ITU A|Z • Vol 21 No 2 • July 2024 • 305-318

The tower of Belisarius: A case study of a Byzantine ruin during the Ottoman period

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Received: September 2022 • Final Acceptance: February 2024

Abstract
The Tower of Belisarius was constructed on the rocky seafloor at the mouth of the Port of Theodosius in Constantinople. In contrast to standard monumental urban structures, it formed one of the most striking maritime "landmarks," representing a fixed point in the harbor installation. Using the tower as a case study, this article provides an overview of how a Byzantine structure surrounded by the sea survived in İstanbul until the end of the nineteenth century. Its principal argument is that the structure preserved its residual form over time, even after a large-scale urban development project in the 1760s which reshaped the landscape in which the tower was located. The article combines primary sources and comparative publications with historical maps to locate the tower's original position, first at the mouth of the Port of Theodosius and then in the infilled harbor site outside Langa Yenikapı. By adopting a diachronic viewpoint, it addresses a set of related issues: the tower's location in the harbor's configuration; the construction of the apocryphal story of Belisarius and its association with the tower; and finally, the structure's integration into the built-up area and how razing it to the ground.

Keywords
Byzantine structures, Infilled harbor, Maritime towers, Survival of ancient remains, Yenikapı Harbor.

doi: 10.58278/0.2024.51

1. Introduction

On the southern shore of Byzantine Constantinople there were, at one time or another, several artificial harbors in which ships found refuge from storms. These were, to a great extent, artificial extensions of some inlet of the city's southern coast. The harbor site where the Port of Theodosius was constructed sometime before 425 in the Twelfth Region, on the southern base of the seventh hill, was the most remarkable for its size and fame. The breakwater, the sea walls, the entrance and the tower built in the sea defined the principal architectural features of the harbor's southern part, forming the terrestrial limits of the city. Alexander Van Millingen states that the harbor was enclosed on its southern side by a twelve-feet thick wall made up of masonry and extending from the Gate of Davutpaşa eastwards for about 436 yards, and from there northwards for 327 yards. For the military defense of the harbor, the sea walls between the sites of Davutpaşa and Yenikapı were constructed on the breakwater. The entrance was located between the end of the breakwater and the site of Yenikapı and was guarded by a tower built in the sea (Van Millingen, 1899, p. 298).

Once called *Thema* in the Byzantine time, *Kulle-i Hamza* by the Turks in the sixteenth century and *Tower of the Priest* by the Armenians in the mid-seventeenth century, the structure went by the name Tower of Belisarius only after the 1680s (Grelot, 1683, p. 68; Gyllius, 1729, p. 257; Kömürciyan, 1988, p. 3; Ülkekul, 2013, p. 86). Now as a relic under the hidden layers of the infilled harbor of Theodosius, the Tower of Belisarius represents an interesting case study of how a Byzantine ruin deserted in the sea became integrated into the built-up area during Ottoman times and preserved its residual plan and physical footprint over the centuries.

Modern commentators have been unable to identify the precise perimeter of the Byzantine layer of the enclosure. To mark the specific location of the southern limits of the ancient harbor site, one needs to focus on the tower built out at sea a short distance from the entrance. The central purpose of this study is to present historical, architectural and morphological data associated with the Tower of Belisarius, and based on this data to answer a number of questions: Is it possible to identify the specific location of the tower? How was the name of a fallen commander become associated with the tower? Did the tower function as part of the port's overall design? How was it absorbed into the built-up environment and how does it fit into the broader historical process of urban terrestrial expansion into the sea?

The tower was installed at the entrance of the harbor site to oversee the flow of ships into the city (Gyllius, 1729, p. 257). Therefore, it functioned as part of the harbor's installations and constituted a principal reference point to designate the perimeter of the Byzantine layer of the enclosure. Built on the rocky seafloor, the small-sized stone structure had much to offer to the city during Ottoman times. At first a storage space (Bilici, 2004, p. 191), the tower served the public by providing protection from the hazard of fires. After the Ottomans filled in the harbor site and constructed a neighborhood there after 1760 (Hovhannesyan, 1996, pp. 8–9), the tower became fully integrated into the newly formed urban environment. It functioned as a bakery for some time and its empty shell remained in place until the 1890s.

Research on the architectural and archaeological history of the Tower of Belisarius has been hampered by a number of shortcomings. Except for a few anecdotal references to the tower, modern commentators have tended to privilege the mythical Belisarius over the artifact itself. There has also been little attention to establishing the precise location of the tower in the harbor complex, its integration into the newly-formed neighborhood and the process by which it got its name. A problematic approach which developed in the literature identified the tower as a component of the sea walls while providing no definitive location for it. This view originated with the classic study of the Marmara Sea walls by Feridun Dirimtekin, which attributes the name Belisarius to two towers, identified

as no. 35 at the south of Sidera Porta (Çatladıkapı) and no. 62 at the west of Langa Yenikapı (Dirimtekin, 1953, pp. 12, 38). Subsequent research repeated and perpetuated this interpretation (Ginalis & Ercan-Kydonakis, 2021, pp. 43–44; Heher, 2021, pp. 114–118). Wolfgang Müller-Wiener reduced the number of Belisarius towers to one, yet marked it as part of the sea walls (Müller-Wiener, 2001, p. 225).

