

Poem to celebrate the seamless synergy of stone and timber: Ormana - a village located in the Taurus within southern Anatolia

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Abstract

This article focuses on the design principles of the houses of Ormana; a village located in the Taurus within southern Anatolia, Turkey—including their dual architectural identity and construction details. Ormana, with its high potential of creating harmony between space and environment, is a sample of a “geomorphic” settlement. It is argued that Ormana houses owe their aesthetics to the rational and functional conduct underlying the use of timber and stone to fulfil their natural needs. Ormana Houses, with their layered and rich structure underpinning the social and physical integration have the potential to inspire modern designs. The paper posits that settlements like Ormana and the buildings in them might be guiding sources for creating new environmental friendly environments inclined towards using regenerative materials that increases building resilience.

Keywords: Ormana house, design principles, construction details, vernacular architecture, dual composition

Introduction

Contributing to the field of Architecture with several case studies and publications on Vernacular Architecture, architectural historian and photographer Reha Günay, with his recent publication entitled “Ormana- Toroslarda Bir Köy”¹, extensively illustrates cultural and natural values of Ormana; a village located on the Taurus Mountains in the south of Asia Minor. The book on Ormana covers comprehensive observations, photographs, graphics, research and more than hundred surveys having been conducted during workshops, several visits, and collaborative and individual studies since early 70s. This article, based on Günay’s studies, aims at conveying and underscoring exceptional and hidden design qualities of the houses in the village in question, which is surprisingly based on modernist design principles. It focuses on the designs of the Ormana House, and the nucleus of the environment, from their dual architectural identity to construction details.

Ormana, with its high potential of creating harmony between space and environment is a unique “geomorphic” settlement. The poem of human shelter is reflected in the settlement and its individual elements, including its worked stone, ovens, shelves and cabinets. These houses have not been built to be “beautiful” or to allow their owners to make a profit. It can be argued that these houses owe their aesthetics to the rational and functional conduct underlying the use of timber and stone to fulfil their natural needs. In other words, Ormana, with its spaces that are shaped not as a product by people but through their creation by relating to its surroundings—namely through the spaces shaped by practical social activities², appears as a “beautiful” sample. As usual, geography has paved the way for originality³.



Fig. 1. An aerial photograph of Ormana.

Source: Günay, 2017.

This paper presents the Turkish house through an investigation on the architectural, spatial and social relationships that exist in houses in Ormana Village. This entails understanding the architectural composition of the houses (materiality), enumerating the different spatial configurations and their associated *depth*, variance in functional space progressions into the houses, architectural relationships of the entrances porches and degree of openness and closeness of the storage facilities relative to the exterior environment. The objective of the study is to introduce a new reading possibility that will aid in rethinking vernacular architecture peculiar to Anatolia instead of creating a definitive typological scheme and architectural/structural character of the Turkish house. The study uses data from Günay's extensive study of the area.

The first part of the paper explains the place-making patterns of the site including the geographical traits, social fabric and daily life within the village. The second part covers the architectural characteristics of the houses in Ormana regarding the definition of the main spaces, organization, structure of the Ormana House and ornamentation. The final section discusses and interprets the existing material and the consequences of the recently added fabric to the village and the development of the settlement.

The works of Sedat Hakkı Eldem, which has categorised the plan types of houses located in Anatolia or Rumelia belonging to the Ottoman Era from the 17th to the 20th century, are some of the key references in related studies. Various terms are used within the literature to describe the local architecture of the house. Eldem, Küçükerman, Yürekli and Yürekli and Bertam choose 'Turkish House' 'as a generic term embracing various types of houses spread over the extensive cultural domain of Ottoman Empire'⁴⁻⁸. On the other hand, Kuban uses the term the 'Turkish House with *hayat*—a hall'⁹ to address a peridoc characteristic; whereas Ireland and Bechhoefer, Sözen and Erüzun, and Bammer chooses the term the 'Ottoman House'¹⁰⁻¹¹ and 'Antolian (Vernacular) House'¹² respectively to identify regional differences. These various terms imply the same content with certain nuances.

