

# Reading of Traditional House Texture Through Street and Facades: Ottoman-Turkish Town, Göynük

Çiğdem Belgin DİKMEN<sup>1,\*</sup>

<sup>1</sup>*Bozok University Faculty of Engineering and Architecture Department of Architecture,  
Divanlı Yolu, 66100, YOZGAT*

*Received: 30/06/2014 Revised: 25/09/2014 Accepted: 30/09/2014*

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## ABSTRACT

Göynük, one of the most important examples of Turkish settlement and culture of life in Anatolia, appears to be a much less distorted Ottoman town considering its current situation. The aim of this study is to analyze the spatial structure, its relationship with the streets as the public space, and the facade layout of the traditional houses that managed to survive in Göynük and that are seen as values to be protected. The parameters that determine street and facade layout in traditional Göynük houses were analyzed in the study, and suggestions were put forward to protect Göynük houses seen as the concrete values that should be passed on to future generations.

**Keywords:** Göynük, spatial building, public space, street, facade layout

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## 1. INTRODUCTION

Historic cities, with their socio-economic, cultural, and physical values, are important elements of our social and cultural heritage. These settlements are important architectural values to be protected and transferred to future generations, which reflect lifestyles as well as the knowledge and technology of civilizations that disappeared through their architectural, private, and public spaces. In this regard, examples of monumental and civil architecture, and the settlements composed of these examples are defined as the set of values that reflect the social, cultural, and economic life of their neighborhood and provide direct and accurate information to the future generations. Göynük, one of important examples of Turkish settlements and culture of life in Anatolia is one of the 19th century Ottoman Turkish settlements that still stand today where urban texture and traditional way of life are considerably preserved through works of architecture such as

traditional houses, mosques, fountains, baths, and mausoleums.

Located as the second largest district after the central one in the southwest of Bolu, Göynük is easy to access, just 98 kilometers away from Bolu city center and near the neighboring city centers (220 kilometers to Istanbul, 230 kilometers to Ankara) [1]. Despite the advantage of ease of access and location, the hills surrounding Göynük, valley slopes, and streams determined the formation of the spatial structure, and the physical structure limited by valleys inhibited the growth of the settlement. Furthermore, region including forests and arable land limited the restriction of the movement of construction [2] and contributed considerably to the preservation of the traditional houses and the texture of the city. Dominated by Phrygian, Lydian, Persian, Bithynia Kingdom and Byzantine civilizations, İznik, Umut, and Çandaroğulları principalities respectively, in the historical process [3-7], the settlement, based on the accounts of the travelers who toured Anatolia [8, 9] and

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\*Corresponding author, e-mail: cigdembelgin@yahoo.com

the Ottoman historians, was annexed by the Ottomans in 1331 or 1332 [10-14]. The settlement, keeping its location of caravans and shipping way to Baghdad in the Ottoman period, was governed depending on Bursa, Eskişehir, and Bolu Viranşehir Sanjaks during the last years of the Ottoman Empire [10-15] and became one of the districts of Bolu in the Republican Period [5, 15, 16]. The fact that Göynük had a dynamic structure in terms of economics and politics in the Ottoman Period and in the early years of the Republic contributed greatly to the preservation of the settlement texture until today. The repairs particularly on public and religious buildings starting with the construction movements that accelerated in the late 18th century and in the first quarter of the 19th century, and the westernization movements felt intensively since the mid-19th century became the determinant in forming the traditional architecture of Göynük. Although some of the traditional houses protected significantly during the first years of the Republic were destroyed and damaged due to the urbanization policies and development applications after 1950, Göynük, with its 175-year-old traditional houses that function largely, appears to be a much less corrupted Ottoman-Turkish town.

The buildings in the settlement that had a city texture where urbanization and transportation were solved in great difficulty due to the topography were located, stably and independently but at the same time in a unity of language in the form of the parts of a whole, on hilly areas to the flat plains. The settlement is composed of traditional houses, often with a garden, built at the end of the 19th century and the beginning of the 20th century, similar to each other in terms of scale and materials, and the reinforced concrete buildings built between 1930 and 1970, inconsistent with the urban scale and the traditional pattern [17]. However, in spite of this type of construction, it is observed that the settlement has a quality texture, starting with the single building scale to the urban scale. Three different development plans have been prepared for the city since the declaration of the Republic to the present in Göynük, and three protection laws that are not different from each other have been adopted. In accordance with the first development plan in 1951, İstanbul-Ankara Highway (Gazi Süleyman Pasha Boulevard) was passed through the city [18], and the traditional texture was considerably damaged. The second development plan prepared in 1976 was not put into action, and a third development plan was decided to be prepared for the purpose of protection in line with the Decisions of Ankara Cultural and Natural Heritage Protection District Board. The protected area borders were determined in Göynük development Plan that included Göynük Protection development Plan [19] and that has been in force in Göynük since 1991, and accordingly, the identification and registration work was conducted to determine the buildings to be protected. As a result, based on the findings of the Ministry of Culture Ankara Cultural and Natural Heritage Protection District Board, 132 houses that still stand today were registered as the historic buildings. This study aims to analyze the spatial structure, and the relationship with the streets as the public space, and the facade layout of the traditional houses that managed to survive in Göynük seen as historic and cultural values to be protected. Some houses which are not urban scale and adapt to