Only one comprehensive study of this important maritime "landmark", *Belisarius Kulesi* by Selçuk Mülayim, has challenged the secondary sources that identify the tower as part of the Marmara Sea walls and has explored its actual character. Mülayim shows that the tower was constructed on a rocky seafloor near the Langa Yenikapı and was detached from the Marmara Sea fortifications, thus establishing its status as a free-standing structure (Mülayim, 2015, p. 92). Basing his arguments on historical engravings and maps, he concludes with confidence that the tower did not form part of the Marmara Sea walls; rather, it was a component of the harbor installations that was built further out on the seafloor to protect the entrance into the harbor. He points out that the tower had a square plan with a battlement on top and that it was replaced by the Yenikapı train station around 1874 (Mülayim, 2015, pp. 92–93).

Yet, a number of questions remain to be addressed. First, the locations of the tower, the mouth of the port and the breakwater need to be identified. Second, we are still not well-informed about the history of the tower and the harbor site after the 1760s, and particularly about the ways in which the tower figured in its new urban setting. Finally, the date of the tower's demolition requires a correction.

To address these points, the first section focuses on the tower itself and seeks to integrate it into its broader context, viewing it as a fixed point in the process of urban growth into the sea. The following two sections examine the construction of the apocryphal story of Belisarius and how it became associated with a Byzantine ruin. They also summarize the available data on the structure. The fourth section explores the place of the tower in the neighborhood built in the newly infilled harbor site outside Langa Yenikapı, and addresses its ultimate fall into ruin. This section attempts to identify the exact location of the tower. That brings us to the interdisciplinary research methodology employed, which combines the literature on the subject with original archival sources, and connects the available data through the Geographic Information System (GIS) to answer spatial questions relating to the tower's location.

2. The tower as part of the harbor installation

The harbor where the Port of Theodosius was constructed is one of the largest and exemplary archeological sites of the city along the Sea of Marmara coast. The harbor basin stands as a prominent example of the city's steady growth toward the sea and the rehabilitation of the southern coastline of intramural İstanbul. Cyril Mango has noted that the shoreline of İstanbul and its surrounding areas gradually encroached on the sea over time, enlarging the city at the expense of the sea. Commenting on the description of the city of Byzantium by Dionysius, he seems to be convinced that having a flat surface and sloping down gently towards the sea, two deep bays occupied the north and south sides of the isthmus, or neck, which connected the city to the mainland (Mango, 2001, pp. 17–18).

On the south bay, where the rivulet Lycus emptied its water into the sea, once lay one of the major harbor sites, the Port of Theodosius. There is no specific date for the construction of the harbor; yet, it is known to have been installed sometime before 425. Mango ascertains that the area was still functioning into the tenth century as a shelter for ships (Mango, 2001, p. 25). Citing Pachymeres, Scarlatos Byzantios states that the harbor was filled in completely during the Latin occupation of the city. Around 1263 or 1269, the emperor re-activated part of it: "[he] surrounded the area with huge boulders, he deepened the water within by pouring an alloy of quicksilver; he also constructed a roof for the docking of

Figure 1. *Plan of the Shoreline around Langa Gardens by Arthur Henderson (Van Millingen, 1899, PL. I).*

vessels and supplied the harbor's outer entrance with a double gate made of iron" (Byzantios, 2019, pp. 402–403). Aleksandar Shopov points out that at the end of the thirteenth century, silting of the harbor site was completed, and it was replaced by the Langa Gardens. In 1294–1301, the gardens were endowed for the Convent of Lips in Constantinople (Shopov, 2016, p. 309).

The ancient harbor site, now infilled with the earth and converted into market gardens, created the infamous city landmark called Langa Gardens under Ottoman rule, and survived through the 1950s. In the mid-sixteenth century, Langa Gardens became *vakf* property endowed for the Süleymaniye Mosque. The deed of endowment, dated 1557, highlighted the walls that enclosed the harbor site, indicating the morphological integrity of the enclave (Yılmaz, 2008, p. 60).

A detailed historical, topographical and architectural description of the enclave by Petrus Gyllius notes that the harbor was protected by the city walls on the southern side. It contained a pool and very few fruit-trees, but abundant cucumbers and potherbs. Gyllius' testimony lays out the design of the ancient port and its principal borders marked by the walls:

> *The Mouth of the Port stood eastward, from whence the pier extended itself westward, in a direct line, where at present stand the Walls of the City. The pier was twelve foot in thickness; and, as I found by walking it, 'twas six hundred of my paces in length. 'Tis now entirely ruined… I discovered by the pier, and situation of the place, that was above a mile in compass. In the mouth of the port, not altogether unfit for ships at present, without the City Walls, you still see a fortress in its ruins, surrounded by the sea. The unknown writer of the Empire of Constantinople asserts, that it was first called Thema, afterwards the Forum of Theodosius; … (Gyllius, 1729, pp. 256–257).*

