

Modernity and Identity in Oraman Village Architecture of the West of Iran

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ABSTRACT



In Kurdistan, Kermanshah and West Azerbaijan provinces of Iran, there are regions with plain but amazing contexts by which one can identify the hidden identity of the regional architecture in its various components. Most villages are built on the sides of narrow valleys with over a 50° slope. They face south and southeast to receive the most daylight. In the first part of this article the topographic and architectural structure of the region is introduced, and in the second part, specific sections of this region have been analyzed in terms of modernity in relation to the hidden identity of the traditional architecture, urban planning and the components of forming spaces. In addition, fundamental similarities of this vernacular architecture and precepts of the International Style have been compared in the final part, in order to explore the possibility of creating a distinctive form of modernity within the hidden identity of Oraman Village architecture.

Keywords: *Architecture, West of Iran, Oraman village, mountain villages, urban planning*

INTRODUCTION

The range of this study follows the Zagros Mountains from West Azerbaijan to Kurdistan and Kermanshah provinces in the west of Iran. The Ararthu descended from the races of primