

AN INVESTIGATION INTO THE ARCHITECTURE AND RESTORATION OF THE DİVRİĞİ MÜHÜRZADE HOUSE IN ANATOLIA

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***Abstract.** Divriği is a small settlement in Anatolia that nestles in the Çaltı River Valley. The town originally formed around the Divriği Fortress dating to the beginning of the 13th century and the Great Mosque and Hospital of Divriği, but later spread out into the mountain-ringed valley. The town is characterized by traditional houses set in gardens ringed with high walls. These walls form the outlines to the winding narrow roads that are lined on either side with water channels constructed to service these gardens. The settlement is distinguished by detached, one or two story timber-framed houses topped by clay roofs situated within these large gardens. The Ottoman period houses continue to reflect some of the spaces related to the Medieval Seljuk house culture. These features, also seen in the vicinity, include such spaces as a divanhane, toyhane, and nimseki.*

The Mühürdarzade House is one of the original examples of Divriği houses that have remained to this day. It was constructed in the mid-19th century. The ground floor of the flat, mud-roofed house was built with adobe brick, while the upper floor reflects the himiş technique (load-bearing timber beams with gaps packed with adobe). This construction technique secures the house from such disasters as earthquakes and also protects it from adverse climatic conditions. As Divriği is located in a climatic region that experiences both hot summers and cold winters, the wood, mud and adobe materials serve to keep the house cool in summer and warm in winter. The use of inexpensive soil as a building material is not only a matter of economics, the flat earthen roof of the house also provides a space where agricultural products can be worked and dried. In the 20th century the original flat mud roof of the house was replaced with a hipped wooden roof. Finally, in 2011, the building went through extensive repairs. In this study, the architectural configuration of the Mühürdarzade House, which lost some of its original features during the repairs, its condition before and after the extensive repairs, and the problems regarding protecting the house will be examined, and, thus, the Mühürdarzade House will be used as a model to determine the general properties of all of the traditional Divriği houses.

1 INTRODUCTION

Located in the eastern half of Anatolia and attached to the province of Sivas, the small city of Divriği nestles in the heart of the Çaltı River Valley and is ringed by mountains on all sides. Beginning with the 11th century AD, the town came under first Seljuk and then later Mameluke and Ottoman dominion. Influenced by both Turkish and Islamic cultures, the city developed a unique architectural style. Divriği houses employ unique spaces and units that set them apart from other Anatolian houses, such as the *toyhane* (spacious gathering room), *nimseki* (space allotted to young men where they could listen in on conversations), *divanhane* (semi-open hall), *kahve ocağı* (special hearth for the making of Turkish coffee), *harem* (female and children quarters), and *selamlık* (male quarters). Because its geographical features kept the city fairly isolated up until the beginning of the 20th century, it succeeded in large part in sustaining both its traditional fabric and its original home styles. Today Divriği has almost 200 extant traditional houses, 120 of which are being preserved as cultural assets [1]. The new millennium ushered in with it a heightened awareness of the importance of these homes and certain characteristic restoration efforts have been carried out. The Mühürdarzade Home ranks as one of these traditional homes and was repaired during 2011-2013.

2 HISTORY OF SETTLEMENT

First settled by the Hittites, a culture that reigned over much of Anatolia from 1600 – 1180 BC, some documents used the Greek word *Apbrike* as the name for the city, while later Byzantine documents used a derivative: *Tephrike*. Arab geographers called the region *El-abrik* / the source of the Euphrates. The Turks later altered this name from its root of *El-abrik* to *Divrik* or *Yeşil (Green) Divriği* [2]. During the Roman period, the city served the empire with its secure fortress of strategic importance. Beginning in the 7th century AD, the city was used as one of the border outposts that buffered the Eastern Roman Empire from the Persians. In the 11th century the town came under Turkish dominion when it fell under the rule of the Turkish Mengüjekid Principality. Despite the fact that Divriği was geographically distant from the main trade routes, the city became prosperous thanks to the demand for the iron ore found so abundantly in its soil, a resource that was extremely important in manufacturing trades. Upon the dissolution of the Turkish principalities, the city came first under Mameluke dominion and then was absorbed by the Ottomans into their empire at the beginning of the 16th century (1516) [3]. During the Ottoman period the city served as an important *sanjak* and lodging site connected to the Ottoman's Sivas Beylik. By the 17th century, however, Anatolia found its security increasingly weakened under the threat of various outlaw gangs. In 1850 the city and its district began serving as a *Kaymakamlık* (a district governate), with a mix of Turkish and Armenian populations, and some few Greek speakers [4]. In 1937, during the early years of the Turkish Republic, Erzurum-Sivas railroad line was laid through the city and the district's iron mines began again to be worked [5]. Today Divriği serves as a county seat attached to the Sivas Province.

