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Article

The importance of the birdhouses at the Ayazma Mosque in eighteenth-century Ottoman architecture

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ABSTRACT

The Üsküdar Ayazma Mosque (1760–1761), commissioned by Sultan Mustafa III, is an important example of early Ottoman Baroque architecture. This research investigates the birdhouses incorporated into the facades, gates, and hünkâr pavilion, viewing them as micro-architectural elements that reflect the stylistic transformations of the eighteenth century. The methodological approach of this study encompassed direct observation and high-resolution photographic documentation of twenty extant birdhouses, conducted over a period from 2022 to 2024. These findings were cross-referenced with the official restoration plans from the Istanbul Foundations 2nd Regional Office and compared with contemporaneous Istanbul buildings to assess their spatial distribution. The results obtained demonstrate the exceptional status of the Ayazma Mosque, which features an unrivalled concentration and variety of birdhouses. The twenty documented examples are evenly distributed between ten multi-story kiosk-type structures and ten arched alcove-type units. This equilibrium is indicative of the architectural ambivalence that characterised the period's transition from classical to Baroque styles. The integration of traditional penci arches alongside elaborate palace-like pavilion forms further highlights the synthesis of Eastern and Western architectural influences. The study concludes that these birdhouses are not merely decorative but also represent the Islamic concept of merhamet (compassion) and the institutional framework of waqfs (charitable endowments). Furthermore, they symbolise sultanic visibility and global legibility in an era when the Ottoman Empire sought to redefine its global role.

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INTRODUCTION

It is evident that throughout history, birds have been occupying a uniquely privileged place in human culture. They have been revered as symbols of spirituality, freedom and divine grace across various different civilisations. In the Ottoman world, this deep-rooted veneration found a remarkably concrete architectural expression in the birdhouse, a purpose-built micro-architectural unit conceived not as a mere functional shelter but as a meaningful component of the built environment. These structures embodied the Islamic ethic of *merhamet* (compassion) and a broader cultural commitment to the welfare of living creatures, one formally embedded within the institution of waqfs (charitable endowments), which routinely made explicit provision for the care of animals alongside their more celebrated humanitarian functions. While comparable traditions can be traced across a vast geographical arc stretching from the Indian subcontinent and Central Asia to the Balkans — suggesting a history of sustained intercultural exchange — it was within the Ottoman context that the birdhouse evolved most visibly alongside broader transformations of monumental architecture, reaching a moment of particular sophistication during the eighteenth century, when the emergence of Baroque aesthetics began to fundamentally reshape the formal and symbolic language of imperial building.

In traditional societies, special structures were built for birds to benefit from them in the most effective way. In this respect, birdhouses stand out as special structures designed only for the shelter of birds, separated from other structures. Such structures were widely practiced in Ottoman geography and attracted attention by being located on the structures used by people. In the Ottoman social-religious environment, these birdhouses embodied the Islamic value of *merhamet* and the promotion of animal welfare. This social value was inculcated in the broader institution of waqfs (endowed foundations), which regularly included specific regulations concerning the welfare and maintenance of living creatures. Their deliberate placement on public and monumental buildings suggests that birdhouses were conceived not as incidental additions, but as meaningful components of the built environment. However, in the contemporary period, these elaborate micro-architectural units are not built in their traditional form, as changes in the social fabric and the development of contemporary construction methods and materials have resulted in the abandonment of this traditional form of architecture.

Birdhouses, which can be defined as "nests specially built on the walls of palaces, mansions, etc., or on the branches of large trees in their gardens to provide shelter and protection for birds" (Turkish Language Association Dictionary, 2022), according to Arseven (1984), were used to decorate the facades of houses as both a nest for birds and a miniature of the buildings (Arseven, 1984, p. 108). Birdhouses were also known as birdhouses/dovecotes (*kuşevi*), sparrow palaces (*serçe saray*), pigeon palaces (*güvercinsaray*), bird kiosks (*kuşköşkü*), and bird niches (*kuş takası*) (Hasol, 2020, p. 394; Urfalıoğlu, 2015). The typological variety and aesthetic sensitivity of birdhouses are reflected in the diversity of terms used to describe them. Located on the most visible and elevated parts of buildings, particularly along eaves and exterior walls, these structures provided shelter for birds such as sparrows, goldfinches, doves, pigeons, and swallows. Birdhouses were either integrated during the initial construction or added later to a wide range of buildings, including mosques, inns, baths, madrasahs, mausoleums, tombs, fountains, bridges, palaces, mansions, and churches.

The construction material of birdhouses in the Ottoman period was generally stone (marble, molded stone, etc.), although examples made of wood and reinforced concrete also exist today. These constructions vary between 10 cm and 40 cm according to the size of the birds (Göksal, 2021, p. 156). The cavities were formed by shaping cracked stones through crushing and combining them with adjacent stones. Over time, these cavities were transformed into kiosks and palaces with cantilevered pavilions and rising floors by adding balconies and eaves (Bektaş, 2004, p. 86). This transformation is analogous to more extensive stylistic evolutions observed within the domain of Ottoman architecture, notably during the eighteenth century.

In birdhouses, mosque, house, hollow/cavity, and kiosk-shaped are the main forms encountered. Other forms include balcony, alcove/oriel, iwan, cage, külliye-complex, masjid, sparrow palace, and viewing pavilion (Barışta, 2000, p. 251). The construction methods of birdhouses differ in terms of materials and wall thickness and were applied to masonry and stone walls through techniques such as carving, relief, seating, and facade cladding. Birdhouses are grouped differently by researchers according to their formal characteristics. Seyyide Göksal (2021) analyses them in three groups: Arched alcove-type (*kovuk*), carved (*oymalı*), and wall relief (Göksal, 2021, p. 135). Barışta (2000), on the other hand, analyses birdhouses in more detail in terms of facade arrangement, such as three-sided, rectangular facades with vertical or horizontal projections, pentagonal forms, round-lined overhangs, and arched-eyed compositions (Barışta, 2000, pp. 261–270). These classifications demonstrate that birdhouses offer a valuable lens through which architectural diversity and stylistic variation can be examined at the micro-level.

Birdhouses, one of the characteristic building types in Ottoman art, are also seen in Japanese culture. Apart from Istanbul, birdhouses can be found throughout Anatolia and Thrace, including Ankara, Edirne, Izmir, Bolu, Tokat, Amasya, Kayseri, Doğubeyazıt, Kastamonu, and Milas (Bektaş, 2004, p. 66). These examples date from the

Seljuk, Ottoman, and Republican periods, beginning in the 13th century. Until the late Ottoman period, arched alcove-type examples predominated, whereas more rectangular facade and pavilion-shaped examples emerged in the eighteenth and nineteenth centuries. This section's samples come from a variety of historical eras and cultural settings. These variations reflect the influence of successive architectural phases-classical, baroque, and neoclassical-on birdhouse design.

European travellers like Lady Mary Wortley Montagu and Gérard de Nerval highlighted birdhouses as materializations of the Islamic concept of *merhamet*. This cultural devotion was formally institutionalized through the framework of waqfs which frequently included specific provisions for the protection and welfare of living creatures. Consequently, these structures should be analysed as architectural manifestations of a religiously mandated philanthropic culture, where animal shelter became a visible component of sultanic and elite patronage. While the foundational works of Celal Esat Arseven (1984) and subsequent scholars provide rich descriptive inventories, the analytical link between birdhouses and broader eighteenth-century architectural transformations remains insufficiently explored.

Within this broader architectural, cultural, and historical framework, the present study focuses on the birdhouses of the Üsküdar Ayazma Mosque (1760–1761), one of the most significant monuments of the early Ottoman Baroque period. The article's objective is to evaluate the micro-architectural elements of the birdhouses integrated into the mosque's facades, courtyard gates, and hünkâr pavilion as indicators of stylistic transformation and cultural intention. This undertaking entails a thorough examination of the formal characteristics, spatial arrangement, and typological diversity observed in the birdhouses. The study repositions birdhouses as significant architectural manifestations, reflecting the coexistence of classical Ottoman traditions and emerging Baroque aesthetics in eighteenth-century Istanbul.

Architectural Characteristics of Birdhouses

Birdhouse samples can be seen in a wide geography, from Japan to India, from Pakistan to Anatolia and the Balkans. In addition to this situation, which shows that birdhouses are widespread in a wide geography, there have been cultural interactions in these geographies. Instead of these examples being considered as a unitary architectural ensemble, this section uses a historical narrative tracing the formal and stylistic evolution of birdhouses, beginning in their functional designs in the early period up until the more complex designs in the eighteenth century. Birdhouses built in the Ottoman period and Mongolian culture also have similarities. For example, birdhouses in places such as Lahore Fortress, Taj Mahal, Ahmet Yesevi Tomb and Arslan Baba Tomb reflect this similarity (Barışta, 2000, p. 55; Göksal, 2021, p. 19). In addition, research[1] has shown that late Ottoman buildings have 'eastern' influences.