traditional texture and recently built houses are excluded from the scope of the study. Göynük traditional housing in tissue holds an important place and the city forming the core and center of the first residential area that Cuma, Yenice, Sofuoğlu, Hacıabdi, Kepkebir and Çeşme districts selected 31 houses on facade parameters that determine the facade layout analysis and to investigate comprise the method of the study. History of all Göynük houses which evaluated and photographed and established database in this study were dated back to the late 19th and the early 20th century and registered. Houses which analyzed in this research were selected in Cuma (12 houses), Yenice (11 houses), Sofuoğlu (3 houses), Kepkebir (2 houses), Hacıabdi (2 houses), and Çeşme (1 house) district and 16 of them were 2 and 15 of them 3 stories. The houses that do not conform to the urban scale and the traditional texture and that have been recently built have been excluded from the scope of the study. The parameters that determine street and facade layout in traditional Göynük houses were analyzed by associating them with Turkish houses and suggestions were put forward to protect Göynük houses seen as the concrete values that should be passed on to future generations.

## 2. THE RELATIONSHIP OF THE TRADITIONAL GÖYNÜK HOUSES AS PUBLIC SPACES WITH STREETS AND FACADE LAYOUT

### 2.1. Public and Private Space

In general terms, the public space is defined as a controlled space that can be used freely, but one does not belong to anyone, while private space is the space open to use by particular people or groups where these individuals perform their social relationships and activities freely [20, 21]. Semi-public/semi-private spaces that can allow passing through between private and public spaces, on the other hand, provide individuals with different opportunities of use through different classifications. The concepts of public, private, and semi-public/semi-private spaces vary depending on community value systems, traditions-customs, and cultural structures. In this context, it can be stated that the concepts of private and public spaces are shaped by versatile effects in reaction to the lifestyle of the society, evaluated, and defined differently from each other in different structures of society [22-26].

According to Norberg-Schulz switch between public space and private space in the character of the street, which is associated with their surrounding structures and are in a collective life. Street to preserve these features in response to user requirements, and allow for each action and appropriate depends on the topography. As public spaces streets that limit and surrounding buildings should have an identity and a space organization [27]. Including the Göynük, Ottoman settlements are seen to provide these features. It is seen that in Ottoman cities and in traditional settlements, the examples of monumental buildings and of civil architecture differ in their relationship with squares and streets through their forms of spatial layout, that public, semi-public, and private spaces are different from each other clearly, and that each space adopt different characteristics [28-30]. Neighborhoods, streets,

avenues, and squares are semi-public spaces that can be controlled, adopting common and similar meaning for users. The houses are the buildings where privacy is attached great importance in the Ottoman-Turkish society. Therefore, rather than entering the house defined as the private space directly from the public space, it is accessed through semi-public/semi-private spaces. In this context, in the Ottoman-Turkish city, the street, whose border was naturally set by the location of the house and which became a part of public life [31], is defined as the private space and the intersection of the concepts of public spaces and the space where the borders of these spaces are fused and abolish. In other words, the street, in addition to being a part of transportation, function as the outdoor spaces where houses defined as the private space intersect with public space. The availability of elements such as the location of the house, plan typology, number of floors, garden, and outbuilding determine the inclination of the house facades towards the streets as the public space.

## 2.2. Streets as the Public Space in Göynük

In Göynük, as in other Ottoman-Turkish cities, the monumental buildings, similar to each other in terms of scale and materials, were located in the city center on the areas where valleys united, while the traditional houses dated back to the late 19th century and the early 20th century were located on slopes, a typical location for the Ottoman-Turkish cities and shaped through various solutions provided by settlement on slopes. Göynük, having a homogeneous structure, consists of Çeşme and Cuma districts as well as Hacıabdi, Sofualı, and Kepkebir districts, which have the same names with some mosques (Figure 1). Cuma District, which holds an important place in the texture of Göynük traditional houses today, is known as the first settlement of the center. In traditional Göynük houses, which were shaped by topography, the parcel layouts were formed by organic street texture, and the streets located vertically or parallel to the slope became determinant in the location of the houses in the parcel.