Sedad Hakki Eldem, whose typological classifications of the Turkish House are based on the schemes of houses in or near Istanbul has confined the term 'Turkish House' to a house type

that has emerged within the boundaries of the old Ottoman Empire as aforementioned. Eldem, who initially coined the terms ‘Ottoman House’ and ‘Turkish-Ottoman House’, has schematised the plan types from the simplest to the most complex. He emphasized that the plan of a house reflects its economic and social conditions⁴. On the other hand, Yürekli and Yürekli argue that Eldem's schemes represented ‘high style’ houses with traditional inspirations rather than historic traditional Turkish houses⁶. However, despite this criticism, it is important to note that the widespread documentation of Turkish houses is founded upon Eldem studies where he identified the proliferation of the Istanbul typologies to other parts of Turkey¹³.

In this study, the main spaces, organizational and structural organizations within various configurations, variations on organizational scheme, and functional and formal configurations of *ayazlık*—a typical element—and some anomalies within Ormana houses, which are based on the transformation of an explicit typical and semi-typical plan types are schematised and discussed. The main concern is neither the dimension of individual spaces nor their architectural or design traits but the hierarchical and functional relationship that exists between the spaces in Ormana houses.

Place and Social Fabric:

Ormana, a mountain village is located in the highlands of Antalya, standing in front of the silhouette of Karadağ, an extension of the Taurus Mountains at 1750m height. It has a mix of Mediterranean and terrestrial climates. Summers are dry (max. 39.5°C), and winters are cold and rainy (min. -14°C). The village that sits on a plain between vineyards and fields near Erymna antique city remnants has geomorphic characteristics similar to many local architecture. Its meandering streets and its houses some of which overflow to the street as well as its garden walls, represent a unified fabric generated by the coupling of two natural materials: stone and timber. The agricultural land of the village, which has a landscape suitable for only vineyards and orcharding, is the Eynif Meadow within 10km. While there are various types of pine, cedar, juniper and oak trees in the mountain, the lowland has grain farming fields. In the past, water mills used to be located on one of the creeks of Manavgat River nearby the village³. Although the village's establishment date is unknown, the naming of Ormana is thought to be due to its phonetic similarity to the nearby ancient city of Ermyna¹. According to 2009 census, Ormana had 768 inhabitants, most of whom were elderly. The population of the village decreased to 562 (Male 270 / Female 292) by 2016 (Fig. 2).

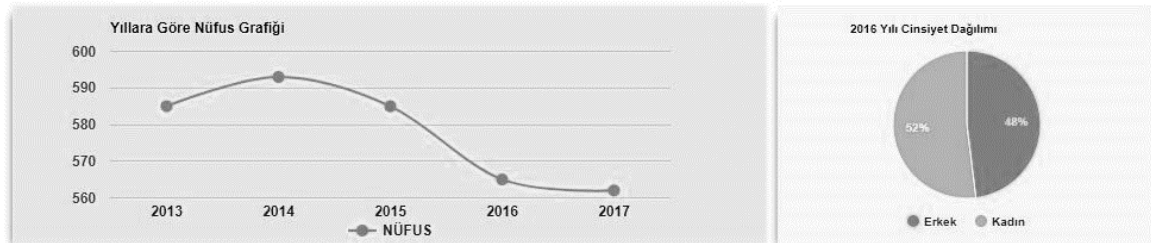


Fig. 2: Decrease in Ormana's population 2013-2016 and male (Erkek) vs female (Kadın) percentages in 2016. (<http://www.nufusune.com/180675-antalyaibradi-ormana-mahallesi-nufusu>)

Based on verbal information, emigration from Ormana to İstanbul, which spans across 400-500 years, is of utmost significance for the social, economic and spatial history of the village due to the fact that the immigrants have sustained their connections with the village and have brought their earned wealth back to the village for maintaining their houses and their ties with their community/and hometown in the village. While the village had 450 houses and 800 inhabitants in the seventies, its population has decreased during the following years due to migrations. The immigrants contributed to the economy of the village mainly by selling dried fruit/nuts in İstanbul. However, the main source of income for the villagers was stockbreeding and winegrowing.¹

Women play a significant role in the daily life of the village. As seen in Figure 3, women are visible in public spaces sitting along the streets, serving the shops and conversing. This creates an alternative space within a mostly traditional urban environment where people generate a certain space through their habits and conversation². All parts of the society contribute to daily economic production: while women feed/milk the animals and work in the fields, men work in different sectors and children help in herding the animals and harvesting³.



