GU J Sci, Part B, 11(3): 551-570 (2023)

Gazi University

Journal of Science

PART B: ART, HUMANITIES, DESIGN AND PLANNING



http://dergipark.gov.tr/gujsb

Khan al-Wazir and Merzifonlu Kara Mustafa Paşa's Endowed Buildings in Aleppo: History, Architecture, and State of Conservation

Ruba Tamim KASMO^{1,*}

¹ 0000-0003-4446-4985, Fatih Sultan Mehmet Vakif University, Faculty of Architecture and Design, Istanbul

Article Info	Abstract
Received: 21/08/2023 Accepted: 28/09/2023	Given the paucity and fragmentation of knowledge on Merzifonlu Kara Paşa's endowed buildings in Aleppo, this article seeks to shed light on the heritage importance of these buildings by presenting their history, architectural characteristics, the transformations they have undergone within the urban dynamic of the city, and their current state of preservation after the extensive
Keywords	damage that the old city of Aleppo suffered during the years of armed conflict (2012-2016) and the earthquake of February 2023. In particular, the article presents an architectural analysis of the
Architectural Heritage, Ottoman Architecture, Khans, Aleppo, Damage Assessment	most important building of the endowment, Khan al-Wazir, based on a field study conducted between 2010 and 2012. Enduring urban interventions, functional changes, war, and earthquake damage, the remaining endowed buildings represent today a unique example of urban activity and local civil architecture in Aleppo during the seventeenth century. There is a pressing need to restore these buildings in order to revive their cultural, urban, architectural, and functional values.

1. INTRODUCTION

Because there is no inscription or trust deed (vakfiye) pertaining to the building, there has long been speculation regarding who established one of the most significant khans in Aleppo, Khan al-Wazir. The two famous 20th century Aleppo historians, al-Ghazzi [1] and al-Tabbakh [2], as well as many other researchers, wrongly attributed the khan to a vizier named Kara Muhammed Pasa based on the information found in several issues of (Salname Vilayet-i Haleb) [3], which listed Muhammed Paşa as the governor of Aleppo between 1678 and 1682 and the khan's patron. Then, Masters [4] reported that the khan was built in 1681 by the grand vizier Kara Mustafa Paşa in accordance with various imperial decrees pertaining to khan's administration. He did not, however, establish the connection between the patron in the decrees and Merzifonlu. Watenpaugh [5] has provisionally identified him as the grand vizier Merzifonlu Kara Mustafa Pasa because one of these decrees reference Mustafa Pasa dying in Belgrade. The uncertainty stems from the fact that Merzifonlu has never served as governor of Aleppo on the one hand, and that the buildings listed in the decrees cannot be identified in the city on the other. This was validated by checking the Archives of the General Directorate of Waqfs (Vakıflar Genel Müdürlüğü Arşivi) in Ankara, where one of Merzifonlu's deeds identifying the khan and numerous other structures in Aleppo as endowed properties was found. This deed is registered in Istanbul and does not assign any beneficiary building in Aleppo, which explains its absence from court records and historical chronicles of the city.

Merzifonlu (d.1683) was a prominent 17th-century Ottoman statesman. There are several accounts of his origins and early life, but they all agree on his close relationship with the Köprülü family, which shaped his long career and allowed him to occupy numerous prominent positions until he became grand vizier in 1676. In 1683, he headed the Ottoman siege of Vienna, which was repulsed by the Austrian-Polish army. As a result, the Sultan ordered his beheading in Belgrade. Following his death, his descendants acquired the sobriquet "the offspring of the slain" (*Maktulzade*) [6], [7]. Kara Mustafa Paşa founded various charity complexes and endowed hundreds of properties around the empire. His endowment was the largest of the 17th century in terms of the number of properties, their revenues, and economic role [8]. His trust deeds

* Corresponding author: rkasmo@fsm.edu.tr

are preserved in the register book No. 641 dated 2/1089 - 3/1678 [9]. The deed that includes Aleppo's properties is the latest among them; written in Ottoman and dates from 9/1093 to 9/1682 [9]. It lists many endowed properties in Istanbul, Kayseri, Mudanya, Kamaniçe, and Aleppo. The patron's Friday Mosque in Galata is named as the endowment's beneficiary structure in the deed. Furthermore, precise sums of money are to be distributed to the destitute in Mecca and Medina. Any revenue remaining after the mosque has been served and the properties have been maintained will be forwarded to Istanbul and added to the revenues of the other endowed properties [9].

Given the paucity and fragmentation of knowledge on the endowed buildings of Merzifonlu Paşa in Aleppo, this article seeks to shed light on the heritage importance of these buildings by presenting their history, architectural characteristics, and the transformations they have undergone within the urban dynamics of the city. In particular, the article presents an architectural analysis of the most important building of the endowment, Khan al-Wazir, based on a field study conducted between 2010 and 2012. The architectural survey of the khan, comparative analysis with similar buildings, consulting the local historical references and the photographic archives of Aleppo preserved in the Museum of Islamic Art in Berlin and the Aga Khan Documentation Center contributed all to understanding the building's layout and tracking the changes that occurred throughout the years. Finally, the current state of preservation of the buildings is discussed, especially after the extensive damage that the old city of Aleppo suffered during the years of armed conflict (2012-2016) and the earthquake of February 2023. This was done with the help of the ongoing damage assessment studies, whether based on satellite image analyses or on-site inspections [17, 18, 19].

