisidir.

Bu çalışma Valens Su Kemeri'nin Osmanlı İstanbul'unun dönüşen kent topografyası içerisindeki rolüne odaklanmıştır. On beşinci yüzyıldan on dokuzuncu yüzyıla kadar geçen üç asırlık süreçte üretilmiş çeşitli görsel dokümanlar üzerinden bu su yapısının bu topografyadaki kültürel, mekânsal ve kentsel ilişkileri incelenmiş ve kemerin zamanın ötesinde olan anıtsallığı değerlendirilmiştir. Tezin ilk kısmında kentin Bizans ve Osmanlı başkenti olarak kuruluşu ve yapısal çevre değerlendirilmiş, tarih boyunca inşa edilmiş su yolları ve şehir içi şebekeleri incelenmiş ve Valens Su Kemeri'nin fonksiyonel olarak önemi ve yapılı çevredeki konumu üzerinde durulmuştur. Daha sonra ise bu çalışmanın temel odağı olan görsel dokümanlar üç ayrı kısımda incelenmiştir. İlk olarak kentin en erken haritalarına odaklanılmış, Buondelmonti ve Vavassore'nin on dört, on beş ve on altıncı yüzyıllar boyunca ürettikleri haritaları ile, George Braun ve Franz Hogenber'in yeniden ürettiği temsiller incelenmiştir. İkinci kısımda Osmanlı tarafından yapılan ve başkenti tanımlayan Matrakçı Nasuh'un minyatürü, Hünername'deki İstanbul haritası ve on yedinci yüzyılda Kitab-ı Bahriye'nin kopyalarına eklenen iki adet büyük İstanbul haritasına yer verilmiş, aynı zamanda bu süreç içerisinde üretilmiş Osmanlı su yolları haritaları incelenmiştir. Görsellerin üçüncü aşamasında ise on altıncı yüzyıldan itibaren ortaya çıkan ve oldukça yaygın bir tarz haline gelen panoramalar konu edilmiştir.

Çalışmanın sonuç kısmında, bütün bu görsel dokumanlar ışığında Valens Su Kemeri'nin İstanbul'un tarihi topografyasındaki rolleri adım adım işlenmiş, bu su yapısının fonksiyonunun ötesinde anıtsal bir statüye kavuşması değerlendirilmiştir.

Osmanlı İstanbul'unu tanımlayan en erken görsel on beşinci yüzyılda üretilen Christoforo Buondelmonti'nin Düsseldorf kopyasında bulunan kuş-bakışı görünümdür. Şehrin yeni sahiplerini ve İslami kimliğini gösteren ilk temsil olmasının dışında, Valens Su Kemeri'nin de en eski tasviri bu belgeye aittir. Kemer İstanbul kentinin tam ortasında, Fatih Camisinden Bizans Akropolünde bulunan Topkapı Sarayı'na doğru uzatılmıştır, büyük gövdesi kolonlu bir caddeyi anımsatır. Eski Saray, Eyüp Camisi, Bizans sütunları, Aya Sofya, Hippodrom göze çarpan yapılardandır. Orta Çağ şehirlerindeki en önemli yapılardan biri olan güçlü ve

yüksek sur duvarları detaylıca resmedilmiştir ancak az sayıda ve sembolik önemi olan yapılar surlarla çevrili boş bir şehirde yüzüyormuşçasına tasvir edilmiştir. Şu açıktır ki, önceki Buendolmonti kuş-bakışı haritalarında olduğu gibi bu görsel de kentsel tasvirlerin erken örneklerindendir ve gerçekçi olmaktan çok ikonlara ve sembolizme önem vermektedir. Bütün bu kompozisyon içerisinde resmedilen Valens Su Kemeri İstanbul'un fetihten sonra yeniden yapılanmasını ve Bizans elemanlarının restore edilip kullanıldığını hatırlatır.

