

## Timber-framed house specimen found on Zahra street, Nicosia

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### ABSTRACT

The objective of this study is to examine a timber-framed structure in Zahra Street, one of the most well-known sites of the Arabahmet region, located in the northern section of Nicosia, the only divided capital in the world. This research covers such topics as information of the selected structure, location, and area definition, whereby information about the layout, facade and material characteristics with their current status was also documented. The documented current status indicates what materials were used, and what application stages went into the facade and this house which was made from timber-framed material. Consequently, a study was conducted on a timber-framed house specimen, one of the two timber-framed structures found on Zahra Street, one of the most visited streets of Nicosia's touristic Arabahmet District. The objective of this study is to gain a better awareness of buildings, houses and/or structures that may be regarded as architectural heritage which was made from half-timbered material and to inform and share the obtained results and assessments with users, those in the community, tourists as well as people living in the country.

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### 1. Introduction

Cyprus is the third largest island in the Mediterranean after Sicily and Sardinia. Cyprus is surrounded to Turkey to the north (65 km), Syria (112 km), Israel (267 km) and Lebanon (162 km) to the east, Egypt to the south (418 km) south and Greece to the northwest (965 km). Drawn up in 1974, the territory of the Turkish Republic of Northern Cyprus measures 3355 km<sup>2</sup>. The island of Cyprus is situated in the eastern Mediterranean and located geographically between the latitude of 34° 33' and 35° 41' north and the longitude of 32° 23' and 34° 55' east. While Ionian researcher Homer was the first to use the name 'Kypros,' it is widely accepted that the name 'Cyprus' may have derived from the Latin word 'aes Cyprium' or its shortened version 'Cuprum,' which means Cyprus metal or Cyprus copper. While Greek Cypriots constitute 70% of the total population of the island, the remaining 30% are Turks. The largest city is the capital Nicosia. In 1571, the Ottomans conquered Cyprus with an army of 60,000 to save and protect the island's Christian population. The first significant population

change since antiquity occurred with the settling of the Janissaries on the island.

The feudal system on Cyprus was lifted and the national system was then implemented by the Ottomans. On 21 September 1571, the Sultan issued an edict to organize the construction and public works of Cyprus with settlements to take place from certain regions of Karaman Province. Accordingly, Turks began to be settled on the island of Cyprus. Cyprus was divided into four sanjaks, Nicosia, Famagusta, Kyrenia, and Paphos and converted into a state. Thus, the laws of Karaman Province were considered valid in Cyprus (Hasgüler, 2007).

The Republic of Cyprus gained independence in 1960. As a result of the Peace Operation of the Turkish Armed Forces, carried out after the Greek coup in 1974, the de facto Federated State of Turkish Cyprus was established unilaterally and in the northern part of Cyprus. This state was renamed the Turkish Republic of Northern Cyprus on 15 November 1983. The timber-framed house on Zahra Street in the Arabahmet district of Nicosia, which is the subject of the study, is an example of civil architecture. The house is one of the two timber-framed houses on that street. The goal of the first part of the study is to define the purpose of the related research and provide information about the method by specifying the scope of the research. The second part of the study defines the position of Arabahmet District and Zahra Street, its geographical characteristics and residential arrangement. The

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third chapter describes the characteristic features of traditional Turkish houses (Arabahmet). The fourth chapter contains visual material of the Arabahmet environs, one of the most popular touristic spots of Surlariçi. The fifth part of the study covers one of the two building specimens of Zahra Street that constitutes the subject of the research. The house's location on the street, features of its facade, as well as overall information about its material and craftsmanship. The sixth and last part of the study is comprised of the research evaluation and sharing the result of this evaluation.