2. SETTING THE CONTEXT: ALEPPO IN THE 16TH AND 17TH CENTURIES

Since its foundation, Aleppo's location has given it the potential to become a significant production center and commercial hub. On the one hand, the city's natural resources have adequately supplied commodities for local manufacturing sectors, such as soap, cloth, and leather work, the quality of which has acquired an international reputation for excellence. The city, on the other hand, is located astride the caravan routes that connect Anatolia to Syria and is about equidistant from the Mediterranean and the Euphrates, the preferred trading route between Asia and Europe since at least the early Bronze Age [10].

Under Ottoman rule, which started in 1516, Aleppo was changed from a frontier city on the borders of Islamic territories to an internal urban center well protected from outside aggression. Furthermore, the Ottoman Empire's expansion into Iraq, North Africa, and Arabia created a huge market in which people and goods could freely move. Because of its location on major trade routes, Aleppo profited from the activity of these inner currents [11]. This vitality grew more as Oriental trade with Europeans developed, fueling the city's economic, demographic, and eventually urban expansion. Despite frequent catastrophic cholera and plague, the population progressively increased from roughly 70,860 in 1536 [12] to around 120,000 in the mid-17th century [13]. Aleppo's built-up surface area increased by approximately 50%, from 238.5ha in 1516 to 349ha at the beginning of the 18th century [10]. With these figures, Aleppo rose to become the Empire's third-largest city behind Istanbul and Cairo.

The sixteenth century, in particular, saw a rise in construction activity concentrated on the city's central commercial zone. The need for commercial and manufacturing facilities was considerable, and the Ottoman governors reacted by establishing large complexes. The complexes of Hüsrev Paşa (1546), Dukakinzade Mehmed Paşa (1556), Sokollu Mehmed Paşa (1574), and Behram Paşa (1583) were aligned to the south of the main thoroughfare of the central commercial zone, from east to west, and occupied an area that had previously been characterized by mixed residential, public, and commercial use. The commercial core of Aleppo was doubled and turned into an economic quarter known locally as "*el-Mdine*" as a result of these complexes' enormous size, architectural quality, and diversity of services that they accommodate. More than a square kilometer of interconnecting alleys housed shops, workshops, mosques, public baths, and khans under one continuous roof [14].

Aleppo's upward curve, however, has been far from undifferentiated. Local revolts (1607, 1657) and the transfer of the Iranian silk trade to Arabian Gulf seaports (1619-29) threatened the city's international trade throughout the 17th century [4]. In contrast, Aleppo remained an important regional market hub and one of

the Ottoman Empire's major manufacturing centers; its soap and cloth were popular across the Empire, and were shipped to major cities in Egypt, Iraq, and Anatolia [11]. As international trade gave way to regional one, the city's role has changed from an intermediary into a supplier of locally produced products. Consequently, urban investments drifted away from the central commercial zone toward suburban centers, which started to emerge in the late 16th century. These centers attracted several complexes that provided infrastructure for manufacturing activities and were inhabited by populations who offered cheap labor and professional skills [10]. Ottoman officials' development of the central commercial zone slowed but did not entirely stop, with the establishment of two major endowments: Arnavut Mehmed Paşa (1635) and Merzifonlu Kara Mustafa Paşa (1682). However, none of these complexes can rival the grand complexes of the 16th century.

3. MERZIFONLU KARA MUSTAFA PAŞA'S ENDOWED BUILDINGS IN ALEPPO

According to the trust deed, the buildings endowed by Merzifonlu Paşa in Aleppo include Khan al-Wazir, a public fountain (*çeşme*), a sabil (*sebilhane*), two qaysariyyas, a covered market (*çarşı*) and a spacious residence used as the headquarters of the Islamic Law Court (*al-Mahkama ash-Shar'iyya*) [9] (Figure 1). In the following, brief descriptions of these structures, their locations, and their current state of conservation are presented.



Figure 1. The Locations of the Buildings Endowed by Merzifonlu Kara Mustafa Paşa in Aleppo (by author)

3.1. Khan al-Wazir

Khan al-Wazir is considered one of Aleppo's largest and most important khans. The variety of its spaces, the richness of its adornment and the fact that it has preserved many of its original features give a clear idea about the development of commercial architecture in Aleppo during the Ottoman period. The khan is located in the neighborhood of Suwayqat Ali at the northeastern corner of the central commercial zone. Although a bit isolated from the network of covered markets, the khan occupies a vital location overlooking the thoroughfare that leads from the central commercial zone to the northern gate of the intramural city, Al-

Nasr Gate "*Bab al-Nasr*" (Figure 1). This axis was one of the most vibrant urban nodes of the city since medieval times and continued to develop well through the Ottoman period [15]. The khan itself is surrounded on three sides by alleys and on the south by Khan al-Kittan, Qaysariyya al-Kittan and other structures (Figure 2).