Fig. 3. Women have been active in daily life.¹

Source: Günay, R. (2017)

Integrated Architecture of Dual Composition of Houses:

Ormana houses have an integrated composition of two different structures horizontally and vertically, made up of two different natural materials—timber and stone. Horizontal and vertical integration refers to the seamless synergy between the composites of the stone and the wooden structures of the house in the plan and sectional levels. The private quarters and storage areas are of predominantly stone formations while the semiprivate and public ones are often wooden construction (privacy is discussed in the following sections). Even though the house has an additive spatial layout, these bilingual constructions, which are reflected poetically on the expression of the houses, are not composed in the manner of addition—one material ending at some point and the other starting—but through the union of two natural materials.

The entrance to the houses, which generally has a 130-150m² footprint¹, is through the street, garden or the courtyard. A timber partition wall, called *daraba* is added on the garden wall, which is thus raised higher (Fig. 4). The wall, which is constructed through the integration of wood and stone, is assigned various meanings, such as creating a boundary, serving as protector, acting as guidance or any other symbolic meanings. For example, as wood serves as the main element, the wall becomes a summerly and related to the exterior; whereas, as stone becomes the primary ingredient, the wall becomes wintry and extroverted.



Fig. 4. Daraba, a wooden screen on a stone-wall of a garden¹.

Source: Günay, R. (2017)



Fig. 5. The organizational and structural organizations within various configurations.

Source: Graphic representations after Günay: M.K. Balarabe

Functionally and structurally dual composition of the houses can be read clearly in the plans and sections as well as within the interior and exterior spaces. As is evident in the typical and semi-typical plan metric schemes (Fig. 5), the service areas and workspaces that are used mostly in summer are made up of timber, while sleeping and storage spaces which have a limited relationship with the outdoor areas are made up of stone. The composition of the houses comprises four axes and four different compartments, as in the orthodox modern designs based on science, economy and rational thinking. Hence, there exists a continuation through ebb and flow of ideas. The stone areas of the houses mostly include a cellar (Giler), a room (İçeri), or a group of rooms. On the other hand, the timber areas consist of an oriel window (şahnışir or köşk/sofa), a group of functional areas including compartments serving as kitchen (cille), and an open wooden balcony (ayazlık) acting as the terrace. Housing character in Ormana can be characterized

according to multiple schemes, using plan types, facades, functionality and sizes amongst others. In Fig. 5, two schemes depicting depth and functionality are presented.

Depth levels are signified by the amount the functional spaces traversed from the one extreme interior space to its opposite interior space. An archetypical house within Ormana has a depth of 3 or 4 that consists of the spaces- *Şahnışir*, *Cille* and *Giler*. However, plan types of lower depth levels exist. Here, the depth level is two and are all small and mostly single—bank houses—the simplest typology of all. On the other end of the depth extreme, enigmatic typologies, whose depth is complex/subjective to ascertain and/or simply does not conform to the simplistic definition of depth offered here are in the minority of cases. Figure 6 illustrates housing typologies by depth.



Fig. 6. Variations on organizational scheme

Source: Graphic representations after Günay: Muhammad K. Ballarabe

Functional typology deals with the relationship between the spaces and their organizational arrangement. Considering the spaces in a hierarchical system of privacy/security, priorities of Ormana Houses are quickly uncovered. Arrangements of the common spaces that include *Şahnişir* and *Köşk* in an archetypal house are at the public segments of the buildings. The level of access to these spaces varies depending on the typology of the house. *Şahnişir* could be either open and continues from the *Köşk* or be separated, forming two distinct spaces. Figure 7 illustrates housing typologies by functional arrangements.