## 2. The city and its physical environment

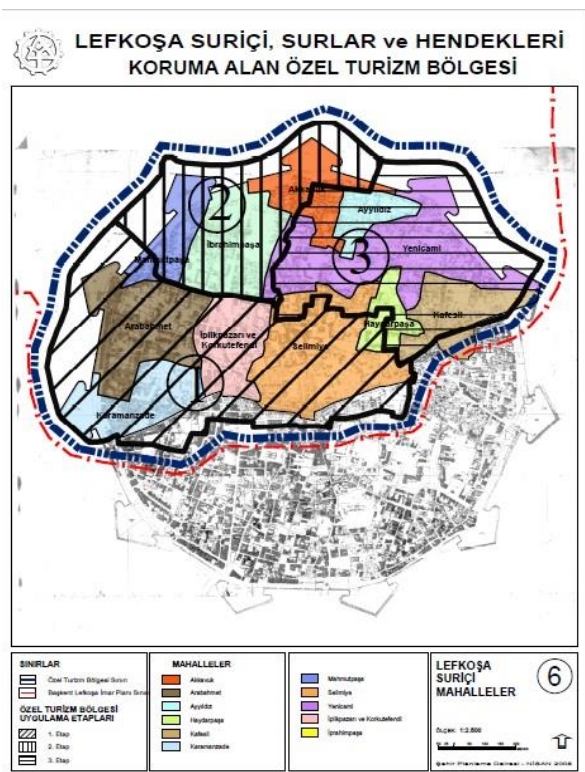
## 2.1. City of Nicosia

Located in central Cyprus, Nicosia is the capital of both the Turkish Republic of Northern Cyprus and the Republic of Cyprus. As the island's most important cultural and industrial city, Nicosia is also the most populous city. Nicosia is located geographically at 35°10' north latitude and 33°21' east longitude. Nicosia Walled city neighborhoods were shown in Fig. 1.

'Leucus' were also used for this city. After the 10th century, the name Nicosia began to be accepted in general and it was even mentioned as 'Medina-i Nicosia' or its current name of 'Nicosia' in Ottoman documents.

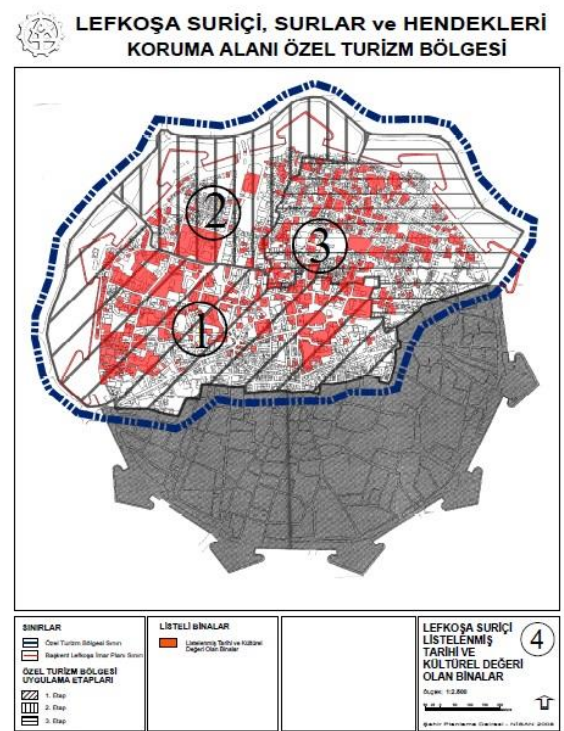
### 2.1.1. Nicosia surlariçi arabahmet neighborhood

Arabahmet Neighborhood, which has lost many of its historical features now, is located in the south-west of Nicosia and between Atatürk (Sarayönü) Square and Paphos Gate. The neighborhood is known as "Paphos Street" during the Ottoman period, "Victoria Street" during the British colonial period and now "Şehit Salahi Şevket Street Mah". The neighborhood has a long history that dates back to Lusignan. Since this region was located in the border region after 1963, a large part of the neighborhood, which has historical heritage, is located along Zahra Street and Tanzimat Street in the west, Victoria Street (Şehit Salahi Şevket) in the east and on the narrow streets opening to these three main streets. Nicosia Surlarıçi Listed Buildings were shown in Fig. 2.



**Fig. 1:** Nicosia Walled city neighborhoods (TRNCDCRP, 2015)

A crucial element of Nicosia is that it is the world's only divided capital. This city is divided into two by the Green Line (Sherwell, 2009). First called 'Ledra,' the name of the region where Nicosia is located was also written as 'Ledrae,' 'Lidir,' 'Ledras,' 'Ledron' and 'Letra.' This city was demolished and rebuilt by Leucus, and renamed 'Lefkotheon' (the city of the white gods). This name was sometimes called 'Ledron.' After that, the names 'Kermia' and



**Fig. 2: Nicosia Surlariçi listed buildings**

Like other neighborhoods of Nicosia, this one garners attention for its winding narrow streets, houses with one- or two-stories, with or without bay windows, squat arched entry doors, bay windows, and decorated wooden eaves. Door, window and slate details have enriched the district's skyline. The place of Nicosia in the country and region were shown in Fig 3.