3 GENERAL CHARACTERISTICS OF THE SETTLEMENT

Divriği lies parallel to the north-south slopes of the mountains that circle the Çaltı River, a waterway that is a tributary of the Euphrates. The Ab-1 Çimen Stream, itself a branch of the Çaltı River, flows through the town. The city's first settlement was clustered around the remains of the Divriği Fortress (1224) that lies to the northeast (Fig.1,2). The Grand Mosque and Darüşşifa (hospital) (1228) are built on a slope below the fortress (Fig.3). In time the

original settlements built around the fortress and Grand Mosque began to spread to the south-west and began encroaching into the garden plots and vineyards to the west.



Figure 1: The map of Anatolia and Sivas-Divriği (red part).



Figure 2: Divriği Castle in 1930 [6]



Figure 2: Divriği Mosque and Hospital 2013.



Figure 4: Winding streets, water ducts



Figure 5: *Hımış* house in Divriği.



Figure 6: *Divanhane*.

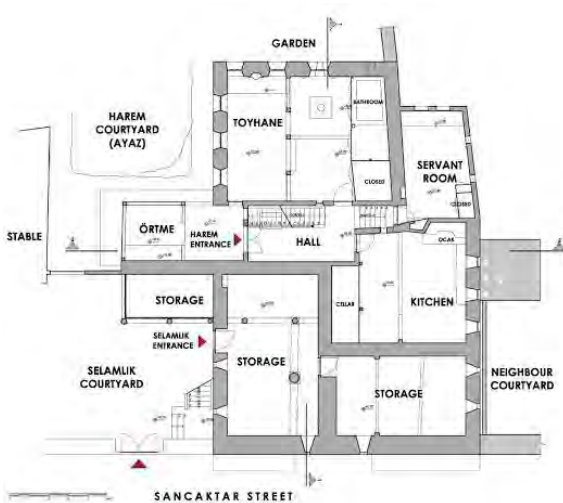
Today, the city's major thoroughfare, Atatürk Boulevard, divides the city into two halves. The narrow winding streets that form an organic are connected this avenue. The contours of the streets are formed by the high garden walls that circle the traditional homes and their garden plots. Water is channeled to the gardens via ducts located at the sides of the streets (Fig.4). The architectural composition unique to Divriği is made up of large garden plots circling detached, two story homes built in the *hımış* technique, with wooden beams whose gaps have been packed with adobe brick (Fig.5). Most of these traditional homes have two disparate quarters, each with its own courtyard, one reserved for the women and children of the home (the *harem*) and one reserved for the men and their activities (the *selamlık*). The facades of the extant homes, primarily dating from the 19th century, are for the most part modestly plain and unadorned, while the interiors of the home are highly decorated. The features that are especially unique to these homes “*divanhane, toyhane, and nimseki*” actually have their roots in spaces seen in Medieval Seljuk house culture [7] (Fig.6-8). The plan of the Divriği houses has been influenced both by cultural continuity and variety, and also by the fact that the city lies along an earthquake fault and is subject to extremes of weather. The ground floors and body walls of the Divriği house are made of adobe brick, while the second stories are timber-framed, a form of construction that provides safety in event of earthquakes. Soil and wood constitute the primary building materials of the house. The load bearing beams are generally taken from strong hard wood trees, like juniper or oak, while the ceilings, cupboards and doors are made of pine. The soil is used in the making of the adobe bricks, as a binding material, in the making of exterior and interior plasters, as a floor coating, and as a roofing material. In the interior of the homes, plaster is used for the hearth/fireplace, the flower boxes, and as the filler in the upper windows.

Last of all, the thick adobe walls, the adobe packed timber framing and the flat soil roof combine to protect the house against the climate (Fig.9). The use of inexpensive soil as a building material is not only a matter of economics, the flat soil roof of the house also provides a space where agricultural products can be worked and dried.