Very little is known about the history or the function of the khan except that it was granted the monopoly of housing silk merchants from Baghdad, Basra and the Safavid Empire [5]. Before the armed conflict in the city (2012-2016), the khan was an active commercial facility occupied by tenants on long-term leases. It mostly housed wholesale offices and textile storage facilities. There were also several workshops on the first floor, the office of the Swiss Honorary Consulate, and several abandoned units.



Figure 2. A General View of Khan al-Wazir from Northwest (Kasmo, 2010)

3.2. The Public Fountain and Sabil

The deed lists two water facilities attached to the khan; a public fountain beside the entrance on the khan's western wall, and a sabil at the khan's southeastern corner [9] (Figure 1). The public fountain is set within a double niche surmounted by three carved pointed arches and flanked by two decorative shields (Figure 3). The sabil has a prominent location at the beginning of the thoroughfare that connects the citadel's perimeter to Al-Nasr Gate in the north. It is entered through a modest arched doorway and has two large grilled windows facing the street. The sabil's façades are entirely built with finely cut limestone ashlars. The corner is chamfered and crowned with delicately carved muqarnas. Above each window are two stone consoles that once supported wooden canopies that no longer exist (Figure 4). According to the deed, the two facilities were regularly supplied with water from the city's main canal [9]. Unfortunately, both are no longer functional. The sabil is now a shop, while the fountain was renovated in 2006 with a calligraphic statue installed within.



Figure 3. The Public Fountain: A. General View after Renovation (Haddad, 2012©), B. Decorative Carvings (Gussone, 2007©), C. A Decorative Shield (Kasmo, 2010) © Museum for Islamic Art in Berlin

3.3. The Two Qaysariyyas

Before delving into the two qaysariyyas of the endowment, it will be useful to provide a brief overview of the qaysariyya's various forms in Aleppo. The qaysariyya is a type of commercial building that has gained diverse functions and designs based on the region and the time of construction. Markets were referred to as such in Aleppo's medieval historical accounts. According to the descriptions, there were two forms of qaysariyyas. One was set out for precious goods and consisted of shops arranged around a central courtyard, while the other had a linear layout. The second form of qaysariyyas can be distinguished from regular markets by their larger size and numerous pathways, whereas the market only had one passage [16]. The qaysariyyas took on a manufacturing function in the 16th century and were located near khans or markets that dealt with the similar commodities. Some of the qaysariyyas were free-standing structures in the shape of small khans, while others were integrated in larger khans [10]. These were on the first floors of the khans and they comprised of small rooms on either side of a corridor. During the 17th and 18th centuries, the qaysariyyas' manufacturing role developed significantly, and as a result, they grew in size, encompassing large workshops and, in some cases, offering workers affordable and basic housing [4].



Figure 4. The Sabil (Kasmo, 2010)



0) **Figure 5.** A General View of Khan al-Wazir's Entrance with the Qaysariyya before its Demolition (Bavarian War Archive, 1918) © Museum for Islamic Art in Berlin

The deed mentions a first qaysariyya west of the khan, with its entrance in front of the fountain (Figure 1). It was a two-story building with 25 rooms, shops, workshops, a kitchen, a bakery, and a large depot arranged around a central courtyard [9]. Unfortunately, this qaysariyya was demolished without being surveyed in the 1950s to make way for vehicle traffic through Khan al-Wazir Street (Figure 5). Although the second qaysariyya is not explicitly referred to by this name in the deed, its type can be inferred from the description. This one was located close to the entrance of Suq al-Zarb at the foot of the citadel (Figure 1). It was a two-story building with shops, rooms, a large stable, and two water wells [9]. Since this structure cannot be identified today, it is possible that it collapsed during the 1822 earthquake or was taken over by later structures in the area.

3.4. The Covered Market

The market, known locally as Old Istanbul Market (*Suq Istanbul al-'Atiq*), was devoted to textile products and was one of the busiest in the central commercial zone. It is located to the south of the Great Umayyad Mosque, adjacent to Suq al-Jukh and Qaysariyya al-Ulabiyya, both of which are part of Dukakinzade Paşa's complex (1556) (Figure 1). The (L)-shaped market extends mainly along the east-west directionality and consists of a central pathway covered by cross vaults and two rows with a total of 40 shops (Figure 6). The market's two entrances are topped by pointed arches with muqarnas carvings on their imposts. The market was heavily damaged during the armed conflict (2012-2016); it was devastated by massive flames that erupted on the eastern side of the Great Mosque, causing about 1500 shops to burn down and numerous markets to collapse [17], as well as by random bombing while combat continued in the vicinity. Satellite imagery from 2014 shows the market's eastern end completely destroyed, with one spot where the roofing vaults partially collapsed. The market is currently part of the (Reconstruction and Rehabilitation of the Markets in the Central Commercial Zone) plan, which began in 2018, and it will be restored shortly [18].



Figure 6. The Old Istanbul Market: A. Plan (by author), B. A General View (Kasmo, 2011), C. The Northern Entrance (Kasmo, 2011), D. Decorative Details (Kasmo, 2011), E. Damages as appear in 2014.

