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A BRIEF HISTORY OF THE RESTORATION OF THE THEODOSIAN WALLS BEFORE THE TWENTY-FIRST CENTURY

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ABSTRACT

The main aim of this paper is to briefly present the history of the restoration of the Theodosian Walls in Constantinople and their green surroundings, with a focus on the different factors that have affected this process. The Theodosian Walls, now in Istanbul, were one of the most perfect works of military architecture for hundreds of years, contributing to the survival of the city in the face of repeated attacks, as well as surviving numerous earthquakes. Their design was characterized by a number of military solutions that were innovative at the time. However, due to damage caused by natural disasters, and as a result of war and the expansion of the city, many restoration works have been undertaken during their existence. The biggest changes were made during the expansion of roads in the twentieth century, as well as during restoration works carried out after 1991. These restoration works included the protection and partial reconstruction of the fortification's original appearance. Today, a question remains regarding how to restore such an important monument in current cultural conditions while taking into consideration the importance of green areas in the city. The main conclusion of this research is that both the walls and bostans, as inseparable parts of tangible heritage, could significantly support cultural tourism following their complex restoration and full inclusion into the educational system in Turkey.

KEYWORDS

Restoration, Byzantine Heritage, Bostans, Architectural Education.

INTRODUCTION

The process of adapting the Theodosian Walls of Constantinople to current cultural trends still seems to have great potential. This relates not only to the land and sea walls, as one of the main tourist attractions, but also to green areas that may provide a substantial change to the life of Istanbul citizens as a place of relaxation. A short history of the walls together with their subsequent restoration in the twentieth century, and the potential for further steps, reveal the significance of their incorporation into public life. This approach takes into consideration the main advantages of the area with a focus on the historical importance of the walls and their green surroundings, especially in the form of bostans. The history of the Theodosian Walls, with all the political and military aspects, is discussed by Alexander van Millingen, Wolfgang Müller-Wiener, Stephen R. Turnbull, Bryon C. P. Tsangadas, and Metin and Zeynep Ahunbay in the works mentioned below; the two latter authors also describe various aspects of the monument restorations. This is despite the fact that, in relation to their importance, the Byzantine fortifications for a long time received relatively little scholarly attention [1].

1. The Theodosian Walls of Constantinople

1.1. Historical Background

During the rapid development of Constantinople in the second half of the fourth and early fifth centuries, the demand for a new urban space increased. However, the main reasons for the development of the defensive system were the increasing problems of the Western Roman Empire, namely the threat of invasion by barbarians including the Huns. The construction of new walls under the supervision of Flavius Anthemius, a prefect of the Praetorian Guard, began approx. 2000 m west of the existing walls of Constantine, and was finally completed during the reign of Theodosius II (408–450) (Figure 1).

Thanks to these walls, Constantinople was conquered only three times: in 1204, by the Fourth Crusade, virtually ending the heyday of the empire; for the second time, by the Byzantines in 1261, during what was, in retrospect, a time when the city was practically undefended; and, finally, by the Ottoman Turks in 1453 [2]. The conquest of the city by the crusaders and its reconquest by the Byzantines revealed the weakness of the sea walls. In turn, the final conquest of Constantinople was accomplished by breaking the land walls' weakest point, located in the central part of the land defense system, in the valley of the river Lycus.



Figure 1. Map of Byzantine Constantinople with the Theodosian Walls (on the left).
Source: F. R. von Hubner, 1899, map, from Van Millingen, A.: Byzantine Constantinople, the Walls of the City and Adjoining Historical Sites. London: J. Murray.

1.2. Structure of the Walls

On the land, the Theodosian Walls consisted of three lines of fortifications, separated by spaces serving as communication areas (Figure 2). The strongest and most important line of defense was the inner wall, strengthened by the defensive towers. Its height was between approx. 9.50 m above exterior ground level and ca. 12 m within the city, including the battlements, whose external faces were approx. 1.5 m high. The main line of the land walls included 96 towers rising above their blanks, divided into two chambers, and positioned approx. 50 m apart. Their height was approx. 18 m [3]. In the main line of the walls, there were 10 gates, five known as 'military gates' and five public ones, including the Golden Gate, which served as the main gate to Constantinople.