Figure 7: *Toyhane*.Figure 8: *Summer room with nimseki*.Figure 9: *Typical house*.

4 ARCHITECTURAL FEATURES OF THE MÜHÜRDAZADE HOUSE

Built in the mid-nineteenth century by the Mühürzade Family¹, the Mühürdarzade House is located on Sancaktar Street in the Hacı Osman Mescidi Neighborhood of Divriği. The house was used as a hospital during the 1915-1925 First World War and Independence War period known to the Turks as the “mobilization” period. Over time, the ownership of the home changed hands, the house was again used as a residence, and underwent a repair process in which the flat roof was replaced with a hipped roof. In 1989 the house was officially registered as “a cultural property to be conserved” [8]. In 2004 the house was purchased and brought under eminent domain by the Regional Governate of Divriği as part of the “Project to Bring Divriği's Cultural Assets to Public Social Life.

Figure 10: *Ground floor plan (by M.Keskin)*.Figure 12: *Upper floor plan (by M. Keskin)*.

¹Naci Demirağ (1886 – 1957), a Mühürdarzade descendent, was notable for being Turkey's first manufacturer of cigarette paper, the founder of two airplane factories and the first to build a railroad line [9].

4.1 Features of the Plan

The house, and its high walls, is situated on the side of Sancaktar Street (Fig.10,11). The houses lying to its west, north, and south are all registered cultural assets, while a large garden plot lies to its east. The area of the house reserved for males, the *selamlık*, faces the street to the west, while the female section of the house “*harem*” overlooks the garden to the south of the house proper. The northern end of the *selamlık* maintains a relationship with the street with a courtyard whose gate opens onto the street. The *harem* courtyard is isolated from the male courtyard by using a stable, hayloft, and depot area to separate the areas (Fig.13-14). Two fountains, one located on the western wall of the *selamlık* courtyard and one in its very center, demonstrate the wealth and the power of the owner of the house. The gates leading from the street into the male courtyard and the one leading from this courtyard through the garden and thus into the women's courtyard are made of wood.



Figure 12: Sancaktar Street, 2005.



Figure 13, 14: *Selamlık* and *harem* courtyards, 2005 (by M. Keskin).



The *selamlık* and *harem* sections of the house are each entered separately through their own fronting courtyards. Under the *selamlık* rooms there are of two storage areas at the side of the street, while the *harem* ground floor includes a roofed entry terrace (*örtme*), *toyhane*², kitchen, hall and a servant's room extension (Fig.15-18). A wooden staircase leads from the ground floor hall to the upper level of the women's quarters. The *toyhane* is a large salon in which the family gathers for lounging and for meals in the cold winter months, and which is also used as a gathering place for weddings and other receptions, funeral rituals, and for feasts of various kinds.

The upper level living quarters of both entities are also gender separated (Fig.12). Each room is entered from its own *sofa* (hall). The two upper levels are connected to each other via a corridor. The *sofas* of each section are positioned adjacent to one another, in the middle part of the house. The upper level of the *selamlık* consists of a wooden staircase that leads from the male quarter courtyard to a semi- open *sofa* on the upper floor (Fig.19). This space, called the *divanhane*, is used in warm weather conditions as a lounge or place for conversations. This space leads to a semi-hall (*aralık*), which fronts the rooms of the men's section and also leads to the *harem* quarters. The rooms of the men's quarters include three rooms facing the

² Used as a winter room, the *toyhane* is made up of three separate sections. A slightly lower level, stone-floored section at the room's entrance / *aşağıseki* is reserved for the removing of footwear. One or two steps move up from this space to a wood-floored sitting space called the *kilimüstü* (carpeted area). One more step up leads from this sitting area to the *kürsübaşı*. The center of this square space is devoted to a low wooden table that has been built over a kind of crockery brazier buried further underneath this table. In the winter, burning embers are placed in this brazier and then buried in ashes. A large comforter is used to cover the table and then family members or guests sit on cushions around this table, drawing the comforter over their legs and laps to enjoy the warmth emanating from the brazier [10].

street, a coffee preparation room³ on the south facing side of the quarters (Fig.20), and a highly decorated room to the north and that is used as a guest room (*small summer room*) (Fig.21,22). The upper floor of the *harem* consists of three rooms that overlook the garden, the *sofa*, and the corridor leading to the male quarters. Also, the south room in the women's quarters has been arranged as a guest/summer room (*yazlık oda*)⁴ (Fig.23).