Despite its unclear association with the tower, the Greek term *thema* refers to a provincial circumscription in the Byzantine administrative structure (Van Tricht, 2011, p. 122). Gyllius describes the tower in relation to the ancient Port of Theodosius, upon which the Langa Gardens were laid out. He treats it as a component of the harbor. His description establishes two important points about the tower: it was located at the mouth of the port, at the point where the shoreline returns inland to the north; and it was a free-standing structure erected in the water. This is the most specific account to have reached us of the ancient landmarks (the pier, city walls and tower), with measurements of the pier and the configuration of the constituent rem-

nants of the harbor established personally *in situ*. This is the structure praised by Gyllius as a former "pier" and then the "wall" constructed upon it (Figure 1.). In order to identify more precisely the location of the tower, we need to look more closely at the design of harbor installations on the southern coast of İstanbul.

Vitruvius' great handbooks on architecture, published in the late first century BC, include detailed information relevant to the construction and design of harbors, breakwaters and shipyards. Vitruvius extolls natural harbor sites "with projecting capes or promontories which curve or return inwards by their natural conformation" as "obviously of the greatest service" (Vitruvius, 1914, p. 162). The formation of the harbor characterized by Vitruvius enables the building of towers on each side of the entrance of the site, wherefrom chains might be suspended across for monitoring the flow of maritime traffic. According to him, if the topography does not provide curved or angled recesses, the harbor must be enclosed by extending a breakwater across the open roadstead (Vitruvius, 1914, pp.162–163; Oleson, 2014, pp. 20–21).

The description above shows many common features with the major harbors of Constantinople. Scarlatos Byzantios calls this form of harbor "bracelet." He argues that "initially ancient harbors primarily consisted of two protective parapets protruding into the water in a manner resembling a hoof." The harbors hosted several piers, from where the wings/ breakwaters extended into the sea and molded the *de facto* enclave of the port (Byzantios, 2019, pp. 190–191). Sealing the "bracelet" depends on the construction of the towers at the end of the parapets and the drawing of chains across the towers.

Following this line of thought the same conclusion may be reached about the Harbor of Theodosius. The "pier" described by Gyllius corresponds to the maritime concrete structure which extends about six hundred paces on the east-west axis and marks the southern border of the harbor site. It was a twelve-foot-thick structure upon which city walls were constructed. At the eastern end of the line stands the mouth of the harbor (Gyllius, 1729, pp. 256–257; Van Millingen, 1899, p. 298). If this is the case, the tower could have been constructed there in compliance with the traditional layout of ancient harbors. The importance of Gyllius' passage lies in his functional arrangement of the pier and the tower in their simplest configuration. On the other hand, the design of ancient harbors with a bracelet form may require twin towers at the entrance. None of the accounts, however, mentions a second tower, if such existed. Linguistic analysis may yield more detailed information on the formation and location of the tower.

3. A wandering commander in the streets of Constantinople: Belisarius

Upon his victory over the Vandals, Flavius Belisarius (c. 505-565), the greatest commander of emperor Justinian, was recalled to Constantinople "at once, on the charge that the latter intended to make himself King (an idea of which Belisarius was utterly incapable)." So informs us Procopius of Caesarea, the legal adviser and aide-de-camp to Belisarius, in his chronicle *The Secret History of the Court of Justinian* (Procopius, 1927, p. 78). His account suggests that Justinian manufactured the charge of treason out of envy of Belisarius' fortune and popular appeal. Belisarius found himself removed from his position as commander of the army and deprived of all of his fortune.

Procopius' description of the events relating to the fate of Belisarius is an important primary source that presents a setting within which to observe how a myth was constructed later around his personality. Belisarius was forbidden by the emperor to visit the palace and was reduced to "a private citizen in Constantinople, almost deserted, melancholy and miserable of countenance, and ever expectant of a further conspiracy to accomplish his death" (Procopius, 1927, p. 25). Grieving in the city in the deepest disgrace and awaiting the final fate in his palace, he was eventually forgiven by the empress and nominated to head the armies in Italy. Procopius' account makes no mention,

though, of the location Belisarius' palace or of his blinding and imprisonment in a tower. It was Petrus Gyllius, a traveler who visited İstanbul around the 1540s, who noted that the palace was located near the bay, where the Port of Julian/Sophia lay, from where Belisarius sailed for the battle against the Vandals (Gyllius, 1729, p. 121).

It is not necessary in this context to go into the history of the construction of the apocryphal story associated with Belisarius. Suffice it to point out that it was John Tzetzes, a twelfth-century Byzantine grammarian, who first portrayed Belisarius as a blind beggar, creating a memorable image evoking pity and fear (Tzetzes, 2022, p. 88). The German playwright Jacop Bidermann (1578–1627) drew on this image of a tragic figure in his *Belisarius*, first performed in 1607 (Holtgrefe, 2009, p. 52). The story of Belisarius as a wandering beggar caught the artistic imagination, and as it traversed time and countries it became embellished with new colorings (Holtgrefe, 2009, p. 52; Smith, 1989, p. 635; Monty, 1963, p. 130).