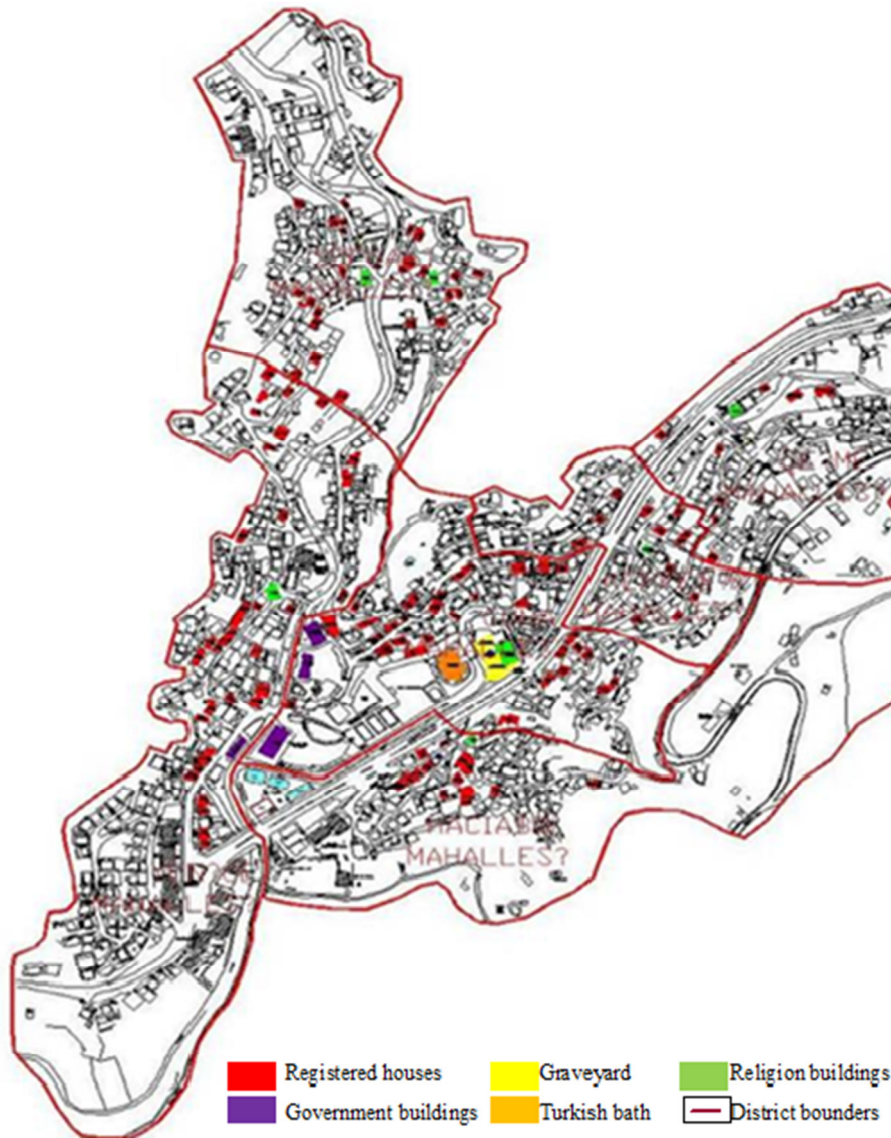


Figure 1. Göynük districts and registered buildings [32]

The relationship of the traditional houses with the street as the public space is important in that it indicates the bond that users have with the society. The appropriate use of topography in Göynük provides the opportunity to reach the houses from different streets and elevations. The fact that the facades facing the street have a more elaborate design and can be easily accessed can be explained by the appropriate use of topography as well as the value assigned to the street as the public space by the facade (Photograph 1). In line with the first

development plan adopted in 1951 in Göynük, Gazi Süleyman Pasha Boulevard, passing through the settlement and the valley, Beybahçesi Avenue, passing through Beybahçesi Valley, and Ankara Avenue, connecting these two roads, which caravans used in the past, are the most important center lines of the city [33]. Connected to these center lines mainly through the bridges over the streams, other avenues and streets are steep and staged through stone or wooden stairs.



**Photograph 1.** Göynük houses (attached buildings) street facades  
(Ç. B. DİKMEN-F. TORUK Archive)

- A. Hacıabdî District. A general view from Deve yolu Street
- B. Cuma District Selim Çapar Avenue Municipal Building, the Old Inn, 3 Block, 1 parcel
- C. Yenice District, Çaykenarı Street, 19 Block, 18 Parcel
- D. Cuma District, Ankara Avenue, 167 Block, 2 Parcel
- E. Yenice District Ankara Avenue, 53 Block, 1 Parcel

### 2.3. The Parameters Determining the Facades in Göynük Houses and Facade Layout

The facade forming the natural border of the street composes the language of expression that enables the integration between the house including the family life and the street providing the entrance to the public space. Each element involved in the emergence of this language contributes to the definition of the building. The diversity seen in the plans of the traditional houses in Göynük is also reflected in the facades. The basic parameters shaping the facades in the houses are settlement and parcel layout, plan schemes, floor plans and entrances, door and window layouts, outbuilding and roof layout.

**Settlement and Parcel Layout:** Göynük houses were located on narrow streets and valley slopes in parallel to the slopes of 5-10% on flat areas, of around 25-30% on slopes and sometimes ranging up to 40%. The location of the houses built during the process of change in the 19th century in Göynük is different. This difference is due to the fact that the traditional houses which were located on large lands behind the garden walls and lived in their own privacy were re-located on small lands, either on an edge or corner of a parcel, as a result of the

changes made in land parceling in the late 19th century, and the fact that their entrance to the street were provided through at least one facade.

While the houses were located on discrete points, the examples located on the streets perpendicular to the slopes were of small scale and attached to each other [17]. The parcel layouts were formed by organic street texture based on slopes, and the streets located vertically or parallel to the slope determined the location of the houses in the parcel. The entrance to the house is provided either through the garden gate on a wall (from the garden) or the entrance door on the main facade of the building, which opens to the street. Caused by the use of parcel in this case, the relationship between the structures of the street and can be displaced. The slope of the land and the landscape being in the same direction in Göynük led the front facades of the houses parallel to the slope of the land and in the wide parcels to view Göynük Stream and Göynük Valley [17]. Various different solutions were found to maintain the relationship of the houses located on the streets parallel to the slope with the environment. What makes and reflects this difference are the entrance spaces of the houses. In Göynük, the entrance was provided in the back facade and the upper grade in the

opposite direction of the landscape for the houses located on the lower level of the road, while it was provided in the front facade and in the lower grade for the houses located on the upper level of the road [17]. The entrance facades of the houses that shows the texture integrity in harmony with the topography are not inclined toward each other with the idea of respecting the buildings. The houses' relationship with the streets is important in that it shows the users' relationship with private space and public space in social life. Due to the land slope and the street layout emerging as a result of this slope, the houses are perceived through the streets to which entrances are located. The houses shaped

based on the streets have two or three stories in the gardens. Very few houses are located on intermediate and corner parcels and attached buildings (See Photograph 1). The change in the number of the stories on the buildings located on the corner parcels due to the topography forces the facade typology of Göynük houses to be planned based on the number of stories or the parcel. There are some examples of houses including gardens in the behind, front, and corner parcels on all four sides (Photograph 2). The garden gates include wooden single or double doors. The houses were generally made of stone masonry (ground floor), frames, bricks, or adobe bricks (upper floor).