Fig. 7. Main spaces of the Ormana House in various layouts (Graphic representations after Günay: Muhammad K. Balarabe)

Main Spaces of the Ormana House:

Sofa= *Şahnişir*+*Köşk*+*Cille*

The *köşk*, which is described by the architectural historian Doğan Kuban as the ‘Hayat’, which basically means ‘life’, or is generally identified as *çardak* or *sofa*, is the nucleus or the hub that connects the rooms and other surrounding spaces, as in the case of the traditional Turkish

House⁵. This space acts as the extension of the room, not formally but existentially, for each type of activity.

Köşk, lying between the rooms and the timber terrace (*ayazlık*), is the timber space whose one end overlooks the garden and the other end extends onto the street. At the street end of the *köşk*, there is a 3-edged oriel (a wooden bay window), called *şahnişir* or *şahnişin*, extending towards the street on top of the stone wall. At the garden end, if there is not a partition, a fireplace for cooking, called *köşkokak*, is located. If there is a partition, though, then there is *cille*, a space acting as the kitchen with cupboards that used to be a part of the *köşk*. Figure 8 demonstrates both the planimetric scheme of a typical Ormana house and 3D volumetric composition of the house.

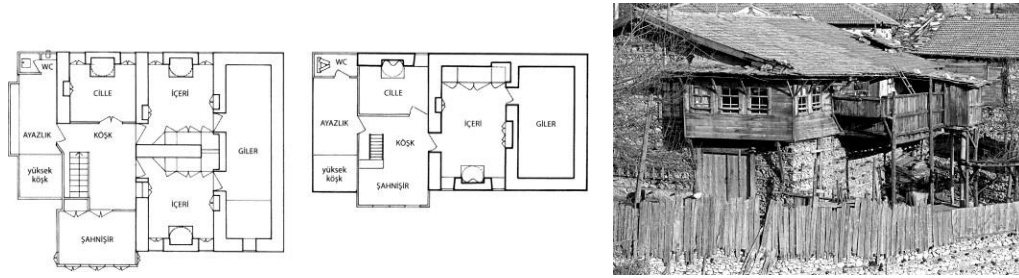


Fig. 8. Typical and semi-typical plan types of Ormana houses and a view of a typical house.
Source: Günay, 2017

The Ormana house can be argued to be the continuation of the traditional Turkish house with an open sofa. Similar to the typical functional aspect of the Turkish House, the ground floors of the Ormana houses are reserved for service areas whereas the upper levels are used as living spaces. The most significant difference between the traditional Turkish House and the Ormana House is the *ayazlık*, which is an open terrace added to the sofa (here the *köşk*).¹

Overall, the modular rationality and multi-purpose functionality common to the Turkish House is evident in Ormana houses within a modern axially and hierarchy, transformed through requirements. In the Fig. 8 the spaces are as follows.

- Köşk: A hall connecting the rooms and other spaces surrounding it. /
- Yüksek Köşk: An elevated (60-80cm) part of the terrace for mostly sun drying fruits, vegetables and the washing laundries. /
- Ayazlık: Wooden Terrace /
- Şahnişir: Wooden Bay Window /
- Giler: Cellar / İçeri: Room /
- Cille: Kitchen /
- Köşk Ocak: Fireplace for cooking

Ayazlık

Ayazlık, a long, open, timber terrace, is derived from the term *tahtaboş* or *tahtapuş* (1) This space, in Egyptian domestic architecture, is ‘the equivalent of the maqa’ad, which is an outdoor sitting loggia on the first floor of the house’¹⁴. However, in the Ormana house, it is located at the ground level acting as a sitting area that is raised one step above the courtyard to keep it dry and is replaced between exterior public and private areas of the house to receive the breeze that blows between them. At one end of the *ayazlık*, which directly connects to the *köşk*, there is a timber toilet and ablution area; while on the other end, there is a raised platform (60-80cm), called *yüksek* (high) *köşk*, which has a backrest. *Ayazlık* has an average width of 250cm and an average footprint of 20.00m². Some house have a non-uniform timber pergola covering the terrace. Since the *ayazlık* serves as the space to dry multiple things, from vegetables to laundry,

[illegible]

Source: Günay, R. 2017 & M.K. Balarabe

The room, called *içeri*, in the Ormana House is a multi-purpose room that meets the entire requirements from bathing to sleeping. *İçeri*, that might be translated as ‘indoor’ ‘interior’ or ‘towards inside’, makes more sense than the contemporary use of room, ‘oda’ in Turkish, which is derived from *otağ*, a nomadic tent. Some rooms include a small vestibule with wardrobes and whose ceiling is lower than that of the room (Fig. 10). Firewood is stored in the lower shelf of the open prismatic wardrobe that sits across the door. Upon entering the room, one is faced with this wardrobe, and then changes his/her direction to circulate inside the room. Thus, this spatial design provides a certain level of privacy.