In mid-seventeenth century İstanbul, the myth of Belisarius developed a somewhat different plotline: the fallen leader was condemned to a life of captivity in a free-standing tower in the sea. This version presented a desolate landscape generating a link with the general facing an unjust fate. Around the 1680s, the name of Belisarius became attached to the tower. It is the architectural context in the homeland of the original story that bestows a new coloring on the drama as the name Belisarius manifests itself in a principal landmark of the city: The Tower of Belisarius.

Figure 2. *Constantinople- the Düsseldorf version of Buondelmonti's Panorama of Constantinople ca.1422 (Ian R. Manners, 1997, 76).*

4. Associating the name of the commander with an isolated tower built in the sea

The process of associating the name of the fallen general with the tower is an object of curiosity. Notably, the structure's significance originated not from its scale and magnificence but rather from its location. This could be why the tower has little mention in classical histories and early panoramas of Constantinople. Although Pachymeres' account mentions the reconfiguration of the harbor site in twelfth century, the passage does not include a tower with a significant value erected out of water. Moreover, the panorama of Constantinople designed in 1422 by the Florentine cartographer Cristoforo Buondelmonti does not depict the tower in question. However, it is clearly distinguishable on the revised c. 1485-1490 panorama of the city illustrated by Buondelmonti. This representation is known as the "Düsseldorf copy", in which the square tower near the sea walls rises straight out of the water and rests on the rocky ground (Figure 2.). The panorama assigns no name to it (Manners, 1997, p. 76).

However, in his detailed description of the enclave, Petrus Gyllius records the preferred name for the tower during the Byzantine period in the following words: "In the mouth of the port, not

Figure 3. *Yenikapı by Piri Reis' Kitâb-ı Bahriye (C. Ülkekul, 2013, 83).*

altogether unfit for ships at present, without the City Walls, you still see a fortress in its ruins, surrounded by the sea. The unknown writer of *the Empire of Constantinople* asserts, that it was first called *Thema*," (Gyllius, 1729, pp. 256–257).

After the sixteenth century, historical engravings and accounts include indications that the inhabitants of İstanbul called the tower with several names, as Mülayim has shown. In an early sixteenth-century representation of İstanbul by Piri Reis the tower appears for the first time with a name: Kulle-i Hamza or Kulle-i Hamra (Ülkekul, 2013, p. 86). (Figure 3.) Piri Reis inserted it on the southwestern end of the harbor site, but as a massive structure higher than the sea walls. This remains the only mention of this name, and its absence in Ottoman primary sources such as the maps depicted by Velican in *Hünernâme* (1579/1580) and *the Book of Travels* by Evliya Çelebi (mid-seventeenth century) raises doubts that it was widely in use.

Armenians gave the tower another name in the mid-seventeenth century, calling it *Papaz Kulesi* (Tower of the Priest). Its first mention appeared in İstanbul *Tarihi* (History of İstanbul), written by the Armenian chronicler Eremya Çelebi Kömürciyan (d. 1695). Kömürciyan says that the tower earned its name from a tragic episode in which the deputy of the Armenian Patriarch David was strangled there along with a number of other priests (Kömürciyan, 1988, p. 3). Although it commemorated a tragic event, *Papaz Kulesi*, just like *Kulle-i Hamza*, failed to become the commonly used name of the tower.

It was the association of the tower with Belisarius that endowed it with an enduring name used into modern times. It first appeared in 1680 with the publication of Joseph Grelot's *Late Voyage to Constantinople*, in which he set out a link between the tower and the mythical figure of the commander. Sailing in a boat from the Castle of Seven Towers to the Seraglio, Grelot describes the square tower as having a distance of about twenty paces from the maritime walls and bearing the name Belisarius' Tower in the collective memory of the inhabitants:

> *Affirming, that it was in this Tower, where that great and famous Commander, for the recompense of all those signal services which he had done the Emperor Justinian, in subduing his enemies as well in Asia and Affrica, as in Europe, being despoiled of all his estate and honours, and reduced to the extremity of necessity, after he had endured putting out both his eyes, was at length shut up, and forced for his subsistence, to hang out a bag from the Grate of his Chamber, and cry to the passengers, give poor Belisarius a farthing, whom envy and no crime of his hath deprived of his eyes* (Grelot, 1683, p. 68).

Grelot's passage about the tower articulates the context in which the myth of Belisarius is employed to define the structure within the homeland of the original story. Besides attaching a signifying apocryphal story to the tower, Grelot identified it with the name *Tour de Bellissaire* on his map. The Turkish and Armenian toponyms were overshadowed by the tower's new name, which was commonly employed in subsequent engravings and accounts. For example, Gravier d'Ortiers, a French agent who visited İstanbul in

1685–1687, depicted the tower with the same name on the map he drew (Figure 4.). He added that the tower is 20–24 meters away from the maritime walls and that the Turks stored gunpowder inside (Bilici, 2004, p. 191).