**Photograph 2.** Göynük houses-garden relationship (Ç. B. DİKMEN-F. TORUK Archive)

A. Yenice District, Çaykenarı Street, 19 Block, 13 Parcel

B. Cuma District, Dik Street, 48 Block, 2 Parcel

C. Çeşme District, Şihhızır Street, 99 Block, 13 Parcel

**Plan Schemes:** Sofa (hall), the most important spatial element seen in traditional Turkish houses, is also the main area that composes the character of Göynük houses. The spatial organization of the houses is determined by whether the sofa is open or closed to the exterior of the house. In Göynük, in addition to the houses with inner sofas closed to the outdoor weather conditions and the houses with outer sofas open to the outdoor weather conditions, there are also examples of houses which have mixed spatial organizations that can be used in two ways as haremlik (women's only) and the selamlık (men's only). Although the most common planning scheme on the main floors includes inner and the middle sofas, there are other examples in which an outer-sofa plan scheme is used. The sofas in Göynük are open and large as much as possible. The houses with inner sofas are classified as the houses with inner-sofas including iwans, with inner-sofas including a side corridor, and with biaxial inner sofas (L-shaped). It is also observed that the sofa in the houses is positioned perpendicular to the street, and all or some of these sofas in the street facade or back facade are articulated with oriel- a kind of projection or structure projecting from the wall face of a building (oriel-şahniş the extension with a terrace and separated from interior by a wooden arch). Despite the facades generally plain in Göynük Houses, it is seen in the houses of the users whose level of income is high that the characteristics of the general plan and the facades differ.

**Floor Layout and Entrances:** The difference between the lower grade and the upper grade that face the landscape in the examples of the houses located parallel to the slope in Göynük becomes the determinant of the floor layout. It is seen, in this type of houses that the back facade is of one story, while the front facades facing the hillsides or the landscape are of 2-3 stories. On the other hand, while Göynük traditional houses are

composed of 2 stories, as an expression of the trend that emerged in the end of the 19th century, the houses with three stories and many rooms are widely available. In the examples of the early houses, while the street facades are plain, these examples of the recent period can be seen as by-products, between traditional Turkish houses and İstanbul houses. The plans developed in accordance with the topography led the houses to have a low-ceilinged mezzanine. It is seen in traditional Turkish houses that the organization of the ground floor has an organic structure in line with the situation of the parcel and that the places randomly come together, with the functions such as a barn, a woodshed, a hayloft, and a storeroom. Therefore, the studies conducted on the plan typology of traditional Turkish houses focuses on the plan scheme of the upper floor (living floor) found to have had a specific plan layout [34-36]. The ground (garden), in line with the plan typology of traditional Turkish houses, is used as a place for service, labor, and production to perform the functions such as an outer hall, a barn, a hayloft, a woodshed, a storeroom, a larder, a warehouse, and sometimes a stove, while the upper floor is used as a living place. While two-story houses are composed of ground (garden) floor allocated to the function of service such as a barn, hayloft, and a store room, there are some examples including a mezzanine located between the ground (garden) floor and the living floor. In these examples, the floor at the level of the upper street or the avenue where the users have their daily life is used as the ground (entrance) floor (Photograph 3). The main living floor is the upper floor in the two-story houses perceived as having a single floor and can be entered directly. This floor is allocated to married children and guests. There is generally a sign of wealth noticed in decorations and the quality of the materials used as well as the number of floors and main rooms in the houses of the owners with a high level of income.



**Photograph 3.** Göynük three-story houses (Ç. B. DİKMEN-F. TORUK Archive)

- A. Hacıabdi District, Deveyolu Street, 138 Block, 12 Parcel
- B. Hacıabdi District, GSP Avenue, 125 Block, 2 Parcel
- C. Yenice District, Çaykenarı Street, 16 Block, 3 Parcel
- D. Hacıabdi District, Yazganlar Sokak, 137 Block, 12 Parcel
- E. Kepkebir District, Akgün Street, 94 Block, 3 Parcel
- F. Sofuali District, Kayhanlar Street, 63 Block, 1 Parcel

**Door and Window Layout:** The door and window layouts in Göynük Houses vary depending on the plan scheme and the relationship of the house with the street. The examples whose doors that open directly into the garden (See Photograph 2, Photograph 3A, C, and E) and into the street (See Photograph 1D, Photograph 3B) are used together. In the examples entered via passing through the garden, there is a big door with two wings on the garden wall that faces the street. It is seen, in the houses where the ground floor is used to perform functions such as a hayloft and the living room is located above the street grade, that this floor includes a door with a single wing and small windows in order to provide access and light to the dark or service rooms (See Photograph 1A, Photograph 2A, 2B and Photograph 3D). The entrance gate that provides the access to the house and starts the relationship between the interior (private) and exterior (semi-public/public) represents the symbolic aspects of the buildings as well as its functions as the entrance and supervision. In addition to the examples of one-wing or two-wing doors covered with glass (See Photograph 2B, Photograph 3A, 2B and without glass (See Photograph 3E) in the houses where the entrance gate is directly opened to the street, there are also examples, though few, in which there are two separate doors on the street grade Photograph 3B).