Figure 15: *Toyhane*.Figure 16: *Toyhane*, 2011.

Figure 17: Kitchen, 2011.

Figure 18: *Harem hall*, 2011.Figure 19: *Divanhane*.

Figure 20: Coffee room.

Figure 21, 22: *Small summer room* , 2011.Figure 23: *Summer room*, 2011.

³ The coffee room is a small room housing a sitting bench (*sedir*), a hearth for cooking the coffee, and cupboards to store supplies and crockery.

⁴ The summer room is designated as the “head/main” guest room. The various elements of the room—the ceiling, flower pots, hearth, and top window- are all highly decorated. The summer room generally has three spaces: a stone-floored space (*aşağıseki*) at the entry door dedicated to the removal of footwear, a wood-floored sitting space called the *kilimüstü* (carpeted area) that is one step up from that entry point, and, adjacent to this area, a *nimseki*, a space separated from the this seating area by wooden poles, railings, and one step up. This space is reserved for youths who are allowed to sit or rest here as they listen to the conversations of their elders in the sitting area below. A space reserved for washing/bathing (*gusulhane*) is hidden away within a cupboard built into the narrow wall [10].

4.2 Construction System

The ground floor of the two-story house is made of adobe brick and stone walls. The upper floor is timber-framed and packed with adobe (Fig.24- 27). When initially constructed, the house had a flat soil-packed roof, but in the early 20th century this roof was topped by a wooden hipped roof, thus providing an attic room. While the southwestern wall of the ground floor consists of a 93 cm wide stone wall construction, the remaining 80-85 cm wide walls are constructed of adobe brick. The dividing walls are 25 cm wide timber-framed walls packed with adobe. In some places, the ceiling joists are supported by thick juniper pillars. The ground floor adobe brick walls rest on a bed of stone foundations and extend a bit from the ground level, while continuing up to the floor of the upper story. The adobe brick is encircled with wooden pillars both above and below the windows. The upper floor walls are 25 cm thick and built of framed timber packed with adobe. It is only on the southeast side of the home that the body walls consist entirely of adobe brick that extends up to the roof. All of the walls have been plastered with muddy mortar and then this mortar has been coated both on the interior and the exterior with a fine layer of gypsum plaster (Fig.12, 13). The mud, which forms the main ingredient of the adobe brick and mortar, has been strengthened with the addition of wadding and straw, which also prevent cracking. Additives such as gypsum, wadding, and straw are added to the mud dough to increase its strength and according to how it will be utilized. This soil is thus prepared according to certain set rules and allowed to set for a time after being fermented. When ready, the adobe is poured into 15x25x50 and 15x50x50 brick molds. The adobe is then thoroughly dried under the sun before being used. The floors and ceilings are constructed by nailing wood flooring planks over wood support struts (Fig.28). To construct the flat roof of the structure, the top of the close-interval wooden struts that form the upper floor ceiling are covered with laths. These laths are next covered with a straw-free layer of mud (Fig.29). This layer is then covered with a 20-30 cm thick layer of packed soil, thus forming a material that provides insulation against both hot and cold temperatures.



Figure 24: Eastern facade, 2011.



Figure 25: Street façade, 2011.



Figure 26: Adobe filling



Figure 27: Timber frame, adobe filling



Figure 28: Decorated ceiling.



Figure 29: Flat roof.

4.3 Facade features

All of the exterior surfaces of the home have been covered with a fine coating of gypsum plaster over the first heavy coat of mud mortar. Other than the eastern facade (*harem*), all the facades are closed to the outside on the ground floor level. And, excepting the semi-circular arched sashed windows of the *divanhane* and northeast room (in the middle window), other windows in the house are rectangular and sashed. The windows in the guest room of the *selamlık* and the windows in the pavilion (*kiosk*) room of the *harem* have wooden shutters and concave bow upper jambs. The courtyard gates, along with the entry gate to the men's quarters, are battened doors, while the door leading to the *harem* and the entry door to the upper level of the *selamlık* are both panel doors.

The street facade and the northern facade of the *selamlık* have been given the most significance (Fig.30-31). The corner rooms on the street facade have been extended so that they project over the street. The bottom of the projection on the left side of this facade has been covered with a wooden arched casing, while the projection on the right has not been encased.