Figure 2. Three lines of fortifications of the Theodosian Walls with crenellation after the recent restorations.
Source: A. Savin, 2021, retrieved 04.20.2023 from www.upload.wikimedia.org/wikipedia/commons/4/49/Istanbul_asv2021-11_img65_Walls_of_Constantinople.jpg.

Between the inner wall and the outer line of defense was a terrace with a width of 12–20 m. The outer line of the walls was raised approx. 3 m above the terrace, and approx. 8.5 m above the exterior ground level, with a thickness between 0.6 and 2 m. It had lower defense towers that were 10–12 m above the exterior and separated from the moat by an outer terrace, and then the third line of walls. In front of the third line of the walls was a moat at least 19 m wide and, probably, not deeper than ca. 6.7 m [3] strengthened by an additional, small wall on its opposite side. Due to the various ground levels, the moat could be divided into parts with different depths.

The walls were built using a mix of bricks and stones (Figure 3). Masonry stones interspersed with strips of red bricks ca. 35 cm in size and approx. 5 cm thick are visible in the facade. The bricks were likely produced in situ during the construction process. Inside the walls, in places corresponding to the visible location of the stones on the external elevation, debris was mixed with mortar. However, the red bricks are located in layers across the width of the wall. Importantly, the towers of the main line of the walls were constructed in the same manner and from the same materials, but probably because of the threat of earthquakes, they are detached from the walls as separate structures. However, it should be underlined that the first large-scale repair work took place in 447, shortly after the earthquake that damaged a large section of the walls, including the towers [4].



Figure 3. Detail of masonry and brickwork.
Source. N. V. Artamonoff, n.d., photograph, Image Collections and Fieldwork Archives,
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2. A Brief History of the Restoration of the Walls

In addition to the earthquakes in 1754, 1766, and 1894, the use of architectural elements and stone blocks of the walls as spolia in new constructions by the residents of the city caused large damage to the monument itself. The stone blocks served the local community as building materials for new houses or the renovation of old ones throughout the long period of the Ottoman Empire's fall. Thus, the walls started to be demolished systematically [5]. This was due to both the economic situations of people living in the neighborhood and the perception of the walls as a product of another civilization. However, this process is also known from the earliest Islamic monumental buildings, e.g., the Great Mosque in Saná, Yemen, which contains parts of the demolished church of Abraha, and the Roman columns that were reused in the Umayyad Mosque in Damascus, Syria. Even though they left irreversible negative impacts on the cultural heritage, there is no reason to evaluate the above-mentioned processes from just one perspective: satisfying current human needs has always been of the utmost importance.

Despite the fact that the land walls still preserved their integrity at the end of the nineteenth century, they were, in fact, not well-preserved. The situation did not improve with new plans for urban development. During the construction of the railway through the city in the years 1870–1873, the first break in the walls occurred, with the demolition of Tower 7 and the main wall between Towers 6 and 7. This was followed by the construction of a coastal road (Kennedy Caddesi) passing between Tower 1 and Marble Tower in the 1950s, removing the coastal character of Tower 1 and disturbing the connection of the land and sea walls along the Marmara coast [6]. Afterward, the construction of Vatan and Millet Boulevards branched out from Divanyolu in Aksaray and broke through the land walls in two locations. The northern branch, Vatan Caddesi,

passes to the north of the Romanus Gate between Tower 71 and 73, causing a loss of 60 meters in length of the body wall in this area and of Tower 72. Moreover, the construction of Millet Caddesi, one of the main boulevards in Henri Prost's urban plan [7], entirely destroyed the body wall between Towers 60 and 61 (Figure 4). Another smaller motorway, Fevzipaşa Caddesi, did not pass through the land walls when it was originally constructed, but eventually, it was extended and connected with the outer roads in the years 1983–1989 [8]. Most of the moats became undetectable due to them being filled with debris caused by the construction of the new roads [9].