On altıncı yüzyılın başına tarihlenen Vavassore'nin İstanbul haritası kent dokusunun bütününü temsil eder, anıtlar, sur duvarları ve konut yapıları ile daha tamamlanmış bir görseldir. Ancak basıldığı tarihin aksine, II. Mehmet döneminin yerleşim özelliklerini göstermektedir. Bu perspektif-harita Valens Su Kemeri'ni doğu ucundaki su terazisi ile beraber tasvir eder. Bütün kompozisyon, fantastik ögeler barındırsa da yetmiş kadar tanımlanan yapıyı kent içinde ve çevresinde resmeden, birbirleri arasındaki mekânsal ilişkileri gösteren önemli bir görseldir. Devam eden yüzyıllarda sıklıkla kopyalanıp yeniden üretmiş ve on beşinci yüzyıl Osmanlı İstanbul'u ile şehri farklı dönemler boyunca temsil etmiştir. 1550'de Sebastian Münster tarafından yenilenerek basılmış, 1572'de George Braun ve Frans Hogenberg'in *Civitates Orbis Terrarum* atlasında Osmanlı sultanlarının portreleri ile yeniden üretilmiştir. Bütün bu versiyonlarda su kemerinin görünürlüğü devam etmiştir.

İstanbul şehrinin Osmanlı tarafından yapılan ilk tasviri Matrakçı Nasuh'un Sultan II. Süleyman'ın Irak seferini anlattığı kitabında, *Beyan-ı Menzil-i Sefer-i Irakeyn*'de ilk görsel olarak yer almaktadır. Bu sefer boyunca sultanın ordusunun uğradığı ve fethettiği şehirler bu kitapta resmedilmiş, böylece Osmanlı'nın karasal ilerlemesi görseller ile kaydedilmiştir. Bu bağlamda, payitahtı resmeden ilk görsel tahmin edildiği üzere sembolik bir kompozisyondur; on altıncı yüzyıl Osmanlı başkentindeki "önemli" binalar, saraylar, camiler, sultan ve hanedan yapıları tasvir edilmiştir. Aralarındaki hiyerarşi yatay ve dikey akslarla vurgulanmış, birincil sembolik yapılar bu eksenlerde yerleştirilmiştir. Valens Su Kemeri bu eksenin dışında, Fatih Camisi ve Eski Saray'a yakın bir lokasyonda görünmektedir. Her ne

kadar birincil önem taşıyan yapılardan görünmese de imparatorluk başkentini gösteren bu anıtlar koleksiyonu içinde yer almıştır.

Piri Reis'in *Kitab*-ı *Bahriye*'sinin iki ayrı on yedinci yüzyıl versiyonu, London-718 ve Berlin-57, iki büyük İstanbul kompozisyonu sunmaktadırlar. Diğer versiyonlardan daha büyük ölçüde ve yatay olarak ikişer sayfada basılı olan bu haritalar, İstanbul kentinin daha fazla İslamlaştığı bir dönemi gözler önüne serer. Aynı zamanda Akdeniz coğrafyanı belgeleyen bu atlaslara on yedinci yüzyılda başkent tasvirlerinin eklenmesi Osmanlı Devleti'nin bu bölgedeki varlığını temsil eder. Her ikisinde de Suriçi bölgesinde belli başlı anıtlar göze çarpar; Topkapı Sarayı, Sultan Camileri, Aya Sofya, bazı Bizans sütunları ve Valens Su kemeri. Bu yapılar haricindeki bölgeler tekdüze sıra evler ve kırmızı çatılar ile doldurulmuştur. Bütün bu minareler ve kubbeler arasında su kemerinin resmedilmesi onun İslamlaşmış Osmanlı başkentine kesin olarak dahil olduğunun kanıtıdır. Aynı zamanda, kitabın spesifik fonksiyonu içerisinde bu kemer Osmanlı'nın bölgesel imajının bir parçası haline gelmiştir.