3.5. The Headquarters of the Islamic Law Court

The Islamic Law Court in Aleppo was housed in a vast residence in al-Bandara neighborhood since the 16th century (Figure 1). The residence was originally endowed by al-Hasan Ibn Balban al-Mihmandar in 1303

to support his famous mosque in the city [1]. Then, it was used as a court until the 1960s, when the court was relocated to the new "Justice Palace" near the citadel. Merzifonlu Paşa purchased the residence in 1682 and added it to his endowment without changing its function. The residence appears to have been seriously damaged in the 1822 earthquake, as several sections were allocated for shops and rented out in 1868 to finance restoration costs [1]. The residence consists of three neighboring units grouped around inner courtyards; one served as the judge's private dwelling, the second as the court headquarters, and the third was devoted to the clerks and archives [19]. The General Directorate of Islamic Endowments restored the building and put it available for rent in the mid-1980s. The southern unit was allocated for commercial use, whilst the northern units were rented for residential use and therefore have retained their original layouts. During the armed conflict (2012-2016), the building was looted and moderately damaged. Recent site images show that random shelling has partially destroyed several spots [19] (Figure 7).



Figure 7. The Northern Units of the Residence, before (David, 1990©) and after (Grandin, 2019©) the Armed Conflict © Museum for Islamic Art in Berlin

4. AN ARCHITECTURAL ANALYSIS OF KHAN AL-WAZIR

In terms of design and building techniques, Khan al-Wazir adheres to the local traditions established in Aleppo's 15th-century Mamluk khans and adapted into the 16th-century Ottoman khans. It does, however, exhibit certain design innovations and excels earlier Ottoman khans with its advanced level of elaboration and workmanship.

4.1. Plan

The khan is a two-story structure occupying an approximate area of 4100m2 with its spaces arranged around a central courtyard. The extreme irregularity of the plot has resulted in the courtyard's unusual shape, which is trapezoidal, with dimensions of $40 \times 50 \times 32.3 \times 47$ m, rather than square or rectangular as in the city's other khans (Figure 8). The khan's entrance is in the middle of its western wing. It leads to a vestibule with four shops and two small guarding rooms. The rooms on the ground floor are placed along the four sides of the khan, overlooking the courtyard without a preceding portico (Figure 9, 29, 30). The rooms are thus deep and divided into two sections: one for storage and one, containing a fireplace, for lodging or commercial activity (Figure 10). The absence of the preceding portico on the ground floor in Aleppo's khans was a feature that appeared in the 17th century. Similar examples are seen in the later Khan al-Absi and Khan al-Haj Musa (Figure 11), both from the mid-18th century. This feature might be explained by the increasing need for storage spaces, arising from Aleppo's shifting role from a caravan trade middleman to a center for raw materials and locally produced commodities beginning in the second half of the 17th century [11]. As a result, this feature can be considered a kind of functional adaptive design. As there is no preceding portico necessitated, small vestibules help to provide access to the rooms at the courtyard's corners. A wide entrance in the eastern wing leads to the stable, which extends behind the rooms (Figure 12). It is a vast irregular space divided into two aisles. Each aisle is made up of multiple bays that are covered with cross vaults.



Figure 8. Khan al-Wazir: Ground Floor Plan (by author)



Figure 9. A General View of the Khan's Courtyard from West (Kasmo, 2010)



Figure 10. Two Types of Fireplaces in the Khan (Kasmo, 2010)



Figure 11. General Views of the Courtyards of Khan al-Absi, on the left, (Kasmo, 2011) and Khan al-Haj Musa, on the right, (Grandin, 2020[©]) showing the absence of preceding porticoes on ground floors. [©] Museum for Islamic Art in Berlin



Figure 12. The Entrance, on the left, and a General View, on the right, of the Khan's Stable (Kasmo, 2010)

Three stairways lead to the first floor: two on either side of the entry vestibule, and one in the middle of the eastern wing facing the khan's entrance (Figure 13).



Figure 13. Khan al-Wazir: First Floor Plan (by author)

Preceding porticoes along the eastern, northern, and southern sides articulate the upper floor behind which the rooms are set (Figure 9). The preceding porticoes are built in two different types. The wide sections are covered with cross vaults supported by stone piers (Figure 14), while the narrow sections are covered with stone slabs resting on multi-centered arches and polygonal columns with muqarnas capitals (Figure 15). The area above the stable is occupied by a qaysariyya, which consists of a corridor serving two rows of rooms (Figure 16).



Figure 14. A Section of the Preceding Portico in the Southern Wing of the Khan (Kasmo, 2010)
 Figure 15. A Section of the Preceding Portico in the Eastern Wing of the Khan (Kasmo, 2010)
 Figure 16. A General View of the Qaysariyya on the First Floor (Kasmo, 2010)

Another noteworthy space is a little chamber that is positioned above the stair in the eastern wing and has a large arched opening through which it overlooks the courtyard (Figure 17). Two stone corbels suggest that it was preceded by a wooden kiosk or a balcony. The position of this room is reminiscent of the loggias seen in the city's Mamluk khans, such as Khan al-Sabun (late 15th century) (Figure 18) and Khan Khayer Bek (1514) (Figure 19), and in the more contemporary Khan al-Gumruk (1574). This room's purpose cannot be confirmed; however, its small size and lack of a fireplace imply that it was used for general surveillance of the khan rather than lodging.