The window layouts of the houses were shaped by the size and the function of the place. Apart from few examples whose ground floors are used as shops in Göynük houses (See Photograph 1B, C and E), it is seen that the facade on the street grade was left quite dead; however, the upper floors used as the living floors are opened to the street with many windows. It is also observed that care is not taken on the window layout and design in the service spaces, that they sometimes open to different points of the facade without considering the construction technique and the scale integrity and despite this, the windows that differ in terms of number, scale, design, and materials are grouped in two or three. The windows in different shapes depending on the facade layout of the house are generally rectangular. Wooden guillotine or wing, rectangular, and arched windows are used together in the facades of the house where symmetry is dominant. It is also seen in few examples that top windows, rarely seen in traditional Turkish houses, are used, and some of these windows are of stained glass. This might be attributed to the reflection of the effect of population mobility on the urban spatial structure (Photograph 4).



**Photograph 4.** Door and window layout in Göynük houses  
(Ç. B. DİKMEN-F. TORUK Archive)

- A. Hacıabdi District, Deveyolu Street, 137 Block, 14 Parcel
- B. Yenice District, Konakyeri Street, 29 Block, 1 Parcel
- C. Sofuali District, Kahyalar Street, 58 Block, 6 Parcel
- D. Cuma District, Ankara Avenue, 53 Block, 1 Parcel
- E. Hacıabdi District, Deveyolu Street, 138 Block, 8 Parcel

**Oriels:** The oriels, which play an important role in the facades of Turkish houses and provide the facade characteristic by determining the relationship of the living room with the street in addition to the aim of obtaining an appropriate use of space on the upper floor and extending the space, are important components of facades in Göynük houses [37].

It is seen that the oriels are generally oriented towards the landscape and the streets, while in few examples; they are oriented towards the garden. The oriels and balconies are the components that separate the lower and the upper floors, reflect the plan schemes, and add mobility to the facades by being formed in rectangular and triangular shapes in accordance with the position of the house. In some examples, the oriels and balconies serve as carriers and are supported by wooden and stone buttresses and brackets for decoration purposes (See Photograph 1C, D, and E, Photograph 3A, C, D, and E, Photograph 5C, D, and E) However, there are also examples of oriels and balconies without any buttress. The quality and the size of the buttresses vary depending on the depth of the oriels. The garret on the parcel that has wide facades into the street is seen to rise as the pinnacle floor. Decorations such as wooden railings and grills are found in few example houses (Photograph 1D).

On the facades of the upper floors in Göynük houses, where symmetry is dominant, in addition to the examples without a oriel (See Photograph 2B), with a oriel along the facade, (See Photograph 1B), with a oriel

on one side (See Photograph 2B), with a oriel on two sides (See Photograph 1D, 2A,3A and 4C), with a oriel in the middle (See Photograph 3C and 3D), and a oriel on the corner (See Photograph 3F), there are also other common examples with an open oriel (with a balcony) along the facade (See Photograph 1C and E), and with an open oriel in the middle and side (See Photograph 3A, 3E, and Photograph 4D). The examples on which the bottoms of the oriels are plastered and the wooden lath and bonding timbers composing the oriels are left out or covered with are seen together.

It is seen that the corners of the balcony in the facade examples with open oriels are supported by wooden columns on two sides. In addition to the main parameters in Göynük Houses that compose the facade layout such as doors, windows, balconies, oriels, and roofs, the corners articulated with wooden columns, molding with bonding timber, wooden jambs, arches, and decorative iron railings are the components that stress the facades (Photograph 5). The examples in which wooden columns rise up to the fringe grade along the upper floor or the columns discontinued below the fringe grade, and the corner wall was maintained as plastered can also be seen. The wooden jambs surrounding the windows on three sides are seen to be shaped in a flat, triangular brow, and circular way. In two- and three-story Göynük houses dated back to the late 19th century, there are widely-used examples which give place to wooden corner elements and wooden molding being placed horizontally and vertically, respectively, and the movements on the roof [17].