Due to the single story structures that separate the men's quarters from the women's, the northern facade is not totally accessible to viewing. Some of the important elements of this facade include the building-hugging staircase leading from the courtyard to the *divanhane*, the *divanhane* and the masonry and wooden warehouse located under it, and the pavilion (*kiosk*) room and the entry terrace *örtme* framed by wooden beams that leads to the entry of the women's quarters. Because the entire eastern facade of the building faces the garden it has an outward bearing stance (fig.32). When compared to the other facades, the southern facing facade is rather plain and closed to the outside.

At the time of its construction the facades of the building were completed by a flat roof, while today the facades are covered with a hipped roof with broad eaves. Waterproofed with a combination of Turkish *alaturka* and Marseille type tiles, along with sheet metal, the roof was marked by differences in eave widths.



Figure 30: Street facade



Figure 31: Northern facade



Figure 32: Eastern (*Harem*) facade , 2005.

5 RESTORATION STAGE

Almost all of the preservation efforts expended in Divriği during the years of the Republic have been directed towards the city's Grand Mosque and Hospital. It was only in 2001 that the need to preserve the city's traditional house architecture was recognized and it was at this time that a civil society organization, the ÇEKÜL Foundation, began its efforts to this end. With the significant contributions of the Sivas provincial and Divriği district governate authorities,

eminent domain procedures were utilized to purchase in the public's name a selection of some of the more important traditional houses of Divriği, including the Mühürdarzade House.

While the plans of the Mühürdarzade House were drawn up, a restoration project designed, and approval signed off on in 2005⁵, it was only in 2011-2013 that the restoration work was actualized. The costs for the restoration were assumed by the special administration office of the Province of Sivas. The original plan called for the utilization of this house, along with three other homes, as a boutique hotel.

The analytic architectural survey made of the house included some elements that posed certain structural difficulties: the adobe brick wall located on the corner of the street, the entry staircase into the *selamlık* (for men), the coffee room's flooring and its adobe brick hearth wall, the kitchen hearth and its storage cupboard, the terrace fronting the entry to the *harem* (for woman), the floors of the summer room and the kiosk room, and the seating benches (*sedir*) in the kiosk room and *divanhane*. In places the gypsum plaster and the mud mortar covering the outer facades of the building had broken off completely and/or cracked. Some of the window shutters and joinery, along with the floor and corner moldings were showing signs of rot. However, as shown by these analyzes carried out in 2005, there were no major problems noted in the structural condition of the building itself.

While the restoration project plan suggested that the structure be used as a hotel, it also specified that the building be restored while preserving all of the original features and building materials of the home. It was decided that the wet areas required for the hotel were to be built in the western facing spaces on the ground floor level, doing so with the aim of preserving the original and complete features of the upper level rooms and the *toyhane*.

During the actual restoration work, for some unknown reason, the interior and exterior plasters were removed and the out-buildings that served to divide the courtyards of the house into two discrete spaces were torn down. After the plaster was removed, the building was left exposed for some time to the elements, causing the adobe brick packing to erode in some places and for the timber to degrade in others. While the restoration work did advance efforts to preserve the original architectural features of the house, the work was carried out in a careless and uninformed manner (Fig.33-49). Some examples of this include how the adobe brick courtyard wall facing the street was completely torn down and replaced with a new wall made of stone and cement and how the hipped roofing over the courtyard door was transposed into a gabled roof (Fig.33, 34). The area under the guest room projection that extends over the street was restored, but planks narrower than the originals were used. The wooden shutters are not the same as the originals (Fig. 35-36). In the restoration of the facade it was seen, however, that the adobe packing in the timber framing was completed, the mud mortar and gypsum plaster were reapplied, and the roof was repaired and covered with Turkish style tiles (Fig.37-39). The original details of the *divanhane*, *örtme* and staircase overhang railings were preserved, but in inadequate numbers (Fig.40-43). In the *toyhane*, the railings separating the seating "carpeted" area from the floor brazier area / *kürsübaşı* were omitted, as was the shelf in the entryway /*sekialtı* (Fig.44, 45). The floor planks in the hearth area were also laid in the wrong, opposite direction (Fig. 16,46), and – despite the fact that they had remained intact – the wood pillars were replaced by pillars that did not resemble the originals. The upper windows in the servant's room were replaced with those that were larger than the originals (Fig.47,48). The original features of the overhead windows in the *nimsekili* space in the small

⁵ The detailed drawing and restoration project plan for the Mühürdarzade House was carried out for the ÇEKÜL foundation by Master Architect and Restorer Metin Keskin; however, the actual restoration work was carried out -- without supervision by the project owners -- by local carpenters and under the control of inspectors from the Sivas Provincial Office.

summer room were not sustained (Fig.49-51), and the stone sink in the coffee room was eliminated (Fig. 20,52). Because no decisions have as yet been made as to how the building will be utilized, the building is not currently being used.