The historical district is located on the border of the Greek side of the city. After taking on the role of the Ottoman Empire of capturing Nicosia, Governor of Cyprus, Arab Ahmet Pasha took control of the city

in the 1580s. Arabahmet Neighborhood, one of the most popular Turkish districts of Nicosia during the Ottoman period, was declared as a special district project area in the planning works after the 1980s.



**Fig. 3:** The place of Nicosia in the country and region

The Turkish Cypriot Chamber of Architects repaired a two stories civil architecture specimen in the same district with the function of a service building and became a 'homeowner' Cyprus in these important efforts. The Arabahmet District is situated 35°10'36" north and 33°21'30" is located in the eastern.

## 2.2. The history of Nicosia

The city was first settled during the Neolithic Age, approximately 3000-4000 BC. Nicosia's importance began to increase notably towards the end of the Byzantine era when it became the capital of Cyprus while the island was exposed to Arab raids in the 7<sup>th</sup> century. Nicosia continued as the capital of the island after the Lusignans bought the island and constructed numerous new buildings on Nicosia. Nonetheless, many of these structures were destroyed during the subsequent Venetian era, and the rubble was used to erect the walls. In addition, the Lusignans built irregular pentagonal walls around Nicosia. There were no walls around the city in the previous period. The first walls of Nicosia were built with two towers by King Henry I in 1211. (Makhairas, 1932). The entire city was encircled with walls during the prosperous reign of Henry II. The city was one of four bishoprics on the island of Cyprus.

In February 1489, Nicosia along with the island of Cyprus came under the ruler of the Republic of Venice. Before the Ottomans conquered Cyprus, the Venetians inspected the city walls around them and saw that they were weak. According to new planning, the length of the city walls were reduced from eight to three miles.

Nicosia was the third largest settlement captured by the Ottomans in their conquest of the island.

Piyale Pasha, along with his army mobilized to take Nicosia on 22 July 1570 (1, 2011) whereby Nicosia was blockaded three days later. The Ottomans demanded that the Venetians surrender the fortress to them, but fighting ensued when the Venetians refused to hand it over on 27 July 1570. However, the fortified walls made it difficult to capture Nicosia until an attack was launched with an army of 20,000 on 9 September 1570.

In 1572<sup>th</sup> Turkish population was gentrified on Nicosia. At that time, Cyprus was populated entirely by Turks. While the Turks replaced the Greeks who had no occupation in the city, the latter moved to districts outside the city. During this period, the city had 31 districts. Two of these, Ermiyan and Karaman, had a high population of Armenians.

Along with the entire island of Cyprus, Nicosia was put under the sovereignty of the United Kingdom on 12 July 1878. The Union Jack was hoisted for the first time over the Değirmen Tower near Pafos Gate when British troops entered the city through Kyrenia Gate. Founded in 1882, the Municipality of Nicosia (NCM, 2011) experienced growth beyond the city walls.

The Republic of Cyprus was founded on 16 August 1960 and the Republic of Cyprus flag was hoisted over the House of Representatives on the same night. Concurrently, British sovereignty and domination over Cyprus had ended. According to Article 173st of the Constitution of the Republic of Cyprus, the Nicosia Greek and Turkish Municipalities were established in Cyprus (CTTTAA, 2011).

## 2.3. Nicosia's geographic characteristics

### 2.3.1. Location and position

As the capital of the Turkish Republic of Northern Cyprus, Nicosia is located in the central part of the island, in the middle of the Mesarya plain. It is within the boundaries determined by the Mesarya Plain and the Kanlidere (Pedias) River that flows between the Trodos and Beşparmak Mountains in the northeast of the island. Nicosia is located at 35°10' north latitude and 33°21' east longitude (Fig. 3) (CTTTAA, 2011).