Valens Su Kemeri'nin teknik izdüşümleri, Osmanlı Su Yolu Haritalarında tasvir edilmiştir. Bu haritalar farklı su yollarını temsilen on yedi ve on sekizinci yüzyıllarda saray içerisinde bulunan hassa mimarlar ocağı tarafından hazırlanmıştır. Su Nazırı ve diğer teknik elemanların kullanımı için üretilen bu sarmal çizimler çoğunlukla su yolunu kaynağından başlayarak şehir içi dağıtım şebekesine ve önemli görülen binalara olan yoluna kadar resmeder. Bu yol üzerindeki, su kemerleri, su kubbeleri, maksemler ve su terazileri gibi su yapıları gösterilirken aynı zamanda kent içerisinde bulunan çeşitli mimari elemanlar, topoğrafyaya ait özellikler ve kentsel çevre hakkında çeşitli ip uçları ve bilgiler mevcuttur. Yani bu haritalar topografyayı tanımlamak üzere hazırlanmamış olsalar bile su yolu üzerinde ve yakınında resmedilmiş belli başlı anıtlar, özellikle camiler, saraylar, çeşme ve hamamlar hakkında detay vermektedirler. Valens Su Kemeri 1607 yılına ait olan Beylik Su Yolu Haritasında, on yedinci yüzyılda hazırlanmış Köprülü Su Yolları Haritasında, on sekizinci yüzyılda hazırlanmış Süleymaniye Su Yolu Haritasında ve yine bu yüzyıla ait olan Beylik Su Yolları Haritasında görünür. Bütün bu teknik

haritalarda ön görünüşten iki boyutlu olarak çizilmiştir fakat bu sayede cepheden bazı bilgiler verir. Diğer görsel tasvirlerde görünmeyen kemerin on altıncı yüzyıldaki büyük depremde (Kıyamet-i Şuğra) yıkılmış olan kısmı teknik haritalarda görünmekte ve yazı ile belirtilmektedir. Bundan ayrı olarak şematik olarak tasvir edilmiş bu kemerin kent içinde süre gelen operasyonel önemi bu mimari belgelerde açıkça okunmaktadır.

Bu tezin kapsamındaki bir diğer grup olan panoramalar her ne kadar on dokuzuncu yüzyılda "panorama" adını almış ve 360-derecelik açı ile üretilmiş bir dairesel bakış açısını temsil etse de Osmanlı başkentini içeren bu tür tasvirlerin ortaya çıkışı çok daha eskiye dayanmaktadır. On altıncı yüzyılda kentte artan inşaat faaliyetleri ile İstanbul'un tepeleri üzerine konumlanan sultan camileri kentin kuzey sırtlarında tasarlanmış bir ufuk çizgisi oluşturdu. Bu hareket, kente bakış açısını bir anda Haliç tarafına, kuzey yönüne döndürdü ve yeni fakat her dönemde önemini devam ettiren bir siluet kazandırdı. Bu, İstanbul şehrinin yüzyıllar boyu devam edecek olan anıtsal panoramasıydı. İki yüz yıllık süreç içerisinde dokuz ayrı İstanbul panoraması üretilmişti. Bunlardan ilki, on altıncı yüzyılda, 1559 yılında, Sultan II. Süleyman döneminde İstanbul'da bulunan Melchior Lorichs tarafından hazırlanan neredeyse 12 metreye uzanan oldukça detaylı ve kapsamlı bir panoramadır. Artist, Üsküdar'dan başlayarak, Suriçi bölgesi, Galata ve Eyüp'ü içerisine alan bu yatay görsel kente Galata sırtlarından bakar. Topkapı Sarayı başta olmak üzere, kuzey tepelerinde bulunan anıtsal camiler, Atik Ali Paşa, Beyazıt, Süleymaniye, Şehzade, Fatih ve Selim camileri ile Aya Sofya görünür yapılardandır. Valens Su Kemeri su terazisi ile birlikte Fatih ve Şehzade Camilerini bağlamak suretiyle, üçüncü ve dördüncü teperler arasında çizilmiştir. Kemerin uzun gövdesi ve yüksek kemerleri ile İstanbul panoramasında göze çarpan bir elemandır. Lorichs'in bu kapsamlı çizimi çok sayıda Bizans ve Osmanlı yapısını tasvir etmiştir ancak Valens Su Kemeri kent içindeki hissedilebilir yerini korumaktadır.