There are many birdhouses made with various materials and techniques in and around Anatolia, from Ottoman and Seljuk buildings. It is possible to see the most beautiful birdhouse examples in Istanbul, the last capital of the Ottoman Empire. In addition, according to the existing studies, the most birdhouse examples are on buildings in Istanbul (Göksal, 2021, p. 135) (Figure 1). The earliest birdhouse in Istanbul is on the Bali Pasha Mosque (1504) built by Mimar Sinan in the early 16th century (Tanman, 2010, p. 189). Similarly,

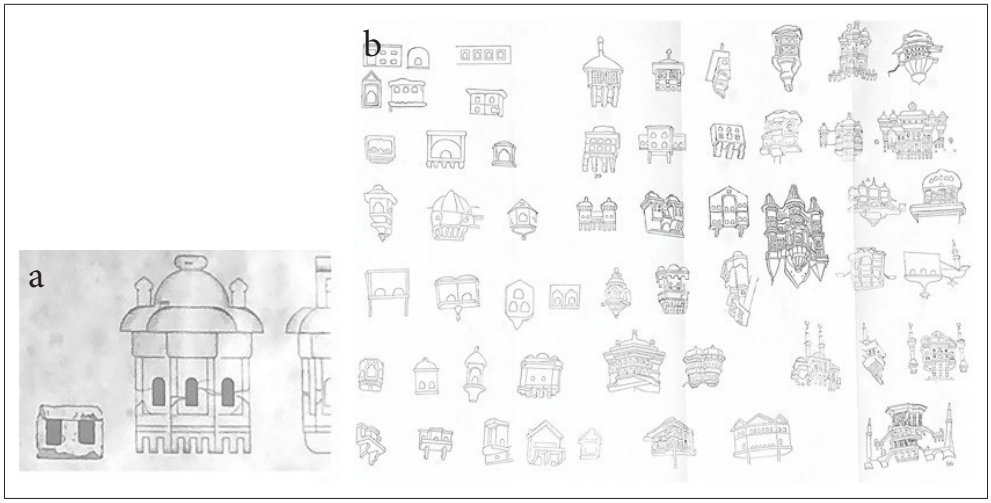


Figure 1. Drawing of the kiosk-shaped birdhouse on the facade of Bali Pasha Mosque (Drawing **a:** Tanman, 2010, p.189) and schematic drawings of some of the forms observed in Istanbul birdhouses (Drawing **b:** Pınar Dinçer; Barışta, 2000, p. 427).

1 Şahin, 2009; Göksal, 2021.

arched alcove-type birdhouses can be seen in the buildings of 16th century Sinan complexes such as Şehzade (1543), Süleymaniye (1554-59), Zâl Mahmud Paşa (1574) and Şemsi Paşa (1580) (Barışta, 2000, p. 105, 106, 122, 207, 232). Common in the 16th century, alcove shaped birdhouses evolved into new forms with carved and rectangular facades/kiosk-shapeds in the 17th century, as seen in the Yeni Valide Mosque. As Istanbul's growth outside the old city walls accelerated, birdhouses continued to spread in districts such as Üsküdar, Eyüp, and Beyoğlu. There are distinctive examples of birdhouses in eighteenth-century Istanbul. These examples are discussed in the following section through a comparative analysis with the birdhouses of the Üsküdar Ayazma Mosque, which constitutes the main subject of this article.

The birdhouses on the corner ledge of an apartment building on Sıraselviler Street in Beyoğlu exemplify the late 19th and early 20th-century architecture (Neftçi, 2010, p. 139). The birdhouses harmonizes with the architecture of the cylindrical ledge on which they are located and face three different directions. The wooden birdhouses face in three different directions and have three nest entrances with round arches on a semi-circular platform supported by four buttresses (Figure 2, left and middle sides-a). The Rahmi Koç Museum features a stone birdhouse that was added in the 20th century. The birdhouse has a pavilion shape and is supported by three buttresses. It features a rectangular platform, a prismatic frame with arched nests, and a conical roof (Figure 2, right side-b).

From the early days of the Republic to the present day, examples of birdhouses have been built in Istanbul, albeit rarely. An example of this is the stylized two-storey, rectangular facade, wide eaves, and buttress-supported birdhouse seen on a building on Bağdat Street in Kadıköy (Figure 3). A two-storey birdhouse with crenellations on the parapet is located at the intersection of Esnaf Loncası Sokağı and Yatağan Hamamı in Ayvansaray. It was built in the late 19th and early 20th centuries, representing the Republican period in Istanbul.

Birdhouses can be found in many cities in Anatolia such as Amasya, Kayseri, Nevşehir, Kastamonu, Safranbolu, Bolu, Isparta, Manisa and İzmir[2] in addition to the examples observed in İstanbul. For instance, in İzmir-Çeşme, there is a single-entrance birdhouse with a facade in the shape of an ancient Greek temple on the facade of a house (Figure 4).

As an example of birdhouses from the Republican era, a modern birdhouse built during Mehmet Çalık›s first term as mayor of Kayseri (1963-1968) can be shown (Urfalıoğlu & Baturayoğlu Yöney, 2013). The building is located in a public green area between Kayseri Provincial Public Library and Seyit Burhanettin Tomb. The birdhouse, located on a platform placed on a reinforced concrete base, consists of three prismatic intertwined masses. There are pointed arched openings of different sizes on the side facades of the masses (Figure 5).

Theoretical Framework: Ottoman Baroque and Global Context

During the eighteenth century, the Ottoman Empire's attitude towards Western states had begun to change, and its desire to benefit from Western technology had been growing. The concept of opening up to the West also manifested itself in the art field, and new branches and styles of art entered Ottoman culture (Cezar, 2002, p. 292). In the early eighteenth century, the Tulip Period marked the beginning of eastern and western influences in Ottoman architecture. As the century passed, Western influences became more dominant in art and architecture. The emergence of the Ottoman Baroque, influenced by the West during this period, is a significant example (Çelik, 2019). From the late eighteenth century onwards, the use of baroque was also extended to the structural elements of the buildings and

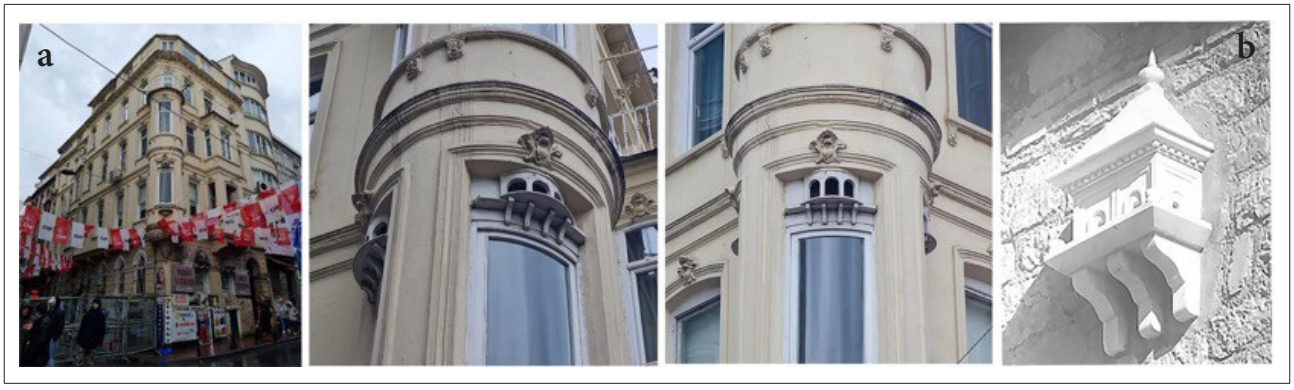


Figure 2. An example of a 19th-20th century birdhouse from an apartment building on Sıraselviler Street in Beyoğlu, Istanbul (Photo **a:** Elif Merve Gürer), and a birdhouse added to the Rahmi Koç Museum in the 20th century (Photo **b:** Neftçi, 2010, p. 157).

[2] Nur Urfalıoğlu's 2015 paper 'Birdhouse Tradition Examples from Kayseri and Isparta' provides a detailed examination of examples in Anatolia.