### 2.3.2. Climate and vegetation

According to Köppen climate classification criteria, Nicosia's climate is hot and semi-arid. According to this, the city's hottest months are July-August and the coldest months are January-February. The city receives its most rainfall in January. The city is one of the hottest spots on the island (TRNCMS, 2015). Moreover, the summers are hot and dry, and winters are mild and rainy. Nicosia climate data median statistical values were shown in Table 1.



**Table 1:** Nicosia climate data median statistical values (BBC, 2011)

Months	Jan.	Feb.	March	April	May	June.	July.	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Highest Temp. (°C)	22	26	30	35	43	44	44	44	42	41	33	24	44
Average Highest Temp. (°C)	15	16	19	24	29	34	37	37	33	28	22	17	22,6
Average Temperature (°C)	10	10,5	13	17	21,5	26	29	29	25,5	21	16	12	19,2
Minimum Average temperature (°C)	5	5	7	10	14	18	21	21	18	14	10	7	12,5
Minimum Temperature (°C)	-3	-6	-2	1	7	11	15	14	12	6	-1	-3	-6
Average Rain Received (mm)	76	45	36	18	22	9	1	2	10	25	33	68	28,75

The sections of the city along the creek, especially the Kanlıdere portions, offer immense biological diversity (CTBA, 2003). The river beds are particularly rich in vegetation. A survey covering a 12.5 km radius of the city revealed 185 different species of plant species belonging to 62 different families (CTBA, 2003). Of these species, four different species are endemic and 16 are defined as endangered. It is possible to encounter different species of Eucalyptus (CTBA, 2003), which is the most common tree species encountered along the creek banks of Nicosia. There is a forest area of 262 km<sup>2</sup> in Nicosia's northern quadrant (TRNCMASPD, 2007). The average annual temperature in Nicosia is 19.2° C.

The highest median temperature is in August (37°C), while January has the lowest median temperature (5°C). In addition to these measurements, the lowest temperature in Nicosia was measured as in February (-6°C) and in August (44°C) (Table 1) (BBC, 2011).

### 2.3.3. Geological structure

The city is situated at the center of the Nicosia Formation, a geological formation with the same name. The history of this region dates back to the Lower Pliocene Epoch. Limestone of different hues (sandy and yellow color), marl layers of different hues (gray, yellow and white colors) and sparse conglomerate bands are commonly encountered in this geological makeup (TRNCGMD, 2011a).

New deposits were formed as the sea rose as a result of the convergence of the Atlantic Ocean and the Mediterranean Sea. As a result, the Nicosia Formation was formed (Konstantinou, 2010). Measuring 60 km<sup>2</sup>, the Nicosia-Serdarlı aquifer is located beneath Nicosia (TRNCGMD, 2011b).

### 2.3.4. The settlement order

It is possible to divide Nicosia into two urban sections. These can be described as 'Old Nicosia' which is the area within the walls and the 'New Nicosia' outside the walls. Old Nicosia's roads are narrow with some cul-de-sacs, while new Nicosia was built over a larger area. New Nicosia also has

more vertical and horizontal development zones and its parks, roads, and intersections are wider. The Armenian houses in Köşklüçiftlik were made from cut stone and feature original architecture. The bay window protrusion was a very common feature encountered in old Nicosia houses (Mor and Çitçi, 2007).

### 3. Turkish architecture and houses in Cyprus

Turkish architecture works, which varied in terms of military, civil and religious structures, were brought to Cyprus and contributed greatly to the formation of the historical fabric during the Ottoman Era (1571-1878). Mosques, which were the religious buildings most frequently sampled, were similar to concurrent architectural works of Anatolia. They were built using locally quarried cut stone, and wood and adobe as well as other natural materials which were most used and preferred. The mosques and houses have survived to the present with their own special functions. Although conservation efforts over the years have left much to be desired, the traces of

Turkish architecture on Cyprus continues to exist to be functional or non-functional through maintenance, repair, and restoration work carried out on occasion to convey them into the future. The adobe tiled roofs, wide, dazzling eaves and courtyards have as much an important place in the historical texture of the capital Nicosia as the character of Traditional Turkish House (Figs. 4 and Fig. 5).