**Photograph 5.** Outbuilding layout in Göynük houses (Ç. B. DİKMEN-F. TORUK Archive)

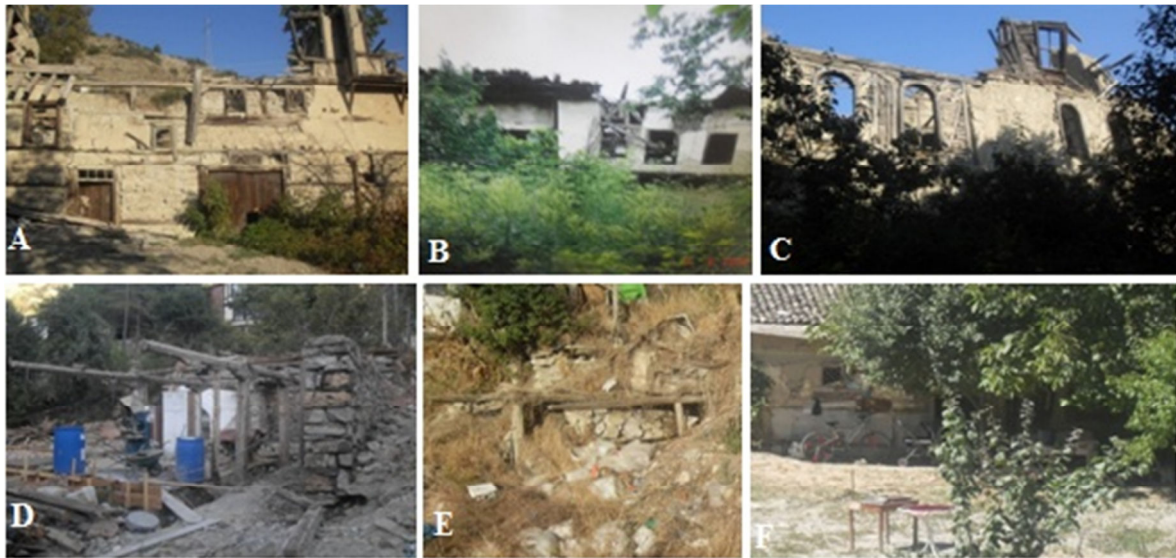
- A. Çeşme District, Değirmen Street, facade without outbuilding, 119 Block, 94 Parcel
- B. Yenice District, Konakyeri Street, closed outbuilding in the center 29 Block, 1 Parcel
- C. Yenice District, Çaykeneri Street, closed outbuilding in the center 12 Block, 8 Parcel
- D. Cuma District, Turanlar Street, outbuilding in the corner, 125 Block, 9-10 Parcels
- E. Sofuoğlu District Sarayönü Street. Outbuilding in the corner and on two sides, 58 Block, 23 Parcel

**Roof Layout:** Hipped roofs were the commonly used roofs in the detached houses, while gable roofs sloping towards the street and the garden were more common in the attached houses. Although there are few examples, gable roofs that are inclined towards neighboring parcels and compose a triangular pediment on the street facades are also found. The top of the oriels were covered with the hipped roofs that were stuck into the main roof or with the extension of the main roof to the oriels. Pantiles were used as the roof materials in Göynük houses, and roof eaves are generally not wide. In the early examples, (the beginning of the 19th century), the bottom of the eaves were left blank, while in the late examples (the end of the 19th century), the bottom of the eaves were covered with wooden materials. In addition to the examples where the roof eaves were formed in line with the plan of the upper floor seen as the living floor and the eaves over the oriels were reflected on the roof (See Photograph 3C, D, and E, Photograph 5C, D, and E), there are other examples of roofs where the eaves were located flat without reflecting the upper floor plan and the movements of the oriels (See Photograph 3F, Photograph 4C).

#### 2.4. Facade Analysis in Göynük Houses

In accordance with Göynük Development Plan, which has been in action since 1991 in Göynük and which includes Göynük Protection Development plan and the decisions of Ministry of Culture Ankara Cultural and Natural Heritage Protection District Board (14.05.1983 dated and A4373 numbered, 17.07.1987 dated and 3511 numbered, 11.05.1990 dated and 1222 numbered, and 11.07.2008 dated and 3334 numbered decisions) the Urban Protection Area border was determined, and 132 houses that can still stand today were registered as the ancient buildings based on the findings of the Ministry of Culture Ankara Cultural and Natural Heritage Protection District Board. Within the scope of this study that aimed at analyzing the physical and spatial structures of the traditional houses in Göynük, their relationship with the street as the public space, and the facade layout, the facades of the two- (16 houses) and three-story (15 houses) examples of houses selected among 132 houses that dated back to the end of the 19th century and that reflected the unique characteristics of Göynük houses were analyzed. Of the registered houses, the ones that were not protected in good condition or completely destroyed or whose registration was planned (Photograph 6) and the ones that are actively inhabited to perform different functions (See Photograph 2A, Photograph 4E and Photograph 5D) were excluded from the scope of the study.





**Photograph 6.** Examples of unprotected or destroyed houses  
(Ç. B. DİKMEN-F. TORUK Archive)

- A. Yenice District, Konak Yeri Street, 29 Block, 4 Parcel
- B. Cuma District, Dik Yol Street, 48 Block, 15 Parcel
- C. Yenice District, Konak Yeri Street, 29 Block, 7 Parcel
- D. Yenice District, Sarayönü Street, 28 Block, 3 Parcel
- E. Sofuali District, Konak yeri-Dik Street, 36 Block, 5 parcel
- F. Sofuali District, Beybahçe Main Street, Block 62, 2 Parcel

The example houses investigated in the study have been selected from the districts where unique traditional texture is present and largely preserved. Houses of the selected, 11 are within the border of Yenice, 12 of Cuma, 3 of Sofuali, 2 of Kepkebir, 2 of Hacıabdi, and 1 of Çeşme districts. The facades that were formed by the open and closed oriels developed based on the layout of the location and parcel of the houses, floor layout and entrances, door and window layouts were analyzed, and the relationship of the houses with the street were investigated in terms of the parameters.