Figure 3. An example of a stylized birdhouse from a building on Bağdat Street in Kadıköy, Istanbul (Photo **a:** (Url-1, 2017)), **b:** (Photo b: Sibel Sürmeli)).

Figure 4. Detail of the birdhouse on the facade of the house in Çeşme, Izmir (Urfalıoğlu, 2015).

generally dominated the facade. The baroque style is characterized by rounded lines, curved, concave, and convex surfaces, S and C curves, sea shells, intricate surface ornamentation (Çelik, 2019, p. 36), composite and Corinthian capitals, long curved eaves, pairs of columns, emphasizing the load-bearing elements on the facades, and profiled mouldings (Bakır, 2003, p. 81). Some of the most important examples of Ottoman baroque architecture from the eighteenth century include the Nuruosmaniye Mosque (1755) and the Laleli Mosque (1763) (Çelik, 2019, p. 36).

However**,** this transformation extended beyond a superficial adoption of Western decorative motifs. The stylistic transformation in eighteenth-century Ottoman architecture was not merely a superficial Westernization but rather a process of "opening up" (*décloisonnement*) in which the patronage structure and aesthetic boundaries expanded (Hamadeh, 2010). During this period, architecture moved away from classical norms and acquired an identity focused on innovation, visual spectacle, and sensory pleasure (Hamadeh, 2010). On the other hand, Ünver Rüstem claims that "Ottoman Baroque" defines not only a taste but also a means of redefining the position of both the Ottomans and the sultanate on a global scale through a "globally readable" aesthetic (Rüstem, 2019).

The typology of birdhousing has been recorded in a wide geographical range of countries, including Japan, India, and the Balkans. As regards the Ottoman context, these build-

Figure 5. Example of a modern birdhouse in Kayseri, 1963-68 (Author, 2023-2024; Urfalıoğlu, 2015).

ings symbolize the Islamic concept of *merhamet*, a cultural value that is central in the travelogues of Lady Mary Wortley Montagu and Gérard de Nerval. Unlike previous descriptive inventories (e.g., Arseven, Barışta, Bektaş), which often overlook the institutional framework of waqfs, this study provides an analytical evaluation of the Ayazma Mosque's birdhouses as micro-architectural manifestations of the eighteenth-century Ottoman Baroque transformation. Consequently, this research fills a critical gap by positioning these 'miniature palaces' not merely as ornaments, but as indicators of global legibility and sultanic visibility.

In this context, the birdhouses at Ayazma Mosque exemplify the Ottoman palace's sophisticated vision of blending local heritage with global trends by presenting a "hybrid" synthesis of traditional forms and Western models. The birdhouses of Ayazma Mosque should be analysed as manifestations of this shift towards global legibility and sultanic visibility (Rüstem, 2013; Hamadeh, 2008).

Before proceeding to the case study analysis, Table 1 presents a comparative typological framework distinguishing the formal, structural, and cultural characteristics of the two principal birdhouse types identified across eighteenth-century Istanbul. While the traditional alcove-type (*kovuk*) remained the predominant form across all periods, the emergence of sophisticated kiosk-shaped examples reflects the broader stylistic transformation and Baroque 'opening up' of Ottoman monumental architecture. The Ayazma Mosque stands as the most complete expression of this typological duality, integrating both traditional and innovative forms within a single monumental complex (Table 1).

Birdhouses in Eighteenth-Century Istanbul

Since Ottoman architecture was predominantly centred in the capital, it is possible to see the changes and ruptures in the architecture of Istanbul in particular. In the early eighteenth century, construction activities began to revive with the widespread use of wooden mansions and kiosks, and instead of works of charity and endowment, there was more activity in residential civil buildings. This mobility, which emerged with the opening of new settlement areas, was seen in the inland part of the Golden Horn, the lower part of the Kağıthane stream, and the Bosphorus coasts such as Üsküdar (Figure 6). It can be said that this mobility in Istanbul architecture is also reflected in the birdhouses.

Built in the eighteenth century, birdhouses can be seen on a variety of buildings (Figure 7) such as Darphane-i Amire (1727), Taksim Maksem (1732), Fatih Mosque Library (1742), Seyyid Hasan Pasha Madrasah (1745), Atıf Efendi Library (1742), Laleli Mustafa III and Selim III Tombs (1763) as well as Üsküdar Yeni Valide Mosque (1713), Üsküdar Ayazma Mosque (1761). Selim Tomb (1763), Büyük Yeni Han (1764)[3] (Figure 7). They also appear on the facades of monumental mosques such as Üsküdar Yeni Valide Mosque (1713), Üsküdar Ayazma Mosque (1760), and Üsküdar Selimiye Mosque (1789-1801) (Figure 8) (Table 2).

When eighteenth-century Istanbul buildings are analysed, birdhouses can be seen on building types with various functions such as mosques, madrasahs, libraries, primary schools, imarets, mints, maksem (place of distribution or

Table 1. Comparative typology of Ottoman classical and baroque birdhouses

Feature	Classical Period (Alcove-Type / Kovuk)	Baroque Period (Kiosk-Shaped/Köşk-Saray)
Form	Arched alcove, hollow cavity	Multi-story rectangular facade, pavilion
Stylistic Period	16th–17th century (predominant)	18th–19th century (predominant)
Structural Character	Integrated into wall surface, flush	Cantilevered, projecting from facade
Roof Type	Simple arch cover	Domed, conical, or tiered roof
Decorative Elements	Minimal ornamentation, *penci* arches	Elaborate ornamentation, S/C curves, seashell motifs
Number of Floors	Single level	Multi-story, with balconies and cantilevers
Supports	Wall-integrated	Buttresses, corbels
Nest Configuration	Single or double cavity	Multiple nesting spaces, varied openings
Architectural Analogy	Modest niche	Miniature palace, maharajah's pavilion
Representative Examples	Şehzade Mosque (1543), Süleymaniye Mosque (1554–59)	Ayazma Mosque (1760), Eyüp Mosque (1798–1800)
Patronage Context	Waqf-based charitable tradition	Sultanic visibility, global legibility
Cultural Reference	Islamic *merhamet*	Eastern-Western hybrid synthesis

[3] It is stated that this birdhouse on Büyük Yeni Han is the only birdhouse with an inscription in Istanbul. The inscription reads "Mashallah year 1177 "(praise be! the year Hijri 1177-(Gregorian 1764)) (Barışta, 2000, p. 247).

Figure 6. Istanbul Üsküdar Şemsipaşa, 1891 (eskiistanbul.net, 2025).

Figure 7. Darphane-i Amire **(a)** (Göksal, 2021, p. 128), Seyyid Hasan Pasha Madrasa **(b)** (Kültür Envanteri, 2023), Taksim Maksem **(c)**, Laleli Mustafa III and Selim III Tomb **(d)** and birdhouses on Büyük Yeni Han **(e)** (Author, 2023-2024).

sharing out of the city water), tombs, inns, and churches. From the early eighteenth century to the end of the eighteenth century, these buildings were built by palace patrons/banis who were members of the dynasty, such as the

Figure 8. Birdhouses on Üsküdar Yeni Valide Mosque **(a)**, Üsküdar Ayazma Mosque **(b)** (Author, 2023-2024), and Üsküdar Selimiye Mosque **(c)** (Kültür Envanteri, 2023).