In the chronicles and maps of İstanbul after the second half of the eighteenth century, the tower is mentioned interchangeably with reference to the priest and the commander (İncicyan, 1976, p. 4). Yet it was depicted in a new context, to be discussed in more detail below. The new context involves strictly urban development projects, namely the construction of the Laleli Çeşme Mosque (1760–1764) and an accompanying project outside Langa Yenikapı, where the tower is located. In a passage in his chronicle of İstanbul published in 1804, the Armenian writer Sarkis Hovhannesyan calls the tower with reference to the priest, repeating the tragic story behind it. But his passage dealing with the urban development project on the shoreline between Kumkapı and Samatya is worthy of note. The harbor site, says Hovhannesyan, was filled in by Sultan Mustafa III (r. 1754–1774) with the debris, stone and earth that had been extracted for laying the foundation of the mosque and was carried all the way to the shallow beach outside Langa Yenikapı. At this point he adds that to protect the shoreline from the southerly winds, Sultan Mustafa III constructed embankment walls constructed with boulders brought from the Islands. This was the method to reclaim land from the sea, on which an Armenian neighborhood emerged. After drying up the shallows the tower remained in place, but now surrounded by the houses and functioning as a bakery for the neighborhood (Hovhannesyan, 1996, pp. 8-9).

This story of maritime concrete walls being erected and then land being claimed from the sea was part of a repetitive historical pattern of terrestrial progress toward the sea. The new context in which the tower became integrated into the built-up area needs to be clarified in detail since much is not known about the fate of the tower in the following decades. All the misleading information about the tower originates in the poor documentation and limited knowledge about the exact location of the Byzantine ruin. To break through with greater accuracy we need to delve more deeply into the former harbor's design and the period after 1760 when a neighborhood emerged over the site.

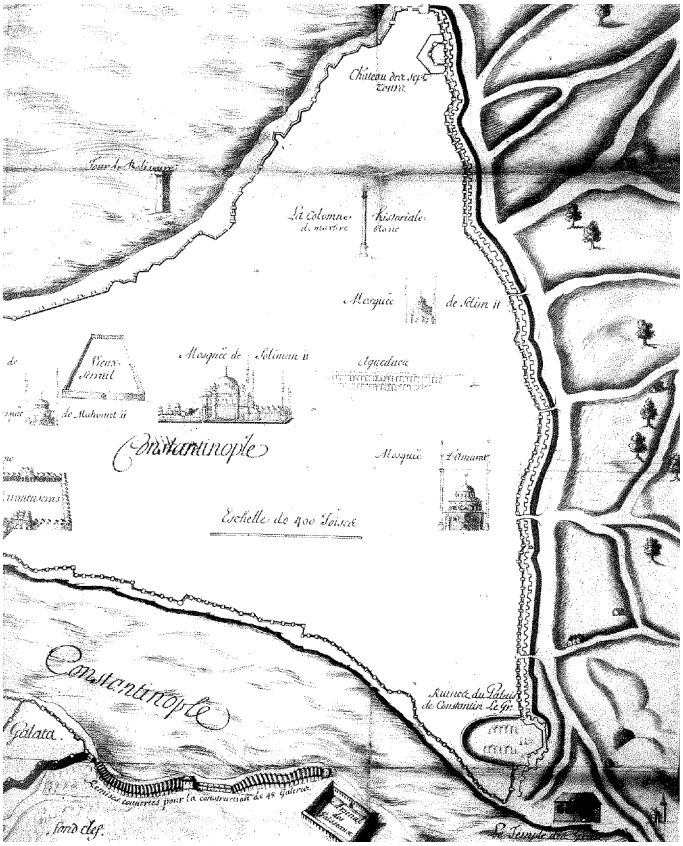

Figure 4. *Map of İstanbul by Gravier d'Ortiers (Faruk Bilici, 2004, 193.).*

5. A new urban development phrase

The building project at the Yenikapı Harbor, which began in May 1760, was the most complex and laborious urban development of the reign of Sultan Mustafa III (r. 1754–1774). It represented a new phase in the history of both the site and the Tower of Belisarius, which coincided with a moment that formed a straight shore line at the edge of the harbor basin. Its importance lies in the incorporation into the built-up area of the ancient maritime walls bordering the Theodosian Port and of the tower standing in the sea. The Yenikapı Harbor project was part of the Laleli Çeşme Mosque construction program, and as such it aimed to establish on the infilled harbor a neighborhood that would be protected from the southerly