Figures 33-36: Northern and western (street) facades, before restoration and after restoration.



Figures 37, 38: Street facade, 2013.

Figure 39: Eastern facade, 2013.



Figure 40, 41: *Divanhane* in 2005 and 2013.

Figure 42, 43: Entrance terrace / *örtme* in 2005 and 2013.



Figure 44: *Toyhane, sekialtı* 2005.

Figure 45, 46: *Toyhane and kürsübaşı* after restoration, 2013.



Figure 47, 48: Servant room in 2005 and 2013.



Figure 49: *Small summer room*, 2011.



Figure: 50, 51: Upper window (2011) and small summer room, 2013.



Figure 52: Coffee room, in 2013.

6 EVALUATION AND CONCLUSIONS

The year 2000 saw an elevation in the standards being applied in Turkish restoration efforts. The allotting of a share of real estate taxes to immovable cultural assets has at least partially solved problems related to financing such projects. Experts in restoration fields have been trained and these individuals have begun to restore Turkey's monuments. These restoration efforts are also being directed by scientific committees and are being carried out under supervision. Despite this, in areas distant from Turkey's major cities, such efforts often do not accord with preservation criteria; the work is being rushed by pressure applied by state and local authorities; and the repair work is not being sufficiently monitored or inspected.

Up until the year 2000, restoration efforts in Divriği, a small city in Anatolia that has largely succeeded in preserving its traditional identity, were primarily directed towards the preservation of its most important cultural heritage, the Divriği Grand Mosque and Hospital Compound that has been included on the World Cultural Heritage list. Because an awareness of the importance of the city's traditional homes had not been recognized, efforts to preserve these structures had not been undertaken. Despite this lack of concern, the combination of the city's isolated and hard-to-reach location, its constancy in population figures, the continuation of its traditional life and manufacturing traditions, and the low demand for new housing allowed the city to – for the most part – preserve its supply of traditional homes. It was a social society organization called ÇEKÜL (The foundation for the preservation and promotion of the environment and cultural heritage) that first recognized the importance and the values inherent in Turkey's stock of traditional homes, and in 2001 this foundation began efforts directed at Divriği. The foundation first succeeded in bringing together both individual and institutional representatives from public, local, civil, and private organizations. Next some of the city's traditional homes, including the Mühürdarzade home, were purchased by the Divriği

Governate through eminent domain processes and the structures were next restored by the Sivas Provincial Special Administration Office.

One of the biggest mistakes made in the repair of the Mühürdarzade home was the elimination of the out-buildings that had served to separate the *selamlık* and *harem* courtyards, thus destroying the sense of concealment between these two quarters. The other important mistake is related to fact that those carrying out the work preferred, for the most part, to “rebuild” rather than “restore,” with the consequence that many of the original features of the home were irrevocably lost. Another issue is related to the fact that the house was left unprotected for a protracted period of time after its exterior plaster had been stripped. The success of the restoration work was also negatively affected by a number of other factors: the failures both to apply many of the decisions included in the Restoration Design Project and to oversee and inspect the project architect's applications, the misconception held by those carrying out the work that “repair” is equivalent to “renewal”, and that as of yet no decision has been made as to the building's utilization. Despite all of these negative aspects, the fact that the house was saved from the fate of disappearing altogether is positive. Also, when we consider the possibility that the building could have been completely torn down and replaced, and its original spatial features, construction system, and workmanship utterly destroyed, we are pleased by the fact that the repair of the Mühürdarzade house was carried out in an organized manner and that its facade features and construction system were for the most part preserved. To conclude, it is up to us to learn a lesson from the mistakes made in this restoration and to ensure that the criteria of originality are not ignored in the repair of Divriği's other traditional homes.

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