Table 2. Analysis of birdhouses on buildings constructed in eighteenth-century Istanbul

No	Building name	Building construction date	Bani (Patron/ founder)-restorer	Birdhouse shape	The facade on which the birdhouse is located	The position of the birdhouse on the facade
1	Çorlulu Ali Paşa Mosque	1707-09	Çorlulu Ali Pasha	Alcove-type	North-east	Under the eaves
2	Gülnüş Emetullah (Yeni) Valide Mosque Primary School	1711	Emetullah Rabia Gülnüş Sultan	Alcove-type	North-west	Under the eaves
3	Gülnüş Emetullah (Yeni) Valide Mosque	1711	Emetullah Rabia Gülnüş Sultan	Mosque, alcove-type	East-West	Under the eaves
4	Damat Ibrahim Pasha Masjid	1720	Damat Ibrahim Pasha	Alcove-type	North-west	Under the eaves
5	Ahmediye Mosque	1721	Shipyard Commander Ahmed Agha	Alcove-type	East	Window tops
6	Topkapi Palace Mint Building	1727	Ahmet III	Mansion, Kiosk-shaped	North	Under the eaves
7	Hagios Demetrios Church	1730	-	Alcove-type-house	South	Under the eaves
8	Çuhacı Han	1730	Damat Ibrahim Pasha	Alcove-type	South-west	Window tops, under the eaves
9	Taksim Maxim	1730-31	Ahmet III-Mahmut I	Kiosk-shaped	South	Window tops, under the eaves
10	Mahmud Sıbyan Mektebi	1740	Mahmut I	Alcove-type	North-south-east	Under the eaves
11	Atif Efendi Library	1741	Mahmut I	Alcove-type	East	Window tops and walls at different levels
12	Seyyid Hasan Pasha Madrasa	1745	Grand Vizier Seyyid Hasan Pasha	Alcove-type, mosque	South-west-north	Under the eaves
Table 2. (continued)						
13	Nuruosmaniye Mosque and Hünkâr Pavilion	1755	Osman III	Alcove-type	East	Window-side-weight domes
14	Nuruosmaniye Complex Madrasah	1755	Osman III	Alcove-type	East	Courtyard doors, *hünkâr mahfili,* under the floor moldings
15	Üsküdar Ayazma Mosque	1760	Mustafa III	The Seyir Kiosk-shaped - glazed palace - alcove-type	South-east-west	Floor molding and window tops
16	Çakmakçılar/III. Mustafa Mosque	1760	Mustafa III	Alcove-type	North	Under the eaves
17	Laleli Complex Mustafa III and Selim III Mausoleum	1760-64	Mustafa III	Alcove-type, masjid, Sparrow's Palace	South	Under the eaves
18	Laleli Complex Taşhan	1760-64	Mustafa III	Alcove-type	West-south	In the middle
19	Laleli Complex Imaret	1760-64	Mustafa III	Alcove-type	West-south	Floor wiping-under console

Table 2. Continued

No	Building name	Building construction date	Bani (Patron/ founder)-restorer	Birdhouse shape	The facade on which the birdhouse is located	The position of the birdhouse on the facade
20	Little New Inn	1761	Mustafa III	Alcove-type	East-north	Under eaves, window tops
21	Grand New Inn	1764	Mustafa III	Kiosk-shaped, alcove-type	East-north	Under the eaves
22	Ragıp Pasha Library Primary School	1763	Ragip Pasha	Alcove-type	West	Under the eaves
23	Fatih Mosque Mahmut I Library	1766	Mustafa III	Alcove-type	South	Under the eaves and in the middle parts
24	Fatih Mosque	1766	Mustafa III	Alcove-type	South-east	Door tops
25	Recai Mehmet Efendi Primary School	1775	Recai Mehmet Efendi	Alcove-type	North-east	Window tops
26	Sebsefa Primary School	1787	Fatma Şepsefa Hatun	Alcove-type	West	Under the eaves
27	Üsküdar Selimiye Mosque	1789-1801	Selim III	Mansion, Kiosk-shaped	South-East	Under the eaves
28	Mihrişah Vâlide Sultan Complex Imaret	1796	Mihrişah Vâlide Sultan	House-alcove-type	East	Courtyard gates
29	Eyüp Mosque	1798-1800	Selim III	Kiosk-shaped, Sparrow's Palace	South-east, west	Under the eaves
30	Şah Sultan Primary School	1800	Şah Sultan	House	East	Under the eaves

padishah and the sultan, or by state officials such as the grand vizier, vizier, and pasha, or by banis from the public. The forms of the buildings can be arched alcove-type, shelter, house, mosque, mansion, kiosk, palace (glazed palace, sparrow palace). Birdhouses are generally observed under the eaves of the east-south-west-facing, sunny, warm, and windless exterior facades of the buildings, under the eaves, tops of windows and doors, under the floor moldings, etc. in the high parts where people cannot reach them (Table 2).

METHOD

This study adopted a qualitative research methodology grounded in systematic architectural documentation and comparative typological analysis. The primary data were drawn from twenty extant birdhouses documented through direct observation and high-resolution photography conducted between 2022 and 2024, encompassing the exterior facades, courtyard gates, and hünkâr pavilion of the mosque. This original field survey forms the empirical core of the study. It is treated as analytically distinct from the broader historical and contextual information drawn from secondary sources.

To ensure spatial accuracy, the field documentation was cross-referenced with official restoration plans and archival drawings held by the Istanbul Foundations 2nd Regional Office (İstanbul Vakıflar II. Bölge Müdürlüğü). The birdhouses were subsequently classified into two typological categories — alcove-type (*kovuk*) and kiosk-shaped (*köşk-saray*) — following the established classification frameworks developed by Barışta (2000) and Göksal (2021). Each example was then analysed in terms of its structural supports, roof configuration, and surface ornamentation.

A comparative analysis was further conducted with selected contemporaneous Istanbul buildings to identify recurring patterns in spatial distribution and facade placement strategies. It should be noted that the scope of the analysis is confined to surviving exterior birdhouses, with a focus on formal characteristics and cultural significance. Structural testing and interior spatial analysis fall outside the boundaries of this study.

CASE STUDY

Üsküdar Ayazma Mosque and Its Birdhouses

The Üsküdar Ayazma Mosque is situated on the ridges of Üsküdar Salacak, providing a panoramic view of the Bosphorus and the historical peninsula (Figure 9). It was built by Mustafa III in 1760–61 on behalf of his mother, Mihrişah Emine Sultan, and his brother, Şehzade Süleyman. The building master was Ishak Ağa (Eyice, 1991, p. 230-231). Over time, some of the buildings in the complex, including

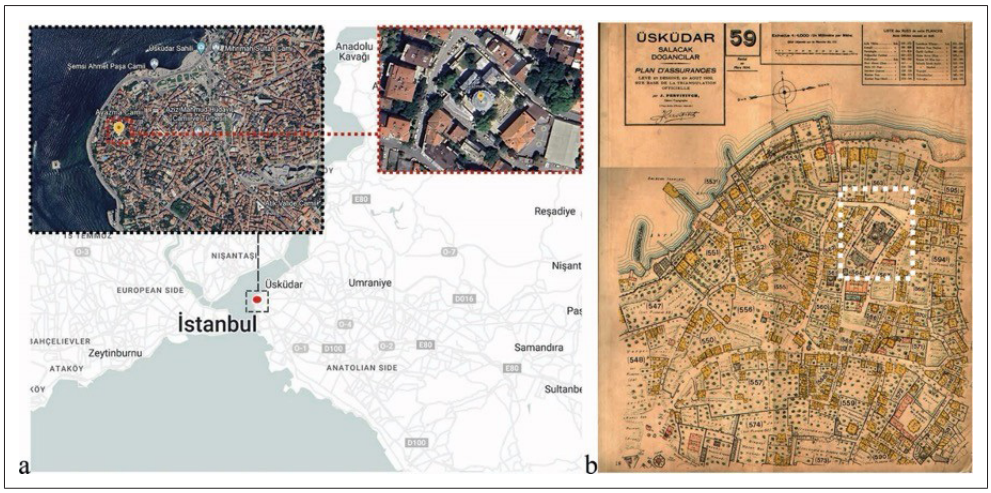


Figure 9. Location of Ayazma Mosque in Istanbul (Google Earth, 2023; Snazzymaps.com, 2023) and Ayazma Mosque on Pervititch map (istanbulium.net, 2019).

a primary school, a hammam, an inn, many shops, and a muwakkithane, became ruined. Only the mosque and the fountain have survived to the present day. The Ayazma Mosque was built during a period when foreign influences such as Baroque and Rococo were widespread in Ottoman architecture. The Nuruosmaniye Mosque stands out due to its dome tambour, large dimensions, and elevated location, making it visible from afar. These features clearly reflect the influence of the Baroque style on the mosque's architecture (Figure 10). Ayda Arel evaluates the architecture of the eighteenth-century Mustafa III period as a period in which classical Ottoman principles were observed (Arel, 1975). Semra Ögel highlights this reign (1757–1774) as a defining phase of creative transformation in eighteenth-century Ottoman architecture (Ögel, 2010). In this context, it can be said that the architecture of the Ayazma Mosque and the birdhouses on it reflect the characteristics of both the classical period and the baroque period.

There are a total of 20 birdhouses on the facades, courtyard gates, and *hünkâr mahfili* of the Ayazma Mosque, 10 of which are in the form of rectangular facades or kiosk-shapes and 10 of which are in the form of arched alcove-type. The restoration project plan in Figure 11 marks the locations of the birdhouses, which are found on the southeast (3 birdhouses) and southwest (1 birdhouse) facades (Figure 12), the courtyard gates (5 on the east portal and 6 on the west portal) (Figure 13), and the *hünkâr mahfili* (5 birdhouses) (Figure 14).