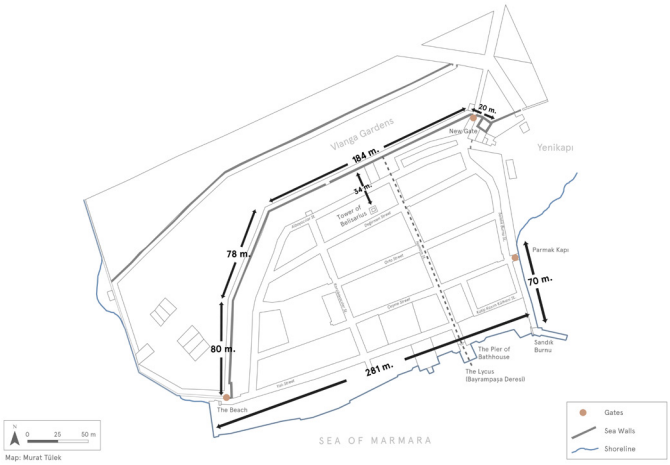

Figure 5. *Plan of Infilled Harbor Site outside Langa Yenikapı (Murat Tülek and Ayhan Han, 2022).*

winds and the stormy waves of the Sea of Marmara. This was to be accomplished by suspending an underwater concrete structure which ran directly from the Yenikapı pier in the east to the promontory of Langa Gardens in the west. In an official petition that laid out the primary objectives of the project, Ali Ağa, the leading official in charge of the construction, presented the project as a generator of rentable lands on the harbor site, subordinating everything to the production of revenues on behalf of the Laleli Çeşme Foundation. The procedure for filling in the harbor site was to involve driving timber piles vertically onto the seabed in a single line that runs across the promontories, and dumping the earth and stones in the rear (OAPM, TS.MA.e 578/9).

Embankment walls emerged as the best option to counterbalance the challenges presented by the strong sea waves. They therefore replaced the pile-driving operation with the sinking of a prefabricated wooden formwork into the seabed in order to build a maritime concrete structure far from the shore. The aim of such formwork was to provide for a dry enclosure below sea level that would be filled with concrete. The technique, called caisson in English and sanduk in Turkish, was similar to that of the "cribs" described by Procopius in the construction of a harbor mouth in Constantinople sometime between 527 and 553 (Procopius, 1971, pp. 93–95).

The construction of the maritime concrete structure at the Yenikapı harbor lasted until the fall of 1761 (OAPM, EV.HMH.d. 5225). By sinking the wooden formworks into the seabed in regular courses, the project created an L-shaped monumental quay line, 281 meters long and 4 meters wide in an east-west direction, and nearly 70 meters long and 4 meters wide in a northerly direction (Figure 5.). The southeast corner of the quay line was called Sandukburnu, a reference to the wooden formwork employed in the construction work. This point is important because the L-shaped quay line formed a new enclave which was interpreted by Dirimtekin in 1953 as the roadstead section of the Port of Theodosius. Dirimtekin also identified the visible portion of the caisson as the foundation of a tower, thus leading astray succeeding researchers, who generated maps allegedly depicting the southern limits of the Port of Theodosius (Dirimtekin, 1953; Müller-Wiener, 2016, p. 317).

The excavation project conducted by the İstanbul Archeology Museum in 2014–2016 at the southeastern corner, to which the author of this article contributed in a minor way, unearthed ten in situ wooden rectangular flat-bottomed formworks carefully attached to each other. The evidence indicates that the maritime concrete structure rested on the sea bottom, 4.5 meters under water and half a meter above sea level. Each of the sections was approximately 12 meters long and 4 meters wide (Öncü and Çölmekçi, 2017, pp. 71–72). The archival sources about the two formworks crafted at the Yenikapı Harbor note the changing seafloor depth and confirm the latest excavation's finding that the size of the first prefabricated wooden formwork was 11 meters long, 3.8 meters wide and 4.1 meters high while the second one was 12.1 meters long, 3.6 meters wide and 6.8 meters high (OAPM, D.BŞM. 3603; OAPM, EV.HMH.d. 5225, 5254).

The construction of the underwater concrete structure at Yenikapı Harbor set up a new line on the edge of the built-up area. In the history of the harbor it represents a significant stage in the terrestrial movement toward the sea. With the city walls bordering in-

land and the maritime concrete structure delimiting the outward growth toward the sea, the infilled harbor site turned into an enclosed area with an integral character. From the outset, the project was designed primarily to generate the highest possible rental income for the new foundation, which depended first on the reasonable use of the land, and secondly on raising the rental value of each plot. While the first goal required a design that provided a tight and economical layout, the second required a marketing effort designed to attract customers. With the filling in of the harbor site, the Tower of Belisarius which once stood in the sea was now surrounded by homes in the newly created neighborhood, as described by Hovhannesyan.

In its new urban setting the tower preserved its empty stone shell and became the local bakery. The new function acquired by the tower repeated a pattern characteristic of the Ottoman approach to Byzantine dilapidated or ruined structures of the period. Integrating antique ruins into the urban fabric with a repurposed function became crucial for the continued survival of these old structures. For example, Tekfur Sarayı, the only Byzantine imperial palace that survived into modern times, was turned into a center of tile and glass production around the time the Tower of Belisarius became an integrated urban landmark in the 1760s (VGMA 642). In September 1762, Ali Ağa, the prominent planner of the new neighborhood, suggested allocating space for the production of bakery products for the residents. That required a plot of land large enough to accommodate two bakeries and an attached flourmill with four grinding stones (OAPM, C.EV 1479). Interestingly, the old tower was one of the first structures rented out to the new customers, who possibly preferred a stone structure immune to the hazard of fires.