Fig. 10. The vestibule area and typical interior space of a room.¹

Source: Günay, 2017

The entrance wardrobe rests against the alcove (*yüklük*), which lies along the wall and in which mattresses and duvets are stored. The part of the *yüklük* that is adjacent to the exterior façade acts as the bathing area. The water is evacuated through a wooden box with a section of 8x20cm, which is located inside the wall. The height of the *yüklük* reaches below the *musandıra*, an open, hollow shelf that entwines around the room. The *musandıra* ends with an arched upper façade similar to the façade of the open-sofa Turkish House. The interior walls of the room are covered round by a wooden panelling, called *kitabıye*, which has a height of 60-70cm. Since the interior plastering is formed of clay soil, this wooden panelling avoids the wall to be damaged. The part of the wall that sits on top of the wood panelling is covered with plaster. The built-in wardrobes within the room start at a 30-40cm height and ends at the sill below the continuous shelf. Niches with varying designs are located within the stone wall. While the structure of the roof is directly visible within the *köşk* and the pantry (*giler*), rooms have decorated ceilings.¹

There is a strong link between the concepts of anonymity, flexibility and privacy in a room of an Ormana house. Anonymity is not limited to the exterior elevation or spatial configuration of the house. It is also reflected through the furniture used. Like the conversion of a living space to a bedroom by taking out the mattress from the cupboard and laying it down, the space is privatised momentarily through an anonymous attitude. Each room has the potentiality to be heated and arranged similarly. The rooms are not privatized by a specific function. Rather, they flexibly serve both for daily and private lives through instant transformation, as in any typical-traditional Turkish House (Eldem, 1974; Küçükerman, 1978).

Giler (Pantry)

The fourth and last module of the house is the pantry (*giler*), a place for storing food, although some houses do not possess one. Access to the pantry is typically through the rooms, while in some houses this space is reached through a specific entry from the hall. The pantry has a wooden floor, with no ceiling. The largest pantry in the village is 75m², while the smallest one is 7m².¹

A cellar (*giler*) is normally thought to be an extension of the kitchen. But here, they act as attached spaces to the private areas of the house. These facilities represent where the families' multipurpose activities—i.e. living, sleeping, dining- eating, having a bath etc.—are lived within an *İçeri* and where personal belongings and valuables are kept. The section is the most private areas within the Ormana community. This typology presents a strong connection along the *Şahnişir-Köşk-İçeri- Giler* axis in a hierarchical order from public to private. Meaning and values held within Ormana are not difficult to decipher. Houses offer more than their spatial arrangements^{7,8,9}; they are an insight into the physiological, psychological and phenomenological, economic and political (amongst others) world of the inhabitants. This allows Ormana House to act as an ecological site for interpreting social hierarchies within the privacy of the home. Hence, with the functional arrangements as described above, this uncovers the importance of the *Giler*, being placed in the most secured area and having to pass most often through the most private

areas of the house to gain access. In contrast, *Şahnişir* and *Köşk* are widely accessible and often open to the street¹.

In Ormana houses, privacy is not secured through a complete distinction of functional spaces (bedroom, bathroom, living area, etc.), as is the case in modern life. As argued by Turgut¹⁸, the spatial structure of *cul-de-sacs* evident in the urban fabric is also seen in the spatial organisation of the house. Due to multi-functionality of spaces, the guest is received into the most private space of the house—the bedroom—which is transformed into a living area during the day. Similarly, since the ‘Başoda’, which is the primary space of the Turkish house is located at the upper floor and at the corner, the guest is allowed into this room after passing through the entire floors. As Turgut has shown, spaces often contain dual privacy zones intersecting at a mid-point. The outer zones are where the daily communal activities are carried out, such as receiving guest, having interactions, performing ablutions and cooking, while the inner zones are for the private use of women and children. This zonal arrangement in the day is reconfigured during the nightly hours when the rooms are converted into sleeping pads. The zones become fully private and non-family members are restricted from entry. The concept of privacy therefore has not only a spatial dimension but also a temporal, curated one according to the time of the day and individuals involved. In other words, privacy in the Turkish house is not associated exclusively with restricted access but can be negotiated through different changes in furniture arrangements and people’s positions and locations within a room¹⁸. Each space within the Turkish house, especially the *İçeri*, can be conceptualized as a zone within a privacy continuum.