Ayazma Mosque Birdhouse Architectural Features:
Kiosk- and Pavilion-Shaped Birdhouses (Nos. 1-10)
There are ten bird refuges belonging to this type, which can be considered the most ornate and architecturally significant among all the bird refuges in the complex. These bird

Figure 10. Ayazma Mosque after the 2022 restoration (Author, 2023-2024).

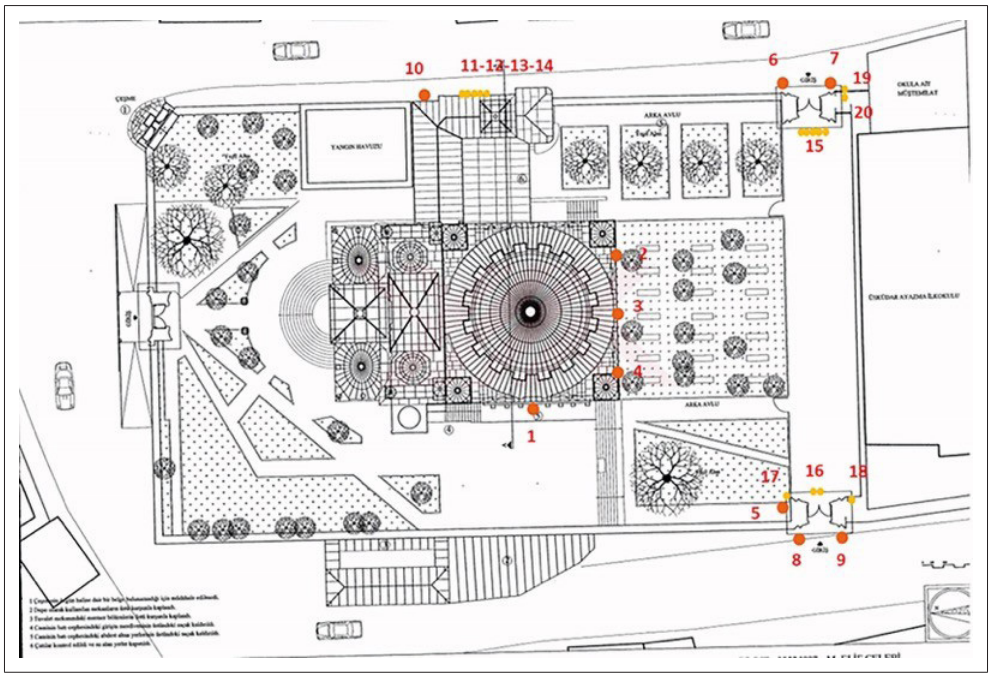


Figure 11. Birdhouse locations on the Ayazma Mosque restoration project plan (Çelebi, 2004, p. 222) (the ones in red are the locations of the birdhouses with rectangular facades/kiosk-shaped, and the ones in yellow are the locations of the birdhouses in the form of arched alcove-type).

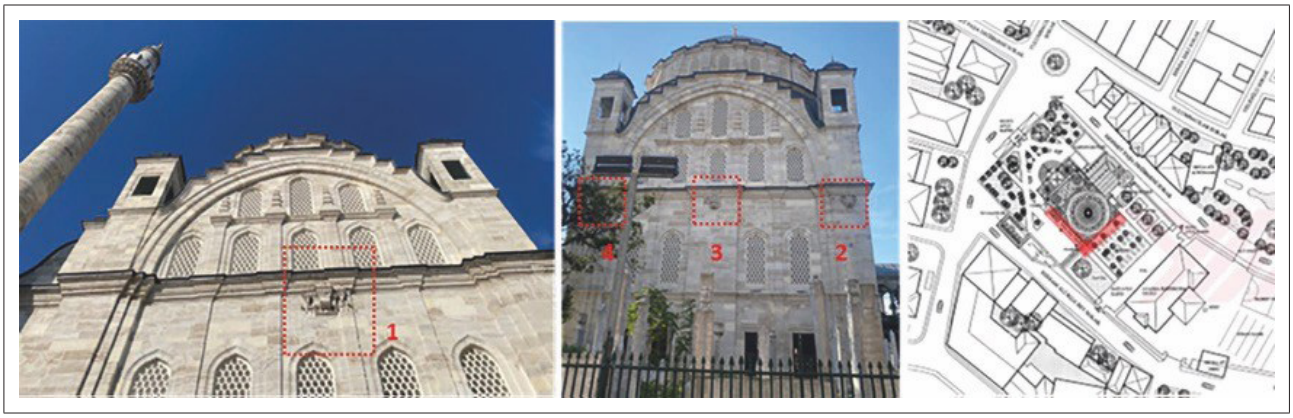


Figure 12. Birdhouses on the southwest and southeast facades of Ayazma Mosque (Çelebi, 2004, p. 222; Author, 2023-2024).

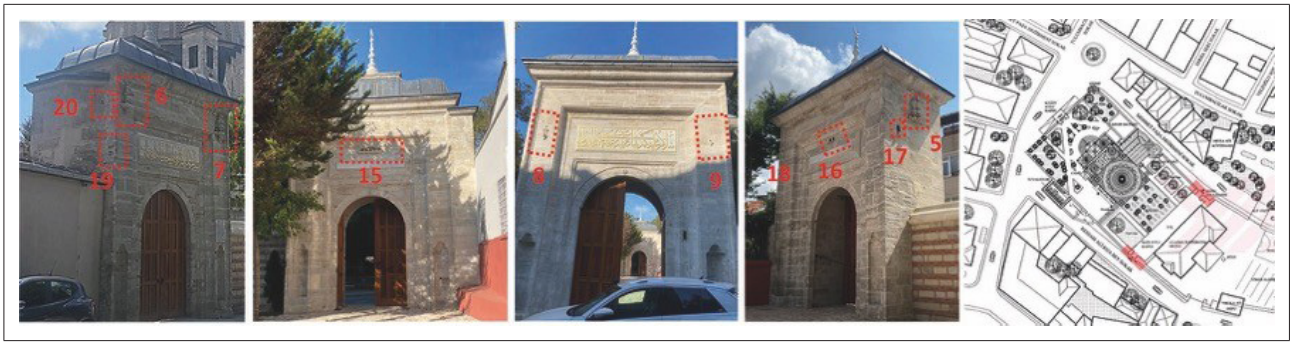


Figure 13. Birdhouses on the east and west courtyard gates of Ayazma Mosque (Çelebi, 2004, p. 222; Author, 2023-2024).

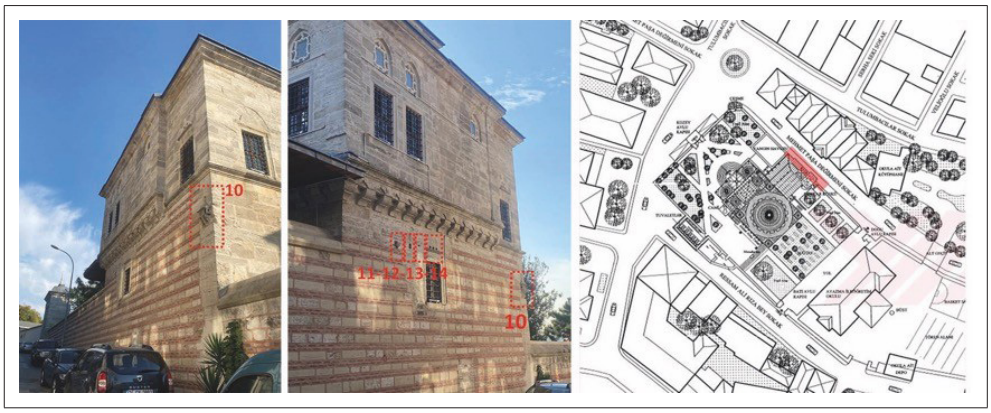


Figure 14. Birdhouses on the *hünkâr mahfili* of Ayazma Mosque (Çelebi, 2004, p 222; Author, 2023-2024).

refuges are generally multi-storied with buttresses or cantilevers and balconies, etc. Bird refuges 1, 3, 5, and 10 can be considered the most representative examples of this type.

Birdhouse No. 1, located on the southwest facade, has a palace-like configuration with various floor sizes and thus a dynamic facade with buttresses and cantilevers (Neftçi, 2010, p. 18). Birdhouse No. 3 on the southeastern facade has a two-storied configuration with a prominent cantilever and a vaulted cover on the upper floor, emphasizing verticality and depth (Neftçi, 2010, p. 22).