An important archival source from the Prime Ministry's Ottoman Archive (OAPM, D.HMH.d. 21645) records the leasing of every structure built in the neighborhood during the first six-year period. The entries identify the architectural features of the properties and their new tenants. The document dated 1763 concerning the Tower of Belisarius is particularly important because it records the precise size of the tower's block-plan, valuable data presented in this study for the first time. The entry for the tower (identified as kulle) specifies that the tenant, Ohannes the son of Serkis, was entitled to use the bakery and the flourmill with the four grinding stones for a certain price paid in advance and a monthly rent thereafter. As for the parcel on which the bakery and flourmill were located, the lease makes an important contribution to the history of architecture: the land plot of the flourmill covered a surface area of 747 square meters (1300 zirâ), and that of the tower extended over 39 square meters (68 zirâ) (OAPM, D.HMH.d. 21645).

The archival sources and historical maps depicting the neighborhood indicate that the tower preserved its residual form over time. It thus provides a fine example of the concept of persistence of urban artifacts, useful in analyzing the layers and basic layout of historical cities. The concept of persistence holds that historical urban features like streets and plot patterns tend to preserve their residual character over long periods (Kropf, 2017, p. 68). The city, Aldo Rossi points out, grows with reference to the persistence of urban artifacts – a building, a street, a district – which constitute part of it. These elements express their vitality in the form of the city and in the layers of the urban structure. Even when they deteriorate and collapse over time they still preserve their physical imprint on the ground and a place in the city's plan: "[T]hen only the permanency of their form, their physical sign, their locus remains" (Rossi, 1984, p. 59). This point is the main theme of this study on the theoretical level. It provides a route to identifying the location of the tower in its new urban setting.

The first known plan of the new neighborhood, dated 1841, shows a square-shaped layout occupying the south side of the textile-dyeing workshops over Değirmen Street (Semiz and Ahunbay, 2014, p. 88). It is the area where an entrance into the harbor site was located and upon which the tow-

Figure 6. *Aerial View of Yenikapı and the Current Location of the Tower of Belisarius, Accessed August 30, 2022. (https://parselsorgu.tkgm.gov.tr/#ara/idari/147779/829/1/1661962539451).*

Figure 7. *Plan of Rumelian Railway Line Near Langa Yenikapı (OAPM,ŞD. 1205/1).*

er was built. By correlating the data obtained from the collection of lease rights granted to the new tenants with the 1841 map, we are able to figure out the location of the tower through Geographic Information System (GIS). The plan indicates that the tower was located about 34 meters south of the former maritime walls, having the size of almost 39 square meters as recorded in the original lease terms. Moreover, the current parcel is identified as "829. Ada 1. Parsel" in the records of the General Directorate of Land Registry and Cadaster (Figure 6.).

A particular set of features ensured the permanency of the tower in the succeeding decades. The relative plot size shows clearly that together with the flourmill, the tower became an important urban presence in the new setting. This was achieved, first of all, by the stable ownership over the plot of the land, the tower and the means of production such as grinding stones, provided by the foundation (OAPM, EV.HMH.d. 8088). Secondly, several privileges granted to the bakery and flourmill contributed to the building's endurance. From the very beginning, the bakery was entitled to meet the demand for bread in both the neighborhood and in other residential areas outside the city walls at Yenikapı (OAPM, D.BŞM. 4807/69). By doing so, the foundation guaranteed protection for the bakery against competitors around the neighborhood (OAPM, D.BŞM. 4769/41).

The reciprocal relationship between the bakery and the foundation extended in a new direction that marked a groundbreaking turn in the daily bread consumption of the city of İstanbul when the Yenikapı bakery acquired the right to bake francala bread. Producing this bread was a privilege traditionally enjoyed only by the Rumi (Greek) bakeries in Galata, but the Laleli Çeşme Mosque Foundation took the bold step of permitting its tenants, first in Bahçekapı and then in Yenikapı, to bake francala bread (OAPM, D.BŞM 4578/89). The shift began when a new partner in the tower bakery, Fırıncı Agop (Agop the Baker), started to produce the bread, provoking a lengthy conflict with the Greek bakers in Galata, who stormed the offending bakery, protesting that baking francala bread was their exclusive privilege (OAPM, AE.SMST III AE.SMST III 5229). After a year-long suspension of business, the foundation and the court gave their support to the bakers of Yenikapı, a move that consolidated the bakery's position as an important presence in and around the neighborhood (OAPM, MAD 10018, p. 14). For example, even today the street to the south of the structure is named Değirmen (The Mill), and the parcel, recorded as "829. Ada 1. Parsel" in the records of the General Directorate of Land Registry and Cadaster, still retains the

bakery's plot boundaries with only a slight modification.

Contrary to Dirimtekin's claim that the demolition of the tower dates to the advent of the Rumelian Railways in 1872–1874 (Dirimtekin, 1953, pp. 12, 31, 38; Mülayim, 2015, p. 81), it is clear that the tower survived until the 1890s. An 1894 plan of the railway lines envisages the rail lines at the Yenikapı section passing straight north of the neighborhood by demolishing ancient seawalls at its northeast corner while excluding the tower and nearby plots outside the railway (about 47 meters). Although the plan indicates the tower area, it is impossible to tell if the building was still in place in 1894 (Figure 7.).