12 houses have only 1 house single facade, 11 houses that have been examined have 3 facade, and 5 houses have 4 fronts are opened to the street of houses which were analyzed 31 houses in this study. 18 houses were discrete and 13 houses were built in the adjacent layout. Only 12 houses are given input the top and the bottom of the road from the 31 houses. 13 of the houses are example of garden house. But there is only one house example which entered directly from the garden and entered from the garden and the street. Whereas in the case of 29 houses have been achieved about the lane directly. 16 houses have 2 and 15 houses have 3 storeys of examined houses in the study. It is directly accessible from the street into 29 houses. The entrance doors are 15 houses are wooden double doors and 16 houses doors are wooden single of 31 houses which were analyzed in this study. Windows of the 5 houses are

grouped double and 9 houses windows are grouped three, while only one house facade are not grouped windows, and also windows of the 11 traditional houses are grouped as double and triple. It were seen that only 3 houses of the analyzed houses have changed window's measurement and failed window's originality. There are only one house examples in every group that have single and double or three grouped windows. 6 houses have wooden guillotine and 25 houses have wooden double wings. 25 houses have wooden rectangular windows and only 6 houses have arch windows. 5 houses have open oriels, 4 houses have open and closed oriels and 18 houses have closed oriels, while 4 houses have not oriels according to oriels organization. There are 8 houses have oriels at the middle of the facade, 5 houses have oriels at the single side (left or right) of facade, 5 houses have oriels double side (left and right) of facade, 4 houses have oriels along the facade, and 2 houses have oriels even have oriels double side (left and right) of facade and also middle of the facade along the facade. 3 houses have made oriels two facade and only one house have corner oriels. Through the data collected on these examples, it was aimed at analyzing traditional Göynük houses' location depending on the street, entrances (from the street/garden), facade layout, and the relationship of the house as the private space with the street as the public space, as depicted in Table 1.

Table 1. Facade Analysis in Göynük Houses











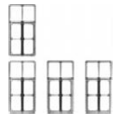
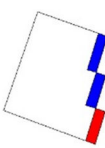
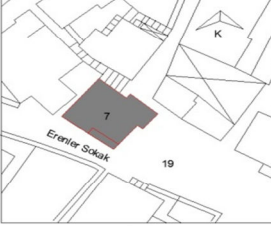


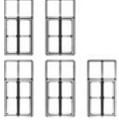
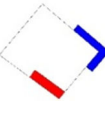
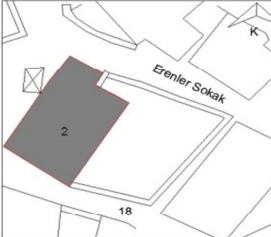


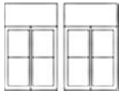
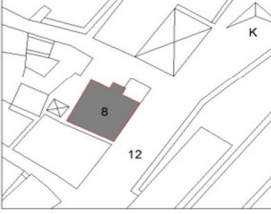



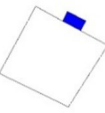



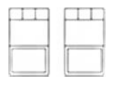
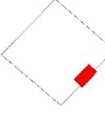
Site Plan Address Details, Year of Construction	Entrance		Photograph	Doors and windows		Oriels	
	S	B		Entrance Door	Windows	Open 	Closed 
 Yenice District, 19 Bl. 19 P.	X	X					
 Yenice District, 18 Bl. 19 P.	X						
<b>2-storey</b>  Yenice District, 19 Bl., 7 P.	X						
 Yenice District, 19 Bl. 2 P.	X					without a oriel	
 Yenice District 12 Bl. 6 P.1	X						
 Cuma District 51 Bl. 15 P.	X						

Table 1. Facade Analysis in Göynük Houses (Continued)

	<p>X</p>			
<p><b>Cuma District 167 Bl. 2 P.</b></p>				
	<p>X</p>			
<p><b>Cuma District 38 Bl. 3-4 P.</b></p>				
<p>2-storey</p>		<p>X</p>		
<p><b>Cuma District 50 Bl. 2 P.</b></p>				
	<p>X</p>		<p data-bbox="1267 1247 1362 1308" style="margin-left: 20px;">without a oriel</p>	
<p><b>Cuma District 50 Bl. 6 P.</b></p>				
	<p>X</p>			
<p><b>Cuma District 167 Bl. 13 P.</b></p>				
	<p>X</p>		<p data-bbox="1267 1827 1362 1888" style="margin-left: 20px;">without a oriel</p>	
<p><b>Çesme District 119 Bl. 4 P.</b></p>				

Table 1. Facade Analysis in Göynük Houses (Continued)

		X				without a oriel
		X				
2-storey		X				
		X				
		X				
3-storey		X				

Table 1. Facade Analysis in Göynük Houses (Continued)

	<p>X</p>			
	<p>X</p>			
	<p>X</p>			
<p>3-storey</p>		<p>X</p>		
		<p>X</p>		
		<p>X</p>		
<p>Cuma District 105 Bl. 11 P.</p>				

Table 1. Facade Analysis in Göynük Houses (Continued)

	<p>X</p>					
<p><b>Kepkebir District 94 Bl. 3 P.</b></p>	<p>X</p>					
<p><b>Kepkebir District 94 Bl. 8 P.</b></p>	<p>X</p>					
<p><b>Cuma District 48 Bl. 4 P.</b></p>	<p>X</p>					
<p>3-storey</p>	<p><b>Cuma District 48 Bl. 2 P.</b></p>	<p>X</p>				
<p><b>Hacıabdi District 138 Bl. 12 P.</b></p>	<p>X</p>					
<p><b>Yenice District 29 Bl. 13 P.</b></p>	<p>X</p>					
<p><b>Sofuoğlu District 58 Bl. 6 P.</b></p>						