Birdhouse No. 5, which is situated at the gate of the western courtyard, is one of the most advanced examples, which is often referred to as a "glazed palace." The two-story structure, central oriel, and arch-shaped alcove-style nesting on the facades represent high architectural integration. The aesthetic consistency between the roof styles of the birdhouse and the courtyard gate indicates that the design was carried out in an integrated manner. Birdhouse No. 10, situated close to the *hünkâr mahfili,* features lattice-covered square windows with diamond motifs and vaulted covers.

Other birdhouses in this group, i.e., Nos. 2, 4, 6-9, feature similar design elements to those mentioned above. Therefore, they will be discussed collectively.

Hollow and Alcove-Shaped Birdhouses (Nos. 11-20).

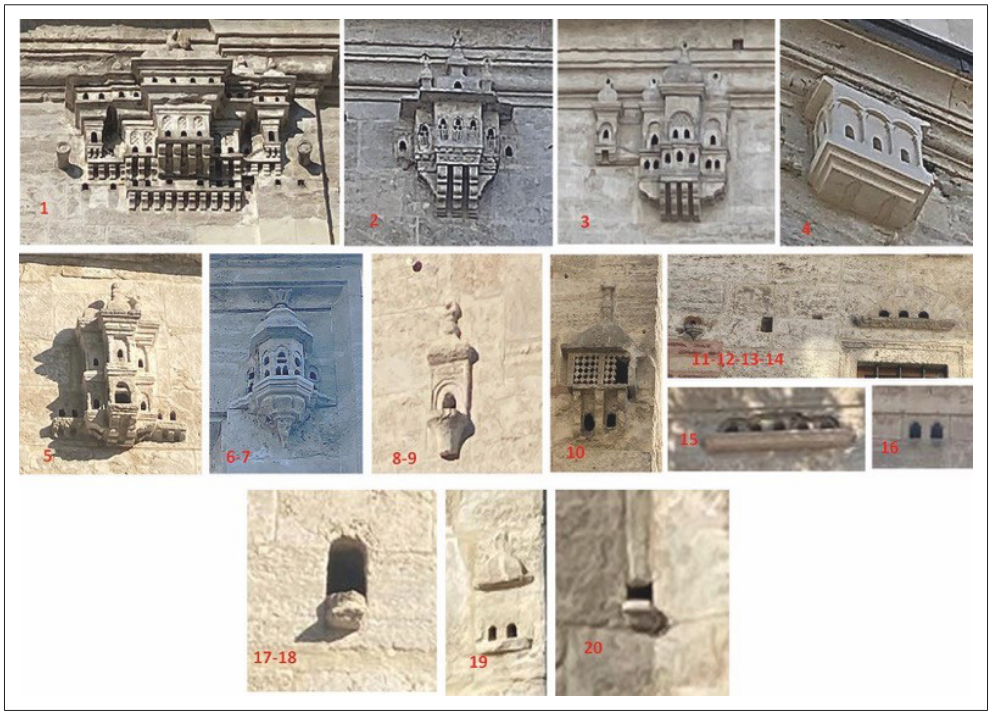


Figure 15. Details of the birdhouses on the facades, the courtyard doors and the *hünkâr mahfili* of Ayazma Mosque (Author, 2023-2024).

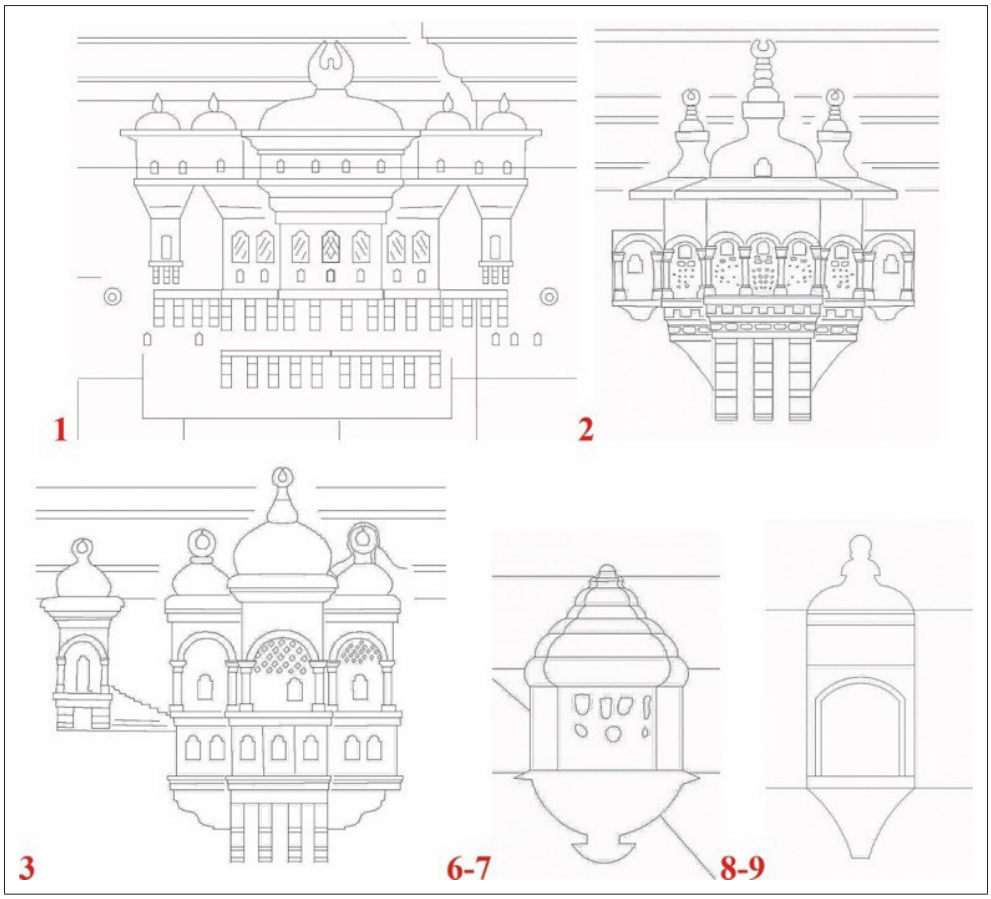


Figure 16. Scale-free restoration project drawings of the birdhouses numbered 1, 2, 3, 6, 7, 8 and 9 on the facades and courtyard gates of Ayazma Mosque (Istanbul Foundations 2nd Regional Office (İstanbul Vakıflar II. Bölge Müdürlüğü), 2022).

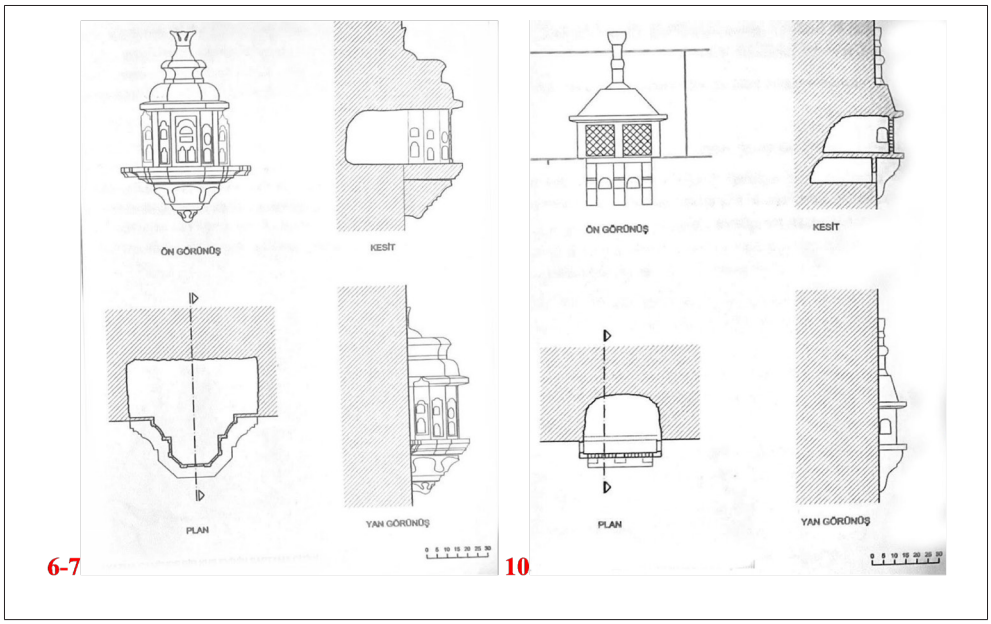


Figure 17. Survey drawings of the birdhouses numbered 6, 7 and 10 on the hünkâr mahfili and east portal of Ayazma Mosque (Bektaş, 2004).