Houses of different sizes lined up in rows along narrow streets in an adjacent settlement layout constitute the historical neighborhood makeup of the Ottoman Era. First constructed with an outer antechamber, then with an inner antechamber from the late-19<sup>th</sup> century onwards), these houses generally had two- stories plans. The lower floors consisted of a utility room, a kitchen, storage, and similar service spaces, while the upper floor rooms were livings spaces. While serving many purposes, these rooms opened into the common venue, the antechamber. The master bedroom, which was used as the guest room, was designed as the most magnificent room of the house with its location, flooring, ceiling, furnishing, and decoration. In the

houses that have outer antechambers, this room would open out into the courtyard via stone columns or porticoes with pointed arches, merging the indoor and outdoor living spaces of the household. Designed with a bare facade approach, these houses used masonry construction system and built with stone, wood and adobe materials. The covering system is a wooden structured sloping roof. The courtyards feature various fruit and date trees as well as water architecture elements such as fountain wells and water reservoirs (Turkan, 2016).

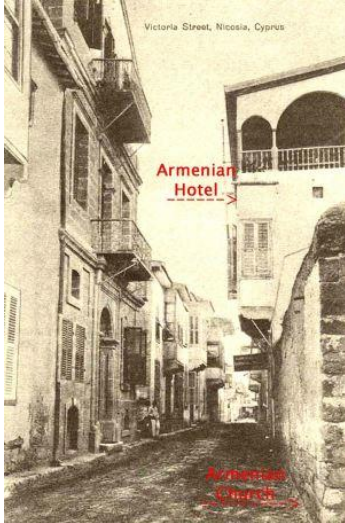


Fig. 4: Nicosia Arabahmet neighborhood



Fig. 5: A specimen of a traditional home in Nicosia (Turkan, 2016)

#### 4. Timber-framing houses located in arabahmet neighborhood, Zahra Street

Some of the works built of high-quality materials on Zahra Street in the Arabahmet District have survived to the present. Two of these buildings, which are specimens of civil architecture, are still inhabited along the street (Fig. 6). These houses feature the traits of traditional houses and have similar characteristics from the layout aspect (Fig. 7). Fig. 8 shows Right facade and zoom image of another timber-framing house on Zahra Street and

Fig. 9 shows Timber-framing houses with civil architecture examples.



Fig. 6: The locations of registered timber-framed houses



Fig. 7: Front and left facades of other timber-framed houses on Zahra Street

#### 5. A half-Timber house on Zahra Street in Arabahmet district

##### 5.1. Location in the city

It is located amongst the listed buildings of Arabahmet District on Zahra Street No: 21, administrated by Surlariçi, Nicosia (Fig. 10 and Fig.



11). The original use was housing and today's usage is nothing.



**Fig. 8:** Right facade and zoom image of another timber-framing house on Zahra Street

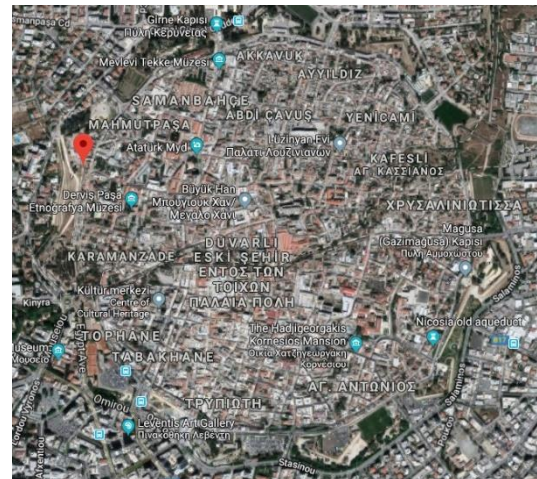
This timber-framed house is located in the Arabahmet District on Zahra Street, adjacent to the street, with masonry and cut stone structures in the vicinity (Fig. 13). Also the side facade of the timber-framing house were shown in Fig. 12.