Bir diğer on altıncı yüzyıl panoramik resmi Viyana Kütüphanesinde bulunan anonim panoramalar grubudur. Üç ayrı yatay sayfada, İstanbul Galata cihetinden tasvir edilmiş, Galata İstanbul tarafından çizilmiş ve Üsküdar ve Kadıköy karşıdan

resmedilmiştir. Galata ve Üsküdar mahallelerinin bu kadar eski bir dönemde böylesine detaylı ve panoramik bir tasviri olmaması açısından bu üçlü görsel büyük önem taşımaktadır. Aynı zamanda renklendirilmiş olan bu kompozisyon on altıncı yüzyıldaki yapı malzemelerini ve kent içerisinde yeşil alanları da göstermektedir. İstanbul kenti içerisinde, imparatorluk sarayları, Yedikule, Aya Sofya ve Aya İrini, Konstantin'in Sütunu, Sultan camileri ve Valens Su Kemeri görünen elemanlardandır. Kemerin taş olan yapısı rengi itibariyle açıktır. İki tepe arasında, vadi üzerinde gerçeğe çok yakın şekilde tasvir edilen bu kemer on altıncı yüzyıl panoramasında dikkat çeken bir elemandır.

On yedinci yüzyıl panoramaları tasvir şekilleri ve bağlamları bakımından birbirlerinden ayrılırlar. Bu yüzyıl Osmanlı Devleti'nin Batı ile daha sıkı ilişkiler kurmaya başladığı ve çok sayıda seyyah ve artistin İstanbul başta olmak üzere, Osmanlı coğrafyasında seyahat ettiği, dolayısıyla çok sayıda edebi ve sanatsal eserler ürettikleri bir dönemdir. Georges de la Chapelle, Guillaume-Joseph Grelot, Cornelius de Bruyn ve G. H. Van Essen bu dönemde İstanbul'a gelmiş tanınmış sanatçılardan bazılarıdır. Bu yüzyıl başında Pieter Van der Keere'nin İstanbul panoraması, 1616 yılında basılmıştır. Alman sanatçı Alman haritacılığında Altın Çağ olarak adlandırılan bir dönemde eserini vermiştir; aynı zamanda çok sayıda kent tasvirleri ve Köln, Amsterdam, Hamburg, Paris, Cologne gibi şehirlerin panoramalarını yapmıştır. İstanbul panoraması detaylı bir açıklama metni içerir; bu yazı Bizans ve Osmanlı döneminde inşa edilmiş eserlerin kaydını tutar. Panoramada Üsküdar, Galata'nın güney uçları ve İstanbul şehri tasvir edilmiştir. Sarayburnu, Topkapı Sarayı, Konstantin'in Sütunu, Atik Ali Paşa, Süleymaniye, Beyazıt ve Şehzade Camileri şehrin sırtlarında yerini almıştır. Ancak başlıkları ve tasvir edilen bazı camiler birbirleri ile uyuşmamaktadır. Valens Su Kemeri üçüncü ve dördüncü tepeler arasında doğru bir şekilde konumlandırılmış ve adlandırılmıştır. Ancak çizimin genelinde çok sayıda topografik hataların mevcut olması, artistin bu şehre gelmediğini ve bu çizimin daha önceki bir görsele dayanılarak oluşturulduğunu düşündürmüştür. Su kemerinin bu panoramada bulunması, kopya bir kompozisyon

da olsa, on yedinci yüzyıl İstanbul kentinin ayrılmaz bir parçası olduğunu göstermiştir.

Bir diğer on yedinci yüzyıl tasviri olan Istanbul Panoraması İsviçreli grafiker, Matthaus Merian tarafından üretilmiştir. Şehre kuzeyden bakan bu panorama Galata mahallelerinden detaylı tasvirler yapmış, insan figürleri kullanarak daha yerel ve günlük bir tablo çizmiştir. Arkada Haliç boyunca uzanan İstanbul kentinde ise anıtsal yapılar, sultan camileri ve Aya Sofya abartılarak resmedilmiştir. Minareler, kubbeler ve be kütleler olduğundan daha büyük ve uzun çizilmiş, İstanbul'un silueti bu elemanlar tarafından domine edilmiştir. On yedinci yüzyıl başında inşa edilen Sultan Ahmed Camisi ise çizimde gösterilmemektedir. Bu durum panoramanın daha önceki bir kent çizimine bakılarak hazırlandığı düşüncesini desteklemektedir. Bizans yapıları arasında Hipodrom, Bizans sütunları, Tekfur Sarayı ve Valens Su Kemeri görünür yapılardandır. Kemerin küçük gövdesi iki koca camii arasında, Şehzade ve Fatih Camileri arasında daha da ezilmiş şekilde resmedilmiştir. Kocaman bir panorama içerisinde, ölçeği kaçmış yapılar arasında küçük kemerli bir yapı olarak yerini almıştır.