Figure 4. The concrete mixer pouring 25 cm thick concrete at the beginning of Millet Caddesi between Towers 60 and 61. Source. Unknown author, photograph, from Gül, M.: Urban planning operations and their background in Menderes period in Istanbul. In *History of Istanbul from Antiquity to 21st Century*, vol. 9 [online]. www.istanbultarihi.ist, 2000 [retrieved 04.05.2023, 12:20 CET]. Accessed at www.istanbultarihi.ist/715-urban-planning-operations-and-their-background-in-menderes-period-istanbul.

The walls had been consistently restored several times under the Byzantine and Ottoman rules. In the 1910s, the construction of a ringway, bringing down the land walls and leveling the moats, as was done in Vienna, was under discussion, but was prevented by Turkish and European archaeologists [5]. In the first half of the twentieth century, after the foundation of the Turkish Republic, the land walls and their environs were designated a preservation area in the first urban development plan for Istanbul [6]. In spite of the constant discussions regarding the restoration of the city walls as early as the 1940s [10], the first intervention was not undertaken in the damaged parts where the coastal road, as well as Vatan and Millet Boulevards, cut through until 1956 [11]. The restoration work in the Seven Towers (Yedikule; Figure 5) and Golden Gate (Porta Aurea; Figure 6) started in 1958 under the directorship of architect Cahide Tamer and continued until 1970. The head architect of the restoration set forth her vision of recreating the original characteristics of the Porta Aurea as much as possible, instead of constructing a new gate, preserving and using original architectural pieces, and implementing only the consolidation works – apart from the reintegration of the non-existing parts – which had a structural function.



Figure 5. The interior view with Kitabeler kulesi and the entrance to Yedikule.
Source. N. V. Artamonoff, n.d., photograph, Image Collections and Fieldwork Archives, Dumbarton Oaks, Trustees for Harvard University, Washington, D.C. Licensed under CC BY-NC-SA 3.0 IGO.



Figure 6. Golden Gate (Porta Aurea) viewed from the southwest; state from 1939.
Market garden in the moat near Yedikule and the Golden Gate.
Source. Unknown author, 1939, photograph, Image Collections and Fieldwork Archives, Dumbarton Oaks, Trustees for Harvard University, Washington, D.C. Licensed under CC BY-NC-SA 3.0 IGO.

In the years 1969–1970, Tower 70, known as Ulubatlı Hasan Tower, was also restored and partially reconstructed for the 500th anniversary of the conquest of Constantinople [12]. The restorations undertaken in this period had been executed without any proper restoration projects or scientific research and the results of these works were unfortunately never published. The walls were partially over-restored and reconstructed, however, with populist overtones. In the Edirnekapi region, in particular, the ruinous interference with the character of the monument was much criticized at the time. Unfortunately, the restorations in the 1950s were not documented or published, and mistakes were naturally inevitable with such an unprofessional approach, which had nothing to do with modern restoration theories [9]. In 1985, the historic monuments and districts of the city were designated as World Heritage Sites by the United Nations Educational, Scientific and Cultural Organization (UNESCO) [6] and as a consequence

of the anticipated funds no longer being forthcoming from UNESCO, the restoration projects were initiated by the Istanbul Metropolitan Municipality in the second half of the 1980s. The projects were established by Taç Waqf and the work was divided among different contractors. In 1987, a campaign started with the restoration of the Belgrade Gate, which had been determined to be the most ruinous section of the land walls at that time. Despite the emphasis on the necessity to abstain from any sort of reconstruction, the walls were over-restored following the aim of restoring the monument to its original look from the fifth century [11]. This project was followed by the restoration of the Silivri Gate and the Mevlevihane Gate. The outer wall and the moats between Belgrade and the Silivri Gate were also reconstructed with all the original details. The reconstruction of ruined towers rather than the consolidation works of dangerous structures in the 1980s has been much criticized [9].