The remaining ten birdhouses feature hollow or alcove-shaped elements integrated into existing architectural elements. These elements are mostly located in the existing architectural elements like the window arches, courtyard gates, and facades.

Birdhouses Nos. 14 and 15 belong to this group. Birdhouse No. 14 features multiple arch-shaped alcove-style nesting spaces arranged side by side. Similarly, Birdhouse No. 15 features multiple arch-shaped alcove-style nesting spaces arranged side by side. Birdhouse No. 16 is an exceptional example featuring *penci* arches, which is characteristic of classical Ottoman architecture.

Birdhouses Nos. 11-13 and 17-20 feature similar design elements to Birdhouse Nos. 14-15. These feature one or two nesting spaces with minimal balcony.

RESULTS

Table 2 lists 30 buildings in Istanbul, the capital of the Ottoman Empire in the eighteenth century, that were built by the palace or commoners and were found to have birdhouses. These buildings have various functions, such as mosques, madrasahs, libraries, primary schools, imarets, mint buildings, maksems, tombs, inns, churches, shops, *hünkâr* pavilions, etc. Among these buildings, 10 mosques, 6 primary schools, 4 inns, 2 libraries, 2 madrasahs, 2 imarets, 1 tomb, 1 church, 1 mint building, and 1 maksem have at least one birdhouse. Among the birdhouses in the forms of alcove, house, mosque, masjid, kiosk, mansion, and palace (*sırçasaray*) on the buildings given in the table, arched alcove-types are seen in almost all of them (in 24 buildings), while those in the form of kiosk-shaped are seen less frequently (in 6 buildings), and mosques, palaces, and other forms are rarely seen. Among these forms, especially arched alcove-types were the most widely used birdhouse form in Ottoman buildings from the 16th century to the 20th century. In Table 2, the fact that eighteenth-century buildings have the greatest number of arched alcove-types (24 buildings) supports this argument. The higher number of arched alcove-type birdhouses among the surviving birdhouses may be related to the fact that these types are more protected against external influences compared to other forms, such as pavilions protruding from the surface on which they are located. In the buildings examined, birdhouses are generally seen on the east (in 16 buildings), south (in 13 buildings), and west (in 11 buildings) facades, and less frequently on the north (in 10 buildings) facades. Birdhouses are located mostly on the high parts of the facade, such as under the eaves-storey molding and on top of the window door (see Table 2). This suggests that climatic and functional factors influenced the placement of birdhouses on eighteenth-century Istanbul buildings.

To evaluate the eighteenth-century birdhouses of the Ayazma Mosque among the mosques of the eighteenth century, it is necessary to examine the birdhouses in the mosques built at that time in more detail. Table 3 lists the 22 major mosques in Istanbul that were built or renovated during the eighteenth century by the sultan, female sultan, vizier, pasha, and commoners. According to the table, 10 of the mosques have birdhouses, while the remaining 12 do not. The following mosques have birdhouses shaped like arched alcove-types: Çorlulu Ali Pasha Mosque, Damat Ibrahim Pasha Mosque, Ahmediye Mosque, Çakmakçılar Mustafa III Mosque, Üsküdar Yeni Valide Mosque, Nuruosmaniye Mosque, Ayazma Mosque, and Fatih Mosque. The Ayazma Mosque, Üsküdar Selimiye Mosque, Eyüp Mosque, and Yeni Valide Mosque all have birdhouses that are shaped like kiosks in the eighteenth century architectural style; the Yeni Valide Mosque has birdhouses that are shaped like mosques and palaces; the Ayazma Mosque has birdhouses in the form of sparrow palace (*sırçasaray)*. The mosques built in the eighteenth century, including Hekimoğlu Ali Paşa, Büyük İhsaniye, Beşir Ağa, Sultan Mustafa III İskele, Laleli, Paşabahçe, Paşalimanı, Zeynep Sultan, Beylerbeyi, Emirgan, Şebsefa Hatun, and Teşvikiye, do not have birdhouses. It is observed that the birdhouses are located in the warmer parts of the mosques, which are situated to the east, south, and west, rather than in the relatively cold north-facing parts. The birdhouses were generally located at high points, such as under the eaves (14 buildings), on the tops of windows (3 buildings), on the floors (2 buildings), and in the middle of the facades (Table 3). Ayazma Mosque stands out among these buildings in terms of the variety and quantity of its birdhouses (Tables 3 and 4). This exceptional concentration is indicative of the deliberate patronage vision of Sultan Mustafa III, for whom the mosque served as a personal memorial. The architectural context of the mosque demanded a more intricate and symbolically significant integration of birdhouse forms than was customary for contemporary foundations. The birdhouses on Ayazma Mosque are classified in terms of variety in Tables 5 and 6 and Figure 18.

Some researchers have made comparisons between the eighteenth- and nineteenth- centuries Ottoman buildings, including the Üsküdar Ayazma Mosque, in terms of their stylistic features and stonework, mentioning their similarities to the Iranian (Ajam), Indian palaces, and mansions of the period (Göksal, 2021, p. 157; Şahin, 2009, p. 234). In eighteenth-century Ottoman architecture, the admiration for the "East" is also reflected in the architecture of birdhouses on the facades of buildings. In the eighteenth century, the birdhouses of which the most magnificent examples were given appeared as if they were small-scale Indian palaces or maharajah's pavilions designed for birds. It can be said that the birdhouses on the walls of Üsküdar Ayazma Mosque have many similarities with "Eastern" palaces such as the Udaipur Palace in India (Şahin, 2009, p. 234) (Figure 19). The Ayazma birdhouses, with their Eastern and Western references, have been shown to confirm their status as hybrid micro-architectural expressions of the broader Ottoman Baroque trans-

Table 3. Analysis of the eighteenth-century birdhouses in Istanbul mosques

No	Mosque name	Building construction date	Bani (Patron/ founder)- restorer	Birdhouse shape	The facade on which the birdhouse is located	The position of the birdhouse on the facade
1	Çorlulu Ali Pasha Mosque	1707-09	Çorlulu Ali Pasha	Alcove-type	North-East	Under the eaves
2	Damat Ibrahim Pasha Mosque	1720	Damat İbrahim Pasha	Alcove-type	North-west	Under the eaves
3	Gülnüş Emetullah (Yeni) Valide Mosque	1708-10	Emetullah Rabia Gülnüş Sultan	Alcove-type, Mosque	East-West	Under the eaves and in the middle parts
4	Ahmediye Mosque	1721	Tersane Emini Ahmed Ağa	Alcove-type	East	Window tops
5	Hekimoglu Ali Pasha Mosque	1735	Hekimoğlu Ali Pasha	-	-	-
6	Beşir Aga Mosque	1745	Haci Bashir Aga	-	-	-
7	Grand Ihsaniye Mosque	1755	Osman III	-	-	-
8	Nuruosmaniye Mosque and Hünkâr Pavilion	1748-55	Osman III	Alcove-type	East-West-North-South	Window sides - weight domes
9	Çakmakçılar/III. Mustafa Mosque	1760	Mustafa III	Alcove-type	North	Floor molding and window tops
10	Üsküdar Ayazma Mosque	1760	Mustafa III	Alcove type, Seyir Kiosk- Glazed Palace,	South- East-West	Under the storey molding, courtyard doors, the hünkâr pavilion
11	Sultan Mustafa III Iskele Mosque	1760	Mustafa III	-	-	-
12	Laleli Mosque	1763	Mustafa III	-	-	-
13	Paşabahçe Mosque	1763	Mustafa III	-	-	-
14	Fatih Mosque	1766	Mustafa III	Alcove-type	South- East	Under eaves and middle parts
15	Paşalimanı Mosque	1766	Mustafa III	-	-	-
16	Zeynep Sultan Mosque	1769	Zeynep Sultan	-	-	-
17	Beylerbeyi Mosque	1776-78	Abdülhamit I	-	-	-
18	Emirgan Mosque	1781	Abdülhamit I	-	-	-
19	Sebsefa Hatun Mosque	1787	Fatma Şebsafa Hatun	-	-	-
20	Üsküdar Selimiye Mosque	1789-1801	Selim III	Mansion, Kiosk-shaped	South- East	Under the eaves
21	Teşvikiye Mosque	1794-95	Selim III	-	-	-
22	Eyüp Mosque	1798-1800	Selim III	Kiosk-shaped, sparrow palace	South-East-West	courtyard doors

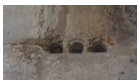
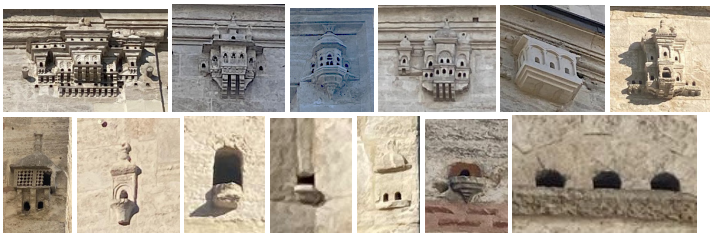
formation. These birdhouses are significant in that they are local, imperial, and global in their cultural resonance.