1662 yılında, İtalyan rahip Niccolo Guidalotto özgün bir İstanbul panoraması hazırlamıştır. Rahip çeşitli sebeplerden ötürü Osmanlı'ya karşı bir haçlı seferi düzenlenmesini istemektedir ve bir propaganda aracı olarak kıyamet sahneleri ile bezenmiş bir panorama hazırlamış ve Papa VII. Alexander'a sunmuştur. Böylece istisnai bir bağlamda hazırlanmış İstanbul tasviri ve misyonuna dair bir açıklama metni yayınlanmıştır. Rahibin tasvirinde kentsel peyzaja yaklaşımı farklı kurallar içermektedir; oldukça politik ve dini amaçlar güden bu temsilde, kıyamet sahneleri ve yazıları, melekler, mitolojik öğeler ve Barok ve Rokoko süslemeler İstanbul kentine eşlik etmektedir. Aynı zamanda üst çerçevede Tanrı'nın temsili ve Hristiyan inancı içerisindeki bazı dini öğeler bulunmaktadır. Bu bağlam içerisinde İstanbul kenti on yedinci yüzyıl panoramalarına uygun şekilde, kuzey yönünden resmedilmiş, üzerinde gösterilen eserler doğru başlıkları ile dikkatlice konumlandırılmıştır. Valens Su Kemeri, Sultan Camileri ve Aya Sofya ile birlikte kent içerisinde tanınır elemanlardandır. Bu dönemde hala varlığını sürdüren bir Bizans yapısı olan bu

kemerin, Hristiyan gücünü göstermek amacıyla üretilmiş panoramada bulunması tesadüf değildir.

On sekizinci yüzyılın başında üretilmiş iki ayrı panorama kenti yeniden gerçeğe uygun bir kompozisyon içerisinde verirler. Cornelius De Bruyn'un 1698 tarihli İstanbul tasviri ile Cornelius Loos'un 1710 tarihli panoraması benzer bir yaklaşımla kuzeyden İstanbul'a bakarlar fakat Galata görünümlerini kompozisyonlarına dahil etmezler. İki panorama da daha çok İstanbul kentinin Haliç boyunca uzanmış uzun ve yatay topografyasına odaklanırlar. Sarayburnu'ndan Kara Surları'na kadar olan bölgede Topkapı Sarayı, Süleymaniye, Beyazıt, Fatih, Atik Ali Paşa Camileri, Aya Sofya, Aya İrini, Bizans Sütunları ve Valens Su Kemeri görünür ögelerdendir. Bruyn'un panoramasında kemerin yatay ve kalın gövdesine vurgu vardır. Loos'un panoraması ise kemeri bütün diğer anıtlar gibi daha jenerik bir şekilde çizmiş aynı zamanda da yatay değil daha dikey ve yüksek gövdeli bir eleman olarak gösermiştir. Her iki görselde de on sekizinci yüzyıl Osmanlı başkentine ait çok sayıda detay mevcuttur. Ayrıca Bizans su kemeri etrafındaki elemanlarla ve doğru pozisyonda resmedilmiştir.

Bir diğer görsel doküman, Philipp Ferdinand von Gudenus tarafından Galata'daki İsveç elçiliğinden, on sekizinci yüzyılda çizilmiş ve oldukça tanınan bir İstanbul panoramasıdır. Neredeyse on dokuzuncu yüzyılda üretilmiş 360 dercelik panoramalar gibi kenti dairesel bir açı ile resmetmiş, en solda Dolmabahçe kıyılarından başlayarak en sağda Okmeydanı'na kadar olan bölgeyi resmetmiştir. İstanbul kenti Galata mahallelerinde görünen konut yapısının ardında, Haliç boyunca görünmektedir. Bu detaylı panoramada, on sekizinci yüzyıl İstanbul'unda birbirine benzer konut yapısı hakim olarak görünür. Bu kentsel doku içerisinde, tarihi yarımadanın ucunda Topkapı Saray-kompleksi vardır; Valide Han, Mısır Çarşısı, Yedikule ve Sülymaniye Camisi ayrıca belirtilmiş yapılardandır. Çok sayıda sultan camileri bu kompozisyonda dikkat çeker; İstanbul neredeyse tamamen 'Osmanlılaşmış' bir kent olarak tasvir edilmiştir. Yine de Bizans Sütunları, Tekfur Sarayı, Aya Sofya ve Valens Su Kemeri sınırlı sayıda gösterilmiş Bizans yapıları arasındadır. Su kemeri yapılar üzerinde uzun ve kalın bir gövde ile görünür ve