## 5.2. Plan and features

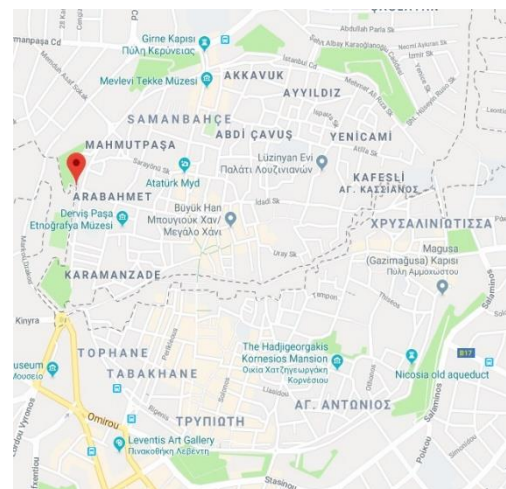
Located on Zahra Street, in the Arabahmet District, The entrance to the two-storied house structure is on the street. The timber-framed building is comprised of two sections, the ground floor, and the 1<sup>st</sup> floor. Location of the timber-framing house on Zahra Street Were shown in Fig. 14.



**Fig. 9:** Timber-framing houses with civil architecture examples



**Fig. 10:** Location of timber-framing house



**Fig. 11:** Location of the timber-framing house in the city



**Fig. 12:** The side facade of the timber-framing house





**Fig. 13:** The view of timber-framing house in street

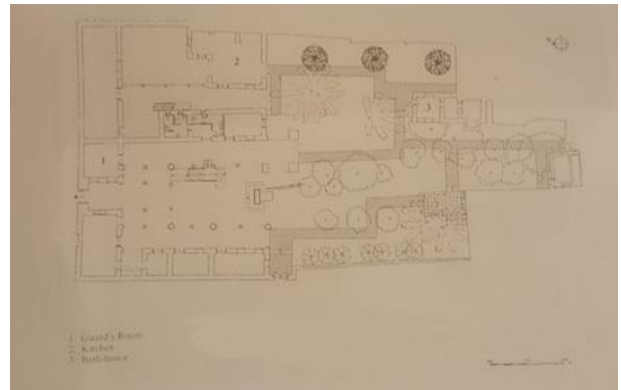


**Fig. 14:** Location of the timber-framing house on Zahra Street

### 5.2.1. The ground floor plan

The specimen two-story timber-framed house was built using the masonry construction technique. While a portion of the walls on the ground floor plan was cut from yellow stone, a part was erected using adobe. The ground floor has wood flooring. The entrance to the house is through the street facade. The plan and sitting space consist of three main sections; rooms, kitchen, and bathroom. The ground floor service spaces open to the porch (Fig. 15).

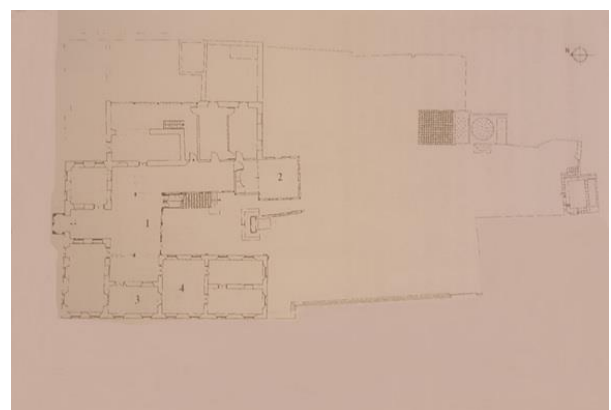
The ground floor has rooms and spaces facing both the inner courtyard and the outer facade, that is, Zahra Street (Fig. 15).



**Fig. 15:** Ground floor layout (Salihoglu, 2006)

### 5.2.2. First floor plan

Used as a residence, the first floor of the timber-framed house features the Baghdadi building technique. This is the technique of filling the gaps between the beams and pillars with plaster material on the wooden skeleton. With this technique, the thicker walls built on the ground floor are replaced with thinner walls on the upper floor. This section consists of a total of six sections; the hall, bathroom, rooms and antechamber, the latter of which is used in traditional Turkish houses. The entrance to the house is via the courtyard with a single set of steps. The hall is entered through this area called the 'çıkma.' The hall provides access to the bathroom, room, and kitchen. Wooden beams are used on this floor. Located over Zahra Street, the bay window is supported by wooden beams and has four sash windows. Two windows open over the same facade out to the street. Some of the upper floors were also built with adobe (Fig. 16).