However, there are few spatial arrangements deviating from *Şahnişir-Köşk- İçeri-Giler* norm. The signifier to this shift is the availability, location and accessibility of *Giler*. The non-*Giler* buildings have an axis that represents *Şahnişir-Köşk- İçeri*. The access is not controlled through *İçeri* but through the *Köşk* and *Şahnişir* and finally *Giler* access from the exterior of the buildings. Fig. 11 demonstrates the location and accessibility of the *Giler* in different housing typologies.



Fig. 11: Variations on location and accessibility of the *Giler*
 Source: Graphic representation after Günay: Muhammad K. Balarabe

Construction Methods and Details:

While timber frame system is used in the construction of the traditional Turkish house, timber flanks with dry stone walling are preferred in Ormana and its surroundings, as opposed to the timber framework construction method seen in traditional Anatolia. Since the frost-line does not exceed 30cm, the removal of the humid soil from 20-30cm of the surface suffices for the foundations. Cedar flanks are placed at frequent intervals on dry walls to distribute the loads equally. These flanks are tied to each other with wooden lathes (*piştuvan*) of 8-9cm diameter and 1m. Height, projecting from the wall about 10-15cm. The *piştuvan* is made of cedar, juniper or mulberry. The distance between the flanks, which are constituted of timber of 8x12cm cross-section and 5-6m. Height, varies between 40cm to 75cm. These planks are placed via eyeballing. The thickness of walls vary between 65cm to 75cm, while walls of furnaces, bathrooms and wardrobes tend to be 10cm thicker. The beams in the roof are made up of juniper tree with a circular cross-section of 16cm¹⁴. After the completion of the roof, generally, a one-year break is given before the construction of the woodworking to allow for the tightening, resettling of the stones and the competing of the possible transformations. The external faces of the walls are not covered with any mortar, whereas the interior walls are coated with mud mortar. This allows for the houses to breathe and avoids moistness. Also, due to the natural materials used in the construction, after its demolition, the house can be fully recycled. The use of cement-based mortar in the houses built after 1975s led to the complaints regarding the formation of dampness and humidity within the houses¹.

While the traditional houses in Anatolia, such as the Safranbolu Houses, Kula Houses, and Amasra Houses have hipped-roofs, Ormana houses have pitched-roofs. Here the roof covering is constructed through thin boards, called 'pedavra', which are topped by stones, allowing them to stay stable in high winds. Hence, the coupling of timber and stone within the walls also continues in the roof. In the 20th century, 15% of houses have tiled roofs; this number has increased over the years. The eaves are between 60 and 70cm. The chimneys are made up of timber and have a circular or square cross- section.

The Ormana house not only delivers a sincere pleasure through its local architecture specific to the site but also refreshes our memory related to modern art and architecture. The parametric compositions acquired through the repetition of a modular form are evident in the woodwork of paneled garden doors and windows, in decorative elements and in craftsmanship that challenges modern arts. The chiseled abstract bird figure in a window lid remains as modern as Picasso's art as Reha Günay, the researcher and the author of the book "Ormana", argues³. Traditional architecture is known through the multiple repetitions of similar motives with slight differences. However, the variety of door, window and fence designs as well as the richness of the design of timber faces within the interior spaces, suffice to overcome this bias. From bronze door handles to knobs, it is evident that the design covers varying styles including neoclassical and Ottoman style. But the motives are a "meaningful part of a coherent symbol-system".