Figure 17. The Room above the Stair in the Eastern Wing (Kasmo, 2010) Figure 18. The Loggia in Khan al-Sabun (Kasmo, 2011) Figure 19. The Loggia in Khan Khayer Bek (Kasmo, 2011)

The upper western wing has no preceding portico. Instead, it consists of two rows of rooms accessed from a central hallway with fireplaces and upper grilled windows (Figure 20). A large hall of a cruciform plan, with a square domed central area and four iwans, punctuates this hallway above the entrance (Figure 21, 17, 20). This type of hall can be found in several 16-century Aleppo's khans, such as Khan al-Gumruk and Khan al-Hibal (1594) (Figure 22). The fact that these halls overlook both the streets and the interior courtyards of the khans makes them strategically placed. Although their original function is unknown, it's possible that they acted as reception spaces for the administrators or prestigious guests. David [20] examined the hall of Khan al-Gumruk and likened it to the grand reception halls found in the domestic architecture of the wealthy.



Figure 20. The Hallway in the Western Wing of the Khan (Kasmo, 2010) *Figure 21.* The Cruciform Hall in the Western Wing of the Khan (Kasmo, 2010) *Figure 22.* The Cruciform Hall above the Entrance of Khan al-Hibal (Kasmo, 2011)

Instead of a mosque, a small domed water basin occupies the courtyard's center, slightly to the north of the entrance axis. Researchers incorrectly assumed that this basin was a small mosque and so the beneficiary of the khan's revenue [5]. However, the deed clearly states that it was a basin supplied with water from the city's main channel system [9]. The basin is covered with a polygonal dome that rests on an octagonal base, within which four small windows are opened (Figure 9, 23). The base in turn rests on the supporting walls except for the western side. At this side, three multi-centered arches and two columns with muqarnas capitals support the base (Figure 24). The columns are tied to the walls with iron bars. The deed also mentions toilets in the northern wing, several wells in the courtyard, and kitchens that no longer exist.



Figure 23. A Photo from 1925 Showing the Domed Water Basin before the Later Encroachments [21] *Figure 24.* The Arches and Columns Supporting the Dome of the Water Basin (Kasmo, 2010)

4.2. Facades

The khan's entrance is marked by elaborately decorated façades facing the outer street and the internal courtyard and announcing the importance of the building. These facades evoke the formal conventions of Mamluk commercial architecture in Aleppo in terms of composition, building techniques, and decorative elements. However, instead of duplicating Mamluk norms they adhere to Ottoman modifications of these conventions, which were firmly established throughout the 16th-century khans. They are particularly reminiscent of the entrance's façades of Khan al-Gumruk (1574) (Figure 27). The exterior façade of the entrance is distinguished from the rest of the wall by a higher roofline (Figure 25). The doorway and two upper windows are built with alternate courses of polychromic stones and framed with a broad band carved with geometric ornament. Between the two windows, there is a plain marble plate that may have been intended for an inscription. In the upper section of the facade and just under the cornice, there are two small windows and a star-shape lunette set within a finely carved screen in a form of blind semi-circular arch. Three roundels adorn the facade: one decorative shield above the marble plate and two roundels with feline figures on either side of the doorway. In her discussion of Aleppo's 16th- and 17th-century Ottoman architecture, Watenpaugh [5] analyzed the usage of feline roundels highlighting how they have been recontextualized from their military-functional context to a new functional and architectural context as "a visual quotation from the city's architectural history". The entrance's lavish facade is boldly contracted by the massive exterior walls of the khan, which are plain and punctuated by small rectangular windows and an upper row of waterspouts.



Figure 25. The External Façade of Khan al-Wazir's Entrance: A. A General View (Kasmo, 2010), B. The Carved Decorative Band (Kasmo, 2010), C. A Roundel with a Feline Figure (Gussone, 2007©) © Museum for Islamic Art in Berlin

Seen from within the courtyard, the façade of the entrance is equally lavish. It is framed by a decorative strip of geometric ornamentation that ends with two engaged braided colonnettes at both sides of the doorway (Figure 26).



Figure 26. The Courtyard Façade of Khan al-Wazir's Entrance: A. A General View (Alafandi, 2010©), B. The Upper Recessed Bays (Delpal, 1992©) © Museum for Islamic Art in Berlin

Above the doorway are two recessed bays that are strikingly similar to those on the internal façade of Khan al-Gumruk (Figure 27). Each bay contains a lower rectangular window framed with polychromic stones and an upper small window with a multi-centered arch. The bays are decorated with joggled stones, braided colonnettes and muqarnas strips. A small round lunette is placed inside checkerboard frames in the center, and two small windows are set within wide frames of carved geometric ornament and checkerboard bands in the two upper corners of the façade.



Figure 27. The External Façade, to the left, and the Courtyard Façade, to the right, of Khan al-Gumruk's Entrance (Kasmo, 2011)

In addition to this façade, the inner atmosphere of the khan is further enriched by the various types of arches in the upper porticoes and columns with their muqarnas capitals, as well as carved vegetal and geometric ornamentation above the windows and doors of the rooms (Figure 28). Because some of the carvings are incomplete, they seem to have been executed on-site after the construction.