**Fig. 16:** First floor layout (Salihoglu, 2006)

### 5.3. Facade features

The facade of the house, which we can define as Zahra Street, is the only facade open to the outside whereby it has a bay window (Fig. 19). The timber-framed house was built with the Baghdadi system. The windows on the facade are rectangular. The wooden windows in this facade are sash windows

(Fig. 17). The wall on the right side of the entrance facade was built as a mudbrick wall on both the ground and 1st floors.

The walls on the ground floor not built from Adobe were built from yellow stone. On the ground floor, doors and other wall cavities were crossed with arches. It is observed that gypsum plaster was applied particularly on adobe walls. The bay window perched over the entrance door was fashioned using the timber-framed technique. Yellow stone was used as a filling material. (Fig. 18 and Fig. 19). It is supported by wooden beamed floor whereas these wooden beams can be seen as a facade element. Fig. 20 were shown Right side facade of the house and Fig. 21 were shown Right facade of the house.



**Fig. 17:** The timber-framed house facade



**Fig. 18:** Front view of the timber-framed house



**Fig. 19:** Bay-window detail of the house



**Fig. 20:** Right side facade of the house



**Fig. 21:** Right facade of the house

### 5.3.1. Doors

The house has one main entrance door, which is entered via Zahra Street. The original door has not survived to the present and there is no entrance door currently mounted and functioning on the building. (Fig. 17). The entrance door was arched and the upper part is covered with examples of hot latticework, which also reflects the period's characteristics found in the whole region. The yellow



stone arch positioned over the door is good, and the keystone and stirrup stones have survived to the present in nearly original state (Fig. 22).



Fig. 22: Single entrance door of the house

### 5.3.2. Windows

The house has seven rectangular windows on the main facade overlooking Zahra Street. One of these windows is on the ground floor and six are on the 1st floor. Four of these six windows on the 1st floor are windows belonging to the bay window. The two windows face Zahra Street, and the other two face each other on one side of the bay. While these windows are sash windows (Fig. 23), the others are wooden windows (Fig. 24).



Fig. 23: Sash window and bay window detail



Fig. 24: Wooden windows

### 5.3.3. Bay window

In traditional historic houses, the caged room compartment with the protrusion overhanging the street on the floor above the ground floor is called the bay window (Fig. 25 and Fig. 26). In the traditional Turkish houses located inside Nicosia's city walls, it is possible to encounter bay windows. The bay is another part of the traditional houses that defines the antechamber. The bay window was built as a wooden beam floor (Fig. 25). Sash windows were used on the facade overlooking Zahra Street. Though wooden buttresses are frequently seen as supports in traditional bay windows, they were not used in this case.



Fig. 25: The bay window in the front facade



Fig. 26: Detail of the bay window

### 5.3.4 Roof

The roof cover is a cradle roof and a corrugated tile covering (Fig. 27). The roof cover over the bay window has not survived to the present.

### 5.4. Material characteristics and workmanship

Walls or buildings made by filling masonry material such as bricks, stone, adobe, etc. between wooden frames formed by stanchions and boards are called 'Hımış' or 'timber-framed' in architecture.

The spaces of a skeleton frame are filled with stone, adobe or brick and are a wooden construction type.

It has been observed that 'hımsı' or 'timber-framed' structures formed by filling the wooden framework that complied with construction regulations remained intact during the 1999 Adapazarı and Düzce earthquakes thanks to the ductility of the wooden framework and proper energy emission and energy absorption properties of the adobe blocks used as fillers.

We can study the building materials that form the building structure under two main headings of 'support system' and 'filling material.'



**Fig. 27:** Roof of the adobe house

'Wood' is the material of the support system. Different materials were used as a filler and these different materials produced different types of timber-framed buildings. Namely:

- Branch and Mud Filled Timber-Framed Structures: In this system, tree branches are woven between vertical framework elements. Then the two sides are plastered with mud. It is a type of construction commonly used in the stream and river valleys.
- Stone Filled Timber-Framed Structures: Are obtained by filling stones between the wood framework. Mud is generally used as a binder.
- Brick Filled Timber-Framed Structures: Are formed by placing bricks tilted or flat inside the wooden frame. Encountered particularly in the Marmara, Northern Anatolian, and the Black Sea regions, and rarely in Central Anatolia and Ankara.
- Adobe Brick Filled Timber-Framed Structures: These structures are formed by filling adobe block material into the wooden framework.