ufukta önemli bir yer kaplar; bu kalabalık panoramada ilk bakışta göze çarpan elemanlardan birisidir.

On sekizinci yüzyılda üretilmiş ve bu çalışma kapsamında incelenen son görsel Pera Müzesi'nde bulunan bir çift panoramik tablodur. İstanbul kentini hem kuzeyden Haliç boyunca resmeder hem de Kadıköy cihetinden şehre bakarak Marmara kıyıları boyunca uzanışını gösterir. Kentin güney profilini göstermesi açısından eşsiz bir görseldir. İki taraftan da baktığı için çok sayıda yapıyı belgeler; Topkapı Sarayı, Aya Sofya, Konstantin'in Sütunu, Yedikule, Kara Surları ve Valens Su Kemeri belirgin anıtlardandır. Kente Galata sırtlarından bakılan birinci görselde Valens Su Kemeri tasvir edilmiş, iki tepe arasında uzanışı diğer yapılarında tasvir edildiği şekilde bir siluetmişçesine çizilmiştir.

Üç ayrı kısım boyunca incelenen dört adet Avrupalı harita, üç adet Osmanlı tasviri, dört adet su yolu haritası ve dokuz adet panoramik görüntüden sonra, sonuç bölümünde Valens Su Kemerinin İstanbul kentinin topografyasındaki rolünü açığa çıkarmaktadır. Kentin ilk görselleri ile beraber görünür olan Su Kemeri, fethi ve Osmanlıların kentin yeniden inşasını temsil ettiği açıktır. Bu sebeple bu su yapısı pratik rolünün ötesinde sembolik bir statü kazanmış, bu yeniden kurulmuş şehrin simgelerinden birisi haline gelmiştir. Osmanlı eliyle üretilen minyatür haritalar ve kuş bakışı çizimler ise bir Bizans yapısı olan Valens Su Kemerini Osmanlı'nın imparatorluk peyzajına dahil etmiş, cami, han ve saray gibi yapılarla bezenmiş kentsel mekânı bu kemer ile beraber tasvir etmiş ve hatta tamamen İslami bir karakter kazanan on yedinci yüzyıl topografyasında göze çarpan nadir kentsel elemanlardan birisi olarak göstermiştir. Haliç boyunca anıtsal bir siluetin oluşması ve kente bakış açısının kuzeye çevrilmesi ise kentin kuzey sırtlarında yer alan Valens Su Kemeri'nin görünürlüğünü daha da artırmış, orijinal olarak üretilen ve İstanbul'un kuzey profilini çizen her panoramada kemer tasvir edilmiştir. Bu yapının ısrarla kent görünümünde yer alması, kent peyzajı içerisinde kalıcı bir eleman olduğunu vurgulamış aynı zamanda da İstanbul'un anıtsal siluetinin ayrılmaz bir parçası haline gelmiştir. Son olarak birçok yazılı kaynakta da geçtiği üzere Valens Su Kemeri kente yüzyıllar boyunca "hayat suyunu" getirmiş, bu imparatorluk

şehrinin en büyük eksiği olan su sıkıntısını giderebilmek adına hem Bizans hem de Osmanlı dönemi boyunca imparatorlar ve sultanlar tarafından büyük harcamalar ile çok sayıda restorasyon geçirmiştir. Valens Su Kemeri'nin anıtsal varlığı kentsel yaşam için vazgeçilmez bir fonksiyonu olması ile karşılıklı bir ilişki içerisindedir ve bu sayede sayısız kent tasvirinde gösterilen elemanlardan birisi olmuş, kente hayat veren bir nehir haline gelmiştir.

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