CONCLUSION

The use of bird motifs in Turkish culture has become more prominent since the rise of Islam, in various fields such as art and architecture. Birdhouses are one type of building that emerged within this theme, aiming to protect and shelter animals because of the importance of compassion and care for animals in Islam. These structures, typically located on the facades of monumental buildings but also found in civil architecture or as independent elements, evolved alongside architecture both functionally and decoratively.

The historical use of birdhouses in Anatolia can be observed from the Seljuk to the Ottoman periods. These structures are

Table 4. Comparison of the eighteenth-century birdhouses in Istanbul mosques

No	Mosque name	Photo
1	Çorlulu Ali Pasha Mosque	
2	Damat Ibrahim Pasha Masjid	
3	Gülnüş Emetullah (Yeni) Valide Mosque	
4	Ahmediye Mosque	
5	Nuruosmaniye Mosque and Hünkâr Pavilion	
6	Çakmakçılar/III. Mustafa Mosque	
7	Üsküdar Ayazma Mosque	
8	Fatih Mosque	
9	Üsküdar Selimiye Mosque	
10	Eyüp Mosque	

commonly found in many Anatolian cities, with the most beautiful examples located in Istanbul. In this study, various types of birdhouses were observed in buildings constructed in eighteenth-century Istanbul, including mosques, madrasas, libraries, primary schools, and inns (see Table 2). While the Üsküdar Yeni Valide Mosque, built during this period,

Table 5. Ayazma Mosque birdhouses according to the facade classification proposed in this study

Facade shape	Arched alcove-type	Rectangular Facade/Kiosk-shaped
Number of birdhouses	Number 11-12-13-14-15-16-17-18-19-20	Number 1-2-3-4-5-6-7-8-9-10
Total	10 Pieces	10 Pieces

Table 6. Facade layout of the birdhouses of Ayazma Mosque according to H. Örçün Barışta's (2000) classification

Facade shape	Pentagonal Facade	Rectangular Facade with Overhang	Arch Eye Facade	Round Lined Facade with Overhangs
Number of birdhouses	Number 6-7	Number 1-2-3-5-8-9-10	Number 12-13-14-15-16-19	Number 11-17-18-20
Total	2 Pieces	7 Pieces	6 Pieces	4 Pieces

features birdhouses, other mosques such as Nuruosmaniye Mosque, Fatih Mosque, Üsküdar Selimiye Mosque, and Eyüp Mosque do not have such ornate and intricate use of birdhouses as seen in Üsküdar Ayazma Mosque (Table 3, Table 4 and Figure 18).

The birdhouses on the Üsküdar Ayazma Mosque, which are qualified architectural artworks belonging to the period of Mustafa III, reflect the dominant understanding of the period. The Baroque style in the architecture of Üsküdar Ayazma Mosque is also remarkable in the birdhouses. Among the birdhouses of the mosque, those in the form of kiosk-shapes with rectangular facades display the stylistic characteristics of the period, while those in the form of arched alcove-types show the characteristics of the classical period. In a period when Baroque architecture developed in monumental buildings, the use of classical period elements such as *penci* arches in the architecture of birdhouses, which are simply arranged on the facades of Üsküdar Ayazma Mosque, supports this opinion. The characteristics of the form and stonework of birdhouses, built in the eighteenth and nineteenth centuries, such as those on the Ayazma Mosque, show similarities with Iranian/Ajamese and Indian palaces and mansions. These similarities point to a cultural interaction between these structures. This interaction suggests the possibility of a transfer of style in the production of the birdhouses or the role of eastern artisans who came to Istanbul. In this regard, the birdhouses on the building can be seen as a blend of eastern and western influences in terms of these characteristics.

The birdhouses, which once provided shelter and food for birds and can still be found in every neighbourhood in Istanbul, are in danger of being destroyed due to a lack of care. Without any intervention, the rap-

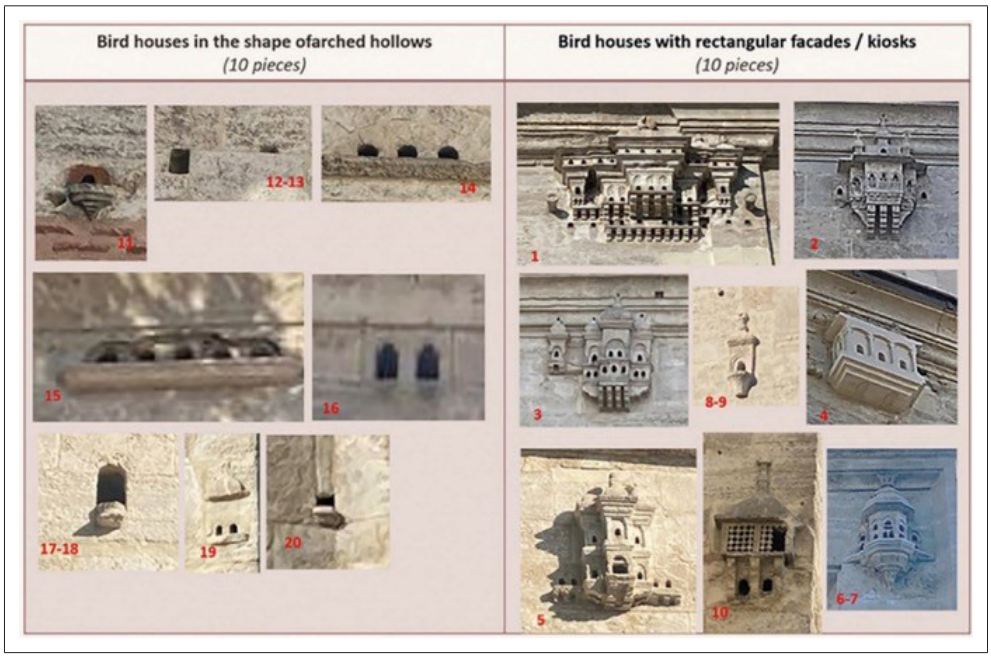


Figure 18. Facade and shape classification of Ayazma Mosque birdhouses.

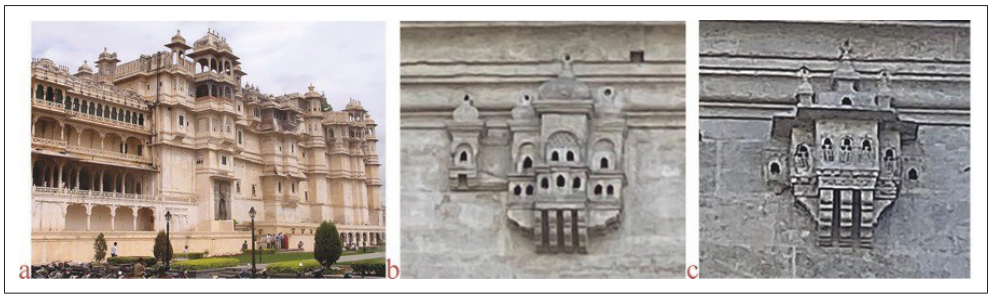


Figure 19. Kiosk-shaped birdhouses on the facades of Üsküdar Ayazma Mosque (Author, 2023-2024) and their similarity with Udaipur Palace (16th century, India) (Wikipedia, 2023).

id disappearance of these buildings seems unavoidable. In conclusion, there are a total of 20 birdhouses on the facades of Üsküdar Ayazma Mosque, courtyard entrance gates, and the facades of the *hünkâr mahfili*. Ten of these birdhouses are in the form of arched alcove-types, while the other ten are in the form of kiosks with rectangular facades. These birdhouses are significant examples of the eighteenth-century Ottoman architecture, as well as some of the features of classical Ottoman architecture, such as the *penci* arch. It is also important to document the current condition of the birdhouses that can be seen in many districts of Istanbul and are generally being restored to preserve them for future generations.

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