Adobe, stone, brick, and wood have been used as filling material in traditional timber-framed structures constructed in our country. Particularly, the friction reaction of brick and mudbrick blocks tilted up between the posts absorbs the lateral forces, thus preventing by earthquake energy from damaging the structure. Slats hammered onto the wooden posts ensure that the filling and frame move together. The disadvantage of choosing brick or Adobe as filler in the timber-frame structures is that they add extra weight to the structure. However, it has been observed after the Duzce Earthquake that the energy absorption properties of the structures formed by filling the frame system with brick and adobe survived with less damage than other structures.

Although timber-frame structures weigh more than the Baghdadi type, they eliminate the disadvantage of the rigid fillings in the frame. In other words, the frame system moves together with the filler wall during an earthquake, resulting in a support capacity and rigidity which is notably higher, compared to that of an empty frame.

## 6. Evaluation and conclusion

As the 3<sup>rd</sup> largest island in the Mediterranean, Cyprus has a total surface area of 9235 km<sup>2</sup>, 3242 km<sup>2</sup> of which belongs to the T.R.N.C.

Cyprus began to be settled around the year 1500 BC, whereas many states ruled the island. For reasons such as the island's geographical position, and states that ruled over Anatolia also possessed Cyprus, the island changed hands at least 15 times from the time of the Hittites until today. The island was put under Ottoman administration in 1572. Its cities also developed during Ottoman domination of the island. The British took administrative control of the island in 1878. The Turkish-Greek struggle has continued from the time the island was put under British rule until the present day (Mor and Çitçi, 2007).

The Venetians built the thick, high walls around Old Nicosia to defend against the Turks in 1567. Surrounding the old town of Nicosia, these walls feature 11 towers bastions. It is possible to divide Nicosia into two parts, Old and New Nicosia, from the differences in structures.

The part that expanded beyond the walls is called New Nicosia, which encompasses an area larger than Old Nicosia. Settlement in new Nicosia has mostly been transverse and vertical due to urbanization. Compared to Old Nicosia, roads and intersections were planned more broadly with more space is reserved for parks. What we call Old Nicosia is the section within the walls, with narrow and cul-de-sacs. Streets with densely packed houses and old buildings are quite common in Old Nicosia. It is possible to see Ottoman, Lusignan and Venetian architecture elements in these streets where old buildings with bay windows are seen (Mor and Çitçi, 2007).

There are houses in Nicosia/Surlarıçi and therefore in and around the Arabahmet District and Zahra Street that were built of adobe, mud, and stone. As one of the construction methods that represent the traditional type of housing, timber-framed houses are two-story, with sash windows, some with squat roofs, and some with cradle roofs. Some of the timber-framed houses, of which there are not many examples in the city, a few are still in good condition. One of those houses is registered on Zahra Sokak and in the previous sections. However, the sample of the timber-framed house, which was chosen as a field study, has not reached the present day in a very healthy way. The plan type of the house at Zahra Street No. 21 resembles that of the traditional housing pattern.



Comprised of a master bedroom, an antechamber, a kitchen, a bathroom, a seating area, and a hallway, this two stories house has one of the traditional architectural elements of the period on the facade and has a bay window protrusion overlooking the street, supported by wooden beams. As a plan, the bay encompasses the antechamber section.

The sash windows in the bay protrusion are replaced with windows of different makeup on other facades.

While the left side facade of the house is 'blind' as it is situated adjacent to the building next door, the other facades are defined by rooms and windows opening onto Zahra Street.

The main door to the building is double-winged and wood-crafted materials, with a skylight over it. Corrugated roofing was used as roof cover and wooden beams are used inside.

The construction technique used in some of the traditional houses found within the Nicosia Walls also constitutes the material of the sample house. A part of the house selected as fieldwork was built with the timber-frame technique and yellow stone was used as filling material. Gypsum plaster was applied over the yellow stone. In addition, Adobe was used in the construction of a portion of the house. There are many reasons for the usage of mudbrick material which was used as filling material and obtained by mixing soil, water, and straw. It is important to extend the use of the natural material in the building construction system which has the feature of trapping heat in the winter and cool in summer. Because adobe material is one that is eco-friendly, can be recycled and consumes less energy.

### Compliance with ethical standards

### Conflict of interest

The authors declare that they have no conflict of interest.

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