Figure 28. Carved Ornament above the Openings overlooking the Courtyard (Kasmo, 2010)

4.3. Building Materials and Structural Elements

The khan is mainly built of limestone, with lime-based mortar serving as a binder. Stone ashlars are used for the external surfaces of walls and other structural elements. For internal surfaces, the blocks are rough and covered with lime-based plaster. Vaults are filled with a mixture of rubble stone and lime mortar and then plastered. Yellow limestone, which is more durable, is used for roofing slabs, some lintels, stairs and pavement slabs. In addition, basalt and white marble ashlars are used to build the alternate polychromic

courses in the entrance's façades. Bricks for domes, wood for doors, window shutters, and some lintels, and iron bars for structural ties, clamps and window protection grills are among the other building materials.

The structural system is a typical load-bearing system comprising of masonry walls, piers, columns, and arches. The walls are double-leaf with an average thickness of 85-110cm on the ground floor and 70-95cm on the first floor. The piers are rectangular with average dimensions of 112×130 cm on the ground floor and 100×124 cm on the first floor. There are two types of arches used: pointed and multi-centered. The largest span measured is 290cm. All the khan's spaces are vaulted with cross or barrel vaults. The use of domes is confined to the reception hall above the entrance and the water basin in the courtyard. The first is hemispherical and rests directly on the walls with triangular pendentives being used as transition elements. The second is polygonal, with an octagonal drum supporting it. Finally, stone slabs resting on the walls cover the narrow porticoes on the first floor. The span of these roofs is 150 cm.

4.4. Previous Modifications and Interventions

Unlike the other major khans in Aleppo, Khan al-Wazir was not involved with the accommodation of European consulates or communities, which helped to retain much of its original architecture and decoration. According to the endowment's accounting books, periodic repairs and maintenance were carried out on a regular basis at least until the early 19th century. For example, between 1723 and 1724, 360,000 silver coins (akce) were paid for the repair of the khan [8]. As a result, it appears that the structure did not undergo considerable change until the 20th century. A two-story block abutting the northern side of the courtyard's water basin was built in 1913, according to the inscription above its entrance. Although built with traditional materials and techniques, the high block has obscured the basin's, disturbing the original appearance of the courtyard. Its construction has also allowed for additional incompatible encroachments surrounding the basin. During the French Mandate period, the khan was repaired under the direction of French architect Ecochard [22]. These repairs were completed in 1939, according to an inscription on the capital of a column in the eastern wing. According to the available drawings and photographs preserved in the digital collection of Ecochard [22], the repairs were concentrated on the khan's external northwestern corner, the western section of the northern upper portico, and the northern section of the eastern upper portico (Figure 29). The facade and section drawings show that the consolidation works in the upper porticos included replacing deteriorated stones, adding metal ties (Figure 15) and clamps to prevent the disintegration of the masonry system, and replacing the roofing stone slabs in the northern portico with a thin reinforced concrete slab (Figure 32).



Figure 29. The Northern Section of the Eastern Upper Portico during the 1939 Repairs (Michel Ecochard Archive ©) and after (Kasmo, 2010) © courtesy of Aga Khan Documentation Center, MIT Libraries (AKDC@MIT)

Within the scope of the city's modern master plans, which envisioned opening vehicular routes within the traditional urban fabric of the Old City, the eastern side of the khan's northern wing was demolished in the 1950s to make way for the road through Khan al-Wazir Street that links the citadel's perimeter to the Great Mosque (Figure 30). It was after around 40 years when this section was reconstructed. In terms of mass and

form, the new structure was consistent with the khan's overall layout, preserving its integrity. A secondary entrance was opened on the north-eastern corner of the new section in order to improve access and mobility.



Figure 30. The Eastern Section of the Northern Wing after its demolition (David, 1982©) and after its reconstruction (Kasmo, 2010) © Museum for Islamic Art in Berlin

4.5. Conservation Status

Prior to the armed conflict in the city, the khan's conservation status was affected by two major factors. The first was the incompatible usage and interventions conducted by some shopkeepers. It ranged from poor repairs to detrimental additions and excessive renovations of some units. The second factor, on the other hand, was the lack of necessary periodic maintenance. This was most noticeable in the khan's idle units and common spaces, such as the upper roof, porticos, and courtyard. As a result, a variety of material and structural damages were observed (Figure 31). Many of the stone piers had significant cracks and deteriorated stone blocks. Disintegration between the roofing vaults and the porticos' arches was visible in certain points, and several wooden lintels were very decayed. There was also a noticeable subsidence in the courtyard pavement due to car parking and water leakage, as well as in the upper roof screeds.



Figure 31. Some of the Conservation Problems Observed in 2010 (Kasmo, 2010)

A significant structural deformation was observed in the northwestern section of the khan. A crack, with a slight rotation, ran along the northern side of the khan's external western wall, while from inside, the portico's slab exhibited twisting and partial breakage (Figure 32). This problem may have originated from the use of reinforced concrete in this section within the scope of 1939 repair work, and later from the demolition and reconstruction of the northeastern section, which also incorporated the use of reinforced concrete.