Despite the subtle difference in house forms, at first sight, the overall picture of the settlement appears to be monotonous, a result mostly in old settlements having "the same common legacy of constructive...and decorative techniques"¹⁹ passed down through generations with little critic to the construction / development process. Yet, besides the sizes and configurations of the houses, the form generative decorative elements within the house also create richness and variety.

Improper Additions:

Recently, there is an increase in the number of reinforced concrete houses of industrial materials constructed particularly by those who returned to the village after immigrating to big cities. These new houses are in contrast with the existing fabric of the village regarding colour, material and structure. Hence, it is clear that this accumulation of knowledge, which is refused even by its immediate context, should be better understood and explained culturally. Defying the

knowledge base accumulated through centuries is not limited to Ormana, but is a recent habit followed in many parts of Anatolia. Low profile buildings and improper additions to existing urban fabrics has become a real threat for the heritage, contemporary urban living, culture and image¹.

Conclusions:

Local architecture, architecture without architects, traditional structures, or as mentioned in colloquial speech ‘Village Houses’, with all its elements ranging from its settlement to shattered stones to its furnaces, shelves and wardrobes, lies within the foothills of a splendid mountain like an emotional book describing the poem of humans` dwelling, written diligently². The fact that they integrate timber and stone in their composition and that they include hipped-roofs instead of pitched roofs and that most significantly dual language of the construction and organization enables Ormana houses to demonstrate a lighter architecture with relatively higher complexity as opposed to the traditional houses with only stone walls and pitched roofs. The house in Ormana adopts a modernist approach, which is composed of rational axes, not only representing a functionalist and rationalist style but also having a sophisticatedly detailed and organizational structure. The Ormana House represents a poetic expressiveness that creates a variety of emotions through its textured facade with its ever-changing expression under light and shade beside variation of comfortable living spaces responding to seasonal requirements.

This rational approach is still evident in the typical plan of the Ormana House, even though the plan is transformed through requirements. Although the combinations of this plan type seem to be limited, in application rather diverse and rich results are achieved (see Figs. 6,7,8 and 11).

The faces on which the rhythmic shadows of *piştuvans* that rise on densely composed timber flanks and overhang the stone walls are reflected to create a more succinct fabric than the brick-stone masonry walls of the Byzantium³. The geography of the village, the natural and pleasant features of the animals and their friendly attitude towards the inhabitants, daily cross-sections of children, elderly, women and men, the work life, the traditional clothing, production methods, cooperation, collective attitude, and the facial expressions that have textured in time through melancholy and labor like that of stone and timber, decorative elements representing cultural reflections of objects, the perfect forms of hand-made objects, the advanced wood-work craftsmanship and handcrafted house objects and ovens are imprinted in our minds as the memorable elements of an integrated poem and synergy between first wood and stone and then other components of the environment, including tangibles and intangibles.

Cities appear to be like fragmented texts reminding us of our failure in benefiting from the design experience accumulated over centuries by our traditional architecture to produce permanent solutions to design problems ranging from housing to city-scale issues. The settlements like Ormana and the buildings in them might be guiding sources for creating new environmentally friendly environments inclining towards the use of regenerative materials increasing building resilience rather than the use of non-sustainable concrete and steel. As Hassan Fathy claims, if we can manage to solve the existing, simpler problems within the rural, then we can produce better solutions for more complex, urban issues⁶. As we try to find solutions to urban problems through new technologies and stand by to watch the inept rapid urbanization of the rural, we are depleted of one of the primary solutions to urban life.

This study, which focuses on the physical environment and buildings, should be enhanced through more research on social context—the role of the women and men in private and public lives, hierarchies within social domain, the relationship between parents and children as well as between different genders and ages, educational tools, and the existence of beating as a primitive educational tool and its effect on daily life—and its associations with spatial transformations.

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Notes:

1. (Takhtaboosh in Arabic), which includes *tahta* (timber) and *boş* (empty) (<https://www.etimolojiturkce.com/kelime/tahtabos>). In Anatolia, “tahtaboş” is described as the balcony with a view to the exterior life. This is where the women hand out the laundry or dry herbs or sit/converse in good weather. In Egypt, on the other hand, it is identified as “a covered outdoor sitting area at ground level, located between a formal and informal courtyard” (Steele 1988, 136).

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