### 3. DISCUSSION AND CONCLUSION

Göynük's physical and spatial structure has been shaped by social, economic, and physical disadvantages such as topography, limited transportation opportunities, difficulty in transportation, and intense emigration. The development plans prepared at different times to protect the historic city texture and to protect the structures composing this texture could not be used effectively enough. The low-level income of the users of the traditional houses in Göynük urban protection area, the attraction of the unearned income brought by the trade in recent years and the issues faced while enforcing the protection decisions accelerating the deterioration and disappearance of these historic buildings. The identification and the registration work which was conducted in the urban protection areas determined in Göynük Development Plan that has been in force since 1991 in Göynük and that includes Göynük Protection Development Plan has gained momentum with the protection efforts. Although the necessary precautions to be taken in order to protect Göynük houses have been discussed on various platforms, the changes in the social structure have made the physical changes inescapable; thus, a conscious approach of protecting the texture of the traditional houses in Göynük has been adopted since the 1970s. However, despite 132 houses registered and other monumental buildings, it is seen that migration to metropolitans has negative effects on these buildings. The fact that the families migrating to other cities rent their houses causes significant changes in the use of these buildings. In some cases, it is seen that the houses that cause difficulties in terms of use due to their size are rented to more than one family. Trying to live under difficult economic conditions in these houses, the tenant families cause irreversible serious damage to these houses. Apart from the damage caused by the users, another important issue is that the houses are abandoned and left to their fate. Due to several reasons such as the inability of the houses to adapt to the current conditions or the owners' abandoning these houses with the expectation of their demolition, the areas where the traditional texture inhabits have begun to turn into slums. Demolishing the houses in the city center and building parking lots in their parcels are also other reasons for the demolition of Göynük houses, in addition the unearned income obtained through the development plans and the demand for modern buildings. The process of this demolition takes place based on reasons such as the location of the historic urban texture, its relationship with the city as a whole, and the pressure of the development of the city.

In order to protect the traditional houses on a scale of a single structure and texture, it is necessary that development plans for the protection should be made or as in the example of Göynük, the outdated protection development plans should be renewed. Protecting and benefiting the historical environment in line with the needs of the society is believed to be the most important sign of the value assigned by the countries to their cultural and historical heritage as well as their past and in a sense the development level of the countries. The destruction of or damage to the historic environment is important in terms of the disappearance of cultural and

historical values as well as architectural and aesthetic concerns. The awareness of protecting the immovable concrete cultural elements composing the historic texture in their original condition and in a healthy manner stresses the analysis, documentation, and preservation of the physical and spatial characteristics of these buildings. Therefore, preserving the traditional texture is possible through preparing their inventories following the documentation and registration work conducted adhering to the development plan on the protection of the buildings that compose the texture. Raising the awareness of the people by the local governments about the work such as the protection development plan, restoration, and documentation to be conducted on the historic texture and providing information to them about the work to be done and the possible results are an unavoidable reality for the survival of our historic heritage. It is necessary that restoration and repairs to be done on the buildings that need restoring should be done adhering to their original form in their historic texture in Göynük with the contribution of visual and written documents, expert views and checks, that urgent repairs should be made adhering to the protection development plans, and that the materials to be used should be appropriate to the construction technique and quality of the house. Great care should be paid to whether the new buildings located in the texture where historic buildings are located in the protection development plan are appropriate to the number of the floors, gabarites, facade layouts, formats and sizes of the spacing such as windows, doors, and balconies, roof layouts, and locations on the streets, as well as the materials and the techniques of the historic buildings.

The facades of the buildings are the surfaces that are formed by internal and external dynamics that separate the house as the interior space from the street as the exterior space, and in this sense, form the border. In this context, it can be stated that building facades are elements that provide information about the date of construction, construction techniques, plan schemes and materials, provide the relationship of the whole building with the users, and compose the outer shell that is an important component of architectural aesthetics. The facades of the traditional Göynük houses have been shaped by functions, the technology of the period in which they were constructed, the cultural accumulation that have been transferred for centuries and the aesthetics. In this study, where it was aimed at suggestion solutions for the protection of Göynük houses that particularly faced the danger of deterioration and demolition, the registered houses located in the urban protected area and dated back to the end of the 19th century were photographed and documented on-site. During the study, the physical and spatial structure of the houses, their relationship with the street as the public house, and facade layouts were analyzed; the relationship of the facades of the buildings acting as the inter-section between the house as the private space and the street as the public/semi/public space with the street were analyzed through the elements on the surface of the facades. Moreover, the architectural language of the houses were tried to be analyzed through the streets and facades.

According to the registration documents prepared for the decisions of registration by Ministry of Culture Ankara Cultural and Natural Heritage Protection District Board and the analyses done on-site, it is stressed that 12% of the houses in Göynük were restored, 72% need restoring, and 16%, which were demolished, should be re-built. Based on the data collected through on-site analysis on facades, it can be stated that based on the preservation level of Göynük houses, 60% of the houses are in good condition, 10% are in moderate condition, while 30% are in bad condition. In order to increase the preserved level of the houses, the houses should be restored taking into consideration their relationship with the street, the materials used, and the construction technique as well as the parameters that determine the facade layout of the buildings such as location and parcel layout, plan schemes, floor layout and entrances, door and window layout, oriels, and roof layout. Moreover, new construction that will compose a new texture against this historic texture should be carried out outside the protected area.

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