There are signs that the Tower of Belisarius, the bakery and the flourmill disappeared from the city scene in the last decade of the nineteenth century. Around the 1880s, a modern flour factory equipped with imported European machines was constructed on the same plot of land, replacing the former bakery and flourmill (OAPM, ŞD 504/21). In 1892, a suspicious fire reduced this factory to ashes. An investigation pointed to several suspected arsonists, including Yorgi Nikeforaki, a Greek subject, and Grégoire Cuppa, a British subject. A major trial ensued, with the involvement of many consulates (OAPM, HR.H 496/1). Thereafter the factory and nearby area were described as "the flourmill razed to the ground" without mention of any building with a significant value (OAPM, ML.EEM 361/7).

However, even after the destruction of the tower's empty shell in 1892, the ruin preserved its physical footprint, its locus. In his insurance map for 1936 Jacques Pervititch depicted a building that appears to be resting on the tower's foundation. With a size of almost 39 square meters, the deformed quadrilateral shape is located at the head of the same plot facing Değirmen Street. From it extends a surface large enough to accommodate the subsidiary uses, and that may very well have been the area allocated for the grinding stones and animals of the flourmill (Figure 8).

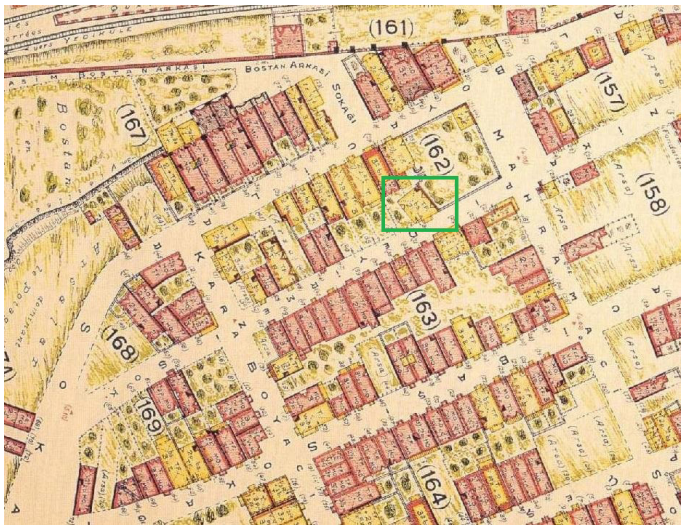

Figure 8. *Plan of the Neighborhood outside Langa Yenikapı by Jacques Pervititch (Atatürk Kitaplığı, Haritalar (Hrt) 631).*

6. Conclusion

Although it has lost its structural integrity, the Tower of Belisarius presents a specific case of a Byzantine ruin, constructed at the edge of the city without a physical connection with the urban fabric. This aspect is particularly interesting for architectural comparison with the monumental wonders dominating the cityscape as well as the street and housing patterns beyond it. However, despite its modest size, the tower was one of the first architectural objects to strike travelers, who considered it unique in the harbor basin. Based on newly-discovered data on the tower, this study establishes, first, that it was constructed at the mouth of the Port of Theodosius, at a distance of 34 meters from the ancient breakwater surrounding the southern borders of the enclave. Second, the lease record of the tower indicates that the structure was 39 square meters in size and constituted the main plot in a large parcel that was allocated to the service of the new neighborhood as a bakery. And last, the tower had preserved its empty shell until 1892 when a fire burned it down while still leaving its physical imprint on the ground.

Until the structure ceased to be a "landmark" in the water, it formed a primary element of the harbor installation. It remained on its site even after the filling in of the harbor basin in 1760–1762. In the succeeding years, this ancient structure was integrated into the built landscape, set within a new architectural and urban land-

scape. Due to the large-scale urban development project of the 1760s, the Ottomans formed a new archeological layer outside Langa Yenikapı, allowing the singularity of the structure to endure.

This was hardly a structure of monumental scale, and yet it was able to aggregate around nearby plots and so dominate its setting at a micro level. The block into which the tower was integrated hosted a flour mill and bakeries, with the street on its south side being named after the mill. A stable ownership and the privilege to bake *francala* bread guaranteed the permanency of the tower until a fire demolished it in 1892. However, both the 1894 plans of the railway lines crossing the neighborhood and the Pervititch insurance plan of 1936 prove that the structure left its physical footprint on the ground. This point addresses the comment by Aldo Rossi on one of the meanings of the term *locus*, which highlights the "character of permanency of those first forms" (Rossi, 1984, p. 107). This urban feature echoes also other themes of this study illustrating the persistence of historical urban forms that manifest themselves in the layers and basic layout of the city, as observed by Rossi.

The case of the Tower of Belisarius is an example of how important it is to cross different historical periods in the study of ancient buildings in İstanbul, and through the use of Ottoman archival and narrative sources not only to uncover more about their relationships to the new urban context, but also to correct assumptions about their place within their pre-Ottoman topography.

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