Figure 32. The Structural Problems Observed in the Khan's Northwestern Section (Kasmo, 2010)

During the years of the armed conflict, the khan was looted and affected by random shelling. Satellite imagery from 2014 to 2016 shows the collapse of the roof at the northeastern corner, where the new entrance is located, the partial collapse of the northern wall of the block abutting the water basin in the courtyard, and the partial collapse of the reception hall's dome in the western wing and the external façade wall (Figure 33). Because the building was not restored, these holes in the roofs have exposed the structure to weathering and internal degradation over the years. The structural flaws magnified the impact of the recent earthquake in February 2023, causing alarming damage in multiple points. The most urgent is the upper section of the unique external façade of the entrance which is at the risk of complete collapse. The façade has been temporarily supported, and efforts to restore it as quickly as feasible are ongoing.



Figure 33. The Partial Destruction of the Dome and the External Façade Wall (Dayoub, 2023©) © Museum for Islamic Art in Berlin

5. CONCLUSION

The expansion of Aleppo's central commercial zone by Ottoman officials via patronage of large complexes slowed in the 17th century and shifted towards the suburbs. This was mostly due to the decline of long-distance trade and the relocation of its center to Bursa and Izmir. Despite the gradual revival of this trade in Aleppo in the second half of the 17th century, it was not as intense as it had been in the 16th century. This historic and urban context highlights the significance of Merzifonlu Paşa's endowed buildings, which were among the few monumental structures built in the central commercial zone throughout the 17th

century. On the other hand, these structures were the last of the significant Ottoman projects in this zone provided by an imperial patron with no familial links to Aleppo before local notables emerged as the principal urban patrons in the 18th century.

The size of these structures, their commercial role, as well as the richness of their architecture harkened back to the patterns set in 16th century complexes. In particular, the endowment's main building, Khan al-Wazir, did not differ significantly from other khans in Aleppo and around the Empire in terms of basic configuration. However, the level of its craftsmanship distinguishes it from other khans, since every detail is rendered exquisitely. Indeed, many of the local construction traditions are evident in its elaborate façades, such as the extensive use of polychromic stones, the emphasis on the entry facade and its composition, and the presence of Mamluk shields. The phenomenon worth noting is that Khan al-Wazir employs the same repertoire of forms as Khan al-Gumruk, with the addition of feline imagery. As a result, it represents the culmination of the "Ottomanization" process, characterized by Watenpaugh [5] as "the Ottoman appropriation of the city's local architectural repertory, particularly the most recent Mamluk layer". The Mamluk forms were extracted from their original contexts and recombined to new formulas. Furthermore, unlike many other khans, Khan al-Wazir is a freestanding edifice independent from its surrounding commercial fabric, allowing an unobstructed view of its massive structure and spectacular entry façade. This feature was accentuated following the demolition of the qaysariyya that stood in front of its entrance. Today, the khan's opulent exterior draws the attention instantly and forms an important urban landmark (Figure 2).

The field study of Mustafa Paşa's endowed buildings in Aleppo showed that they had been affected by the city's urban development. Khan al-Wazir was subjected to a partial demolition and reconstruction with no substantial impact on the integrity of its layout. Additional spatial transformations occurred inside it as a result of functional changes in its units. Both qaysariyyas were demolished. The fountain and sabil have survived but are no longer functional. The Islamic Law Court was relocated from the endowed residence, which was thereafter given for residential and commercial rent. Only the covered market has retained its original structure and active function within the network of the central market zone. Unfortunately, the armed conflict and the earthquake in February 2023 caused varied degrees of damage to the buildings. In particular, the khan represents a situation that calls for urgent intervention to rescue its distinctive facade from collapse. Enduring urban interventions, functional changes, war, and earthquake damage, the existing endowed buildings of Kara Mustafa Paşa represent today a unique example of urban activity and local civil architecture in Aleppo during the seventeenth century. There is a pressing need to restore these buildings in order to revive their cultural, urban, architectural, and functional values.

Author's note:

The author would like to thank Prof. Dr. Zeynep AHUNBAY and Prof. Dr. Stefan WEBER for their helpful remarks on an earlier version of this research. The author is also grateful to the Archives of the General Directorate of Waqfs (*Vakıflar Genel Müdürlüğü Arşivi*) in Ankara, the Museum of Islamic Art in Berlin, and the Aga Khan Documentation Center for facilitating the research in their archives and photographic collections, and, to the shops' owners for facilitating the field study of the khan and covered market.