After a change in the municipality in 1989, an approach regarding the preservation of the monuments with the least intervention possible was set forth. In 1991, restoration works started on the wall section, which had been revealed after the removal of the tanneries leaning towards the wall, between the Seven Towers and the railway. Original construction materials and techniques were employed in the consolidation-based restoration of the above-mentioned section between Tower 1 and Tower 6. The results of this campaign were published in 2000 [6], but without waiting for the outcomes of the conservation decisions, and after further discussions the municipality expanded the 1992 restoration project of the walls. The campaign was partially sponsored by UNESCO. However, municipal pressure led to the works being hastened and the whole project was divided among 11 contractors [13]. A scientific consultant was assigned to each of these uncoordinated restoration works. Seven of them involving the land walls and their restorations were carried out without the necessary architectural surveys of the monument, coordination between different teams, or a plan for the publication of the results, while also lacking professional supervision [11]. Unqualified contractors took charge of the work, which should have been carried out with care under the control of specialists [9]. Eventually, the mayoral elections in 1994 put an end to these implementations. The earthquake in 1999 badly damaged the walls, attracted attention to the deficiency of the previous restorations, and underlined the importance of the consolidation works [13]. Yet the restoration of three different sections of the land walls which started in 2003 was also criticized for employing non-scientific reconstructions instead of necessary consolidations [8].

3. Bostans: The Green Surroundings

Since at least 2016, problems have also been visible in relation to new constructions of the walls and in the landscape architecture design of their foreground, which does not follow the general shape of the walls. Some of the bostans (Figure 7) – vegetable gardens established by a local community in the surroundings of the walls, a feature also known from Hama in Syria – were damaged and turned into recreational areas. Moreover, a fast increase in car traffic close to the walls is negatively affecting their technical state and touristic value. Therefore, potential intervention in the development of green areas should be based on proper recognition of the abiotic factors (including high temperature, soil drought, lack of oxygen, excess heavy metals, the salinity of the substrate, nutrient deficiency, alkalization or acidification of the substrate, and the coating of snow or ice), biotic ones (very small or an overcrowding density of trees and shrubs, lack or excess of soil microorganisms, plants, and parasites), and anthropogenic factors, such as the above-mentioned industrial and traffic pollution, soil compaction,

and electromagnetic fields [14]. Taking into account these factors is a prerequisite in maintaining the plants' good health as long as possible, as they also have an impact on their appearance. From the point of view of a city functioning as a complex organism, urban greenery such as bostans performs many important functions. First of all, human life is directly related on many levels to contact with nature. Being outdoors has a positive effect on the human body, allowing people to reduce adverse levels of stress. It also has a beneficial effect by improving oxygenation, which is essential for the functioning of the whole organism. Moreover, green areas are responsible for the reduction of noise by absorbing and scattering sound. The green areas of plants contribute to an increase in the oxygen content in the air, in addition to absorbing harmful dust. An important role of green areas in the city is also humidifying the air and improving its microclimate characteristics [15].

A significant feature of green terrains, besides their functional use as in the case of bostans, is their positive influence in terms of aesthetics. This stems largely from people's habit of communing with nature, which has become, considering the length of civilization with regard to the existence of life on our planet, almost stagnant. The impact of green areas, as is the case of anything with a high aesthetic level, is that they are not only conducive to reducing stress, and improving both the standard of work and living, but also to the proper development of human psychology. This suggests that the development of bostans around the walls, with their cultural background, apart from planned and well-organized renovation works, could be one of the best solutions to the problem of their restoration.



Figure 7. The tower of Isaac Angelos and the lower section of the Blachernae walls from the southwest. Market garden, possibly planted with eggplants.
Source. N. V. Artamonoff, 1936, photograph, Image Collections and Fieldwork Archives, Dumbarton Oaks, Trustees for Harvard University, Washington, D.C. Licensed under CC BY-NC-SA 3.0 IGO.

4. Conclusions

Cultural recognition of the restoration of the walls still remains at a low level or is even nonexistent in Turkish society. This is, above all, due to the teaching of history in primary and high schools. Even if visible changes in Turkish education have recently been implemented, they are not at all connected to teaching about the development of architecture and culture. History teaching in Turkey remains mainly devoted to Turkish history, especially the Ottoman Empire and Atatürk's republic. A lack of precise information about previous inhabitants of Istanbul and their participation in the development of the city or other significant Byzantine achievements shapes an unrealistic vision of history. Therefore, the absence of information about the Theodosian Walls in the process of education raises a cultural barrier between the current citizens of Istanbul and the perception of the monument. Thus, among the local community, this causes a lack of recognition of the walls as a historic monument of the utmost cultural value: the walls are mainly used as a place for picnics. In fact, only professionals from Turkey and abroad are involved in the problems regarding the restoration of the walls; there is no conscious support from the local community. The organization of restoration works should involve a change in attitude to the architectural heritage of Byzantine origins that is open and favors ecological solutions. However, due to the increase in the government's interest in Ottoman architecture since at least 2013, priority in restoration is given to monuments representing this period of history. One of the most significant medieval fortifications in the world needs a well-planned, strategic approach to its preservation as well as its green surroundings. Moreover, the level of awareness concerning the role of green areas in urban space remains relatively low among a large part of society. The question is what the professional community of architectural historians can do about the above-mentioned situation. As the research reveals, the answer remains connected with education in Turkey and the inclusion of both the history of the Theodosian Walls and their restorations as a part of architectural heritage and the real value of green areas into modern education worldwide.

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KRÓTKA HISTORIA RESTAURACJI MURÓW TEODOZJUSZA PRZED XXI W.

STRESZCZENIE

Głównym celem artykułu jest krótkie przedstawienie historii restauracji Murów Teodozjusza w Konstantynopolu, obecnie Stambule, wraz z otaczającymi je ogrodami, z uwzględnieniem wpływających na nią czynników. Mury Teodozjusza przez setki lat były jednym z najdoskonalszych dzieł architektury militarnej, przyczyniając się do przetrwania miasta w obliczu powtarzających się ataków nieprzyjaciół. Ich konstrukcja charakteryzowała się szeregiem nowatorskich, w czasach średniowiecza, rozwiązań militarnych. Ze względu na zniszczenia spowodowane klęskami żywiołowymi, w tym trzęsieniami ziemi, a także wojnami i sukcesywną rozbudową miasta, podjęto wiele prób ich restauracji; największych zmian dokonano podczas rozbudowy dróg w XX wieku oraz prac restauratorskich przeprowadzonych już po 1991 roku. Prace te obejmowały, przede wszystkim, zabezpieczenie i częściowe odtworzenie pierwotnego wyglądu fortyfikacji. Cały czas pozostaje aktualnym pytanie: jak w obecnych warunkach kulturowych odrestaurować tak ważny zabytek, uwzględniając przy tym znaczenie terenów zielonych w mieście? Głównym wnioskiem z przeprowadzonych badań jest stwierdzenie, że zarówno mury, jak i otaczające je ogrody (bostany), jako nierozłączne części bizantyjskiego i tureckiego dziedzictwa kulturowego, mogą znacząco wesprzeć turystykę kulturową dopiero po ich kompleksowej renowacji oraz pełnoprawnym włączeniu ich historii do systemu edukacji w Turcji.

SŁOWA KLUCZOWE

Restauracja, dziedzictwo bizantyjskie, bostany, edukacja architektoniczna.



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