REFERENCES

- [1] Al-Ghazzi, K. (1926). *Nahr al-Dhahab fi Ta'rikh Halab*, 3 vols. 1st ed. Aleppo: Al-Matbaa al-Maruniyya. [in Arabic].
- [2] Al-Tabbakh, M. R. (1926). *I'lam al-Nubala' bi-Tarikh Halab al-Shahba'*. 7 vols. Aleppo: Al-Matbaa al-Ilmiyya. [in Arabic]
- [3] Eroğlu, G., Babuçoğlu, M. & Köçer, M. (Eds.). (2012). *Osmanl Vilayet Salnamelerinde Halep*. Ankara: Ortadoğu Stratejik Araştırmalar Merkezi Yayınları. [in Turkish] Retrieved from: https://www.orsam.org.tr//d_hbanaliz/a_yayinlar_kitap_3tr.pdf/ Last accessed: 02.06.2023.
- [4] Masters, B. (1988). The Origins of Western Economic Dominance in the Middle East: Mercantilism and the Islamic Economy in Aleppo, 1600-1750. New York: New York University Press.
- [5] Watenpaugh, H. Z. (2004). *The Image of an Ottoman City: Imperial Architecture and Urban Experience in Aleppo in the 16th and 17th Centuries*. Leiden: Brill. DOI: 10.1163/9789047404224
- [6] Heywood, C. J. (2009). Kara Mustafa Pasha. In P. Bearman, Th. Bianquis, C.E. Bosworth, E. van Donzel & W.P. Heinrichs (Eds.), *Encyclopedia of Islam II*. Leiden: Brill. Vol. 9, 514-515.
- [7] Özcan, A. (2004). Merzifonlu Kara Mustafa Paşa. In *TDV İslam Ansiklopedisi*. Ankara: TDV İslâm Araştırmaları Merkezi. Vol. 29, 246-249. [in Turkish] Retrieved from: https://cdn2.islamansiklopedisi.org.tr/dosya/29/C29009494.pdf/ Last accessed: 02.06.2023.
- [8] Pantık, R. (2021). Merzifonlu Kara Mustafa Paşa Vakıfları: Yönetimi, Kentsel Gelişime Katkıları ve İktisadi Yapısı. [Unpublished Doctorate thesis]. Ankara: Hacettepe Üniversitesi/Sosyal Bilimler Enstitüsü. [in Turkish] Retrieved from: http://www.openaccess.hacettepe.edu.tr:8080/xmlui/handle/11655/23410/Last accessed: 18.06.2023.
- [9] Vakıflar Genel Müdürlüğü Arşivi (VGMA). Merzifonlu Kara Mustafa Paşa Vakıf Defteri: 641.
- [10] Sauvaget, J. (1941). Alep: Essai sur le développement d'une grande ville syrienne, des origines au milieu du XIX e siècle. 2 vols. Paris: P. Geuthner. [in French]
- [11] Masters, B. (1999). Aleppo: The Ottoman Empire's Caravan City. In *The Ottoman City between East and West: Aleppo, Izmir and Istanbul*. USA: Cambridge University Press.
- [12] Çakar, E. (2003). XVI. Yüzyılda Haleb Sancağı, (1516-1566). Elazığ: Fırat Üniversitesi Orta-Doğu Araştırmaları Merkezi Yayınları [in Turkish]
- [13] Raymond, A. (1984). The Population of Aleppo in the 16th and 17th Centuries. *International Journal of Middle East Studies*, 16 (4), 447-460. DOI: 10.1017/S002074380002849X
- [14] Raymond, A. (1984). *The Great Arab Cities in the 16th-18th Centuries: An Introduction*. New York: New York University Press.
- [15] David, J. C. (1998). La Suwayqat 'Ali à Alep. Damascus: Presses de l'Ifpo. [in French] DOI: 10.4000/books.ifpo.7579
- [16] Streck, M. (2009). Kaysariyya. In P. Bearman, Th. Bianquis, C.E. Bosworth, E. van Donzel & W.P. Heinrichs (Eds.), *Encyclopedia of Islam II*. Leiden: Brill. Vol. 4, 840-841.

- [17] David, J. C., Kasmo, R., Cunliffe, E. and Fiol, M. (2018). *Five Years of Conflict: The State of Cultural Heritage in the Ancient City of Aleppo*. Fiol, M., Tabet, Y. and Evers, L. (Eds.). Paris and Geneva: UNESCO/UNITAR Publication. Retrieved from: https://unesdoc.unesco.org/ark:/48223/pf0000265826 / last accessed: 25.06.2023.
- [18] Kasmo, R. and Kutiefan, L. (2021). Post-war Recovery of the Old City of Aleppo: The Rehabilitation of Suq al-Saqatiyya as a Pilot Project. In Kealy, L., Aslan, Z., De Marco, L., Hadzimuhamedovic, A., Kono, T., Lavenir, M. and Marchand, T. (Eds.). *ICOMOS-ICCROM Analysis of Case Studies in Recovery and Reconstruction*. France and Sharjah: ICOMOS & ICCROM publications. Vol. 2, 90– 115.

Retrieved from: https://openarchive.icomos.org/id/eprint/2448/ last accessed: 25.06.2023.

- [19] Grandin, T., Kasmo, R., & Neglia, G. A. (2021). Post-Conflict Documentation of a Historic Neighborhood: (Suwayqat Ali Area Old City of Aleppo). (D. Dayoub, R. Kasmo, & A. Mollenhauer, Eds.). Heidelberg: arthistoricum.net.
 Retrieved from: https://books.ub.uni-heidelberg.de/arthistoricum/reader/download/848/848-16-93150-3-10-20210409.pdf/ last accessed: 25.06.2023.
- [20] David, J. C. (1996). Le consulat de France à Alep sous Louis XIV. Témoins architecturaux, descriptions par les consuls et les voyageurs. In *Res Orientales*, (8), 13-24. [in French]
- [21] Legrain, L. (1925). The Joint Expedition to Ur of the Chaldees. In *The Museum Journal*, XVI (2), 81-124. Retrieved from: https://www.penn.museum/sites/journal/1329/. last accessed: 15.09.2023.
- [22] Michel Ecochard Archive, Aga Khan Documentation Center, MIT Libraries. Retrieved from: https://archnet.org/collections/29/ last accessed: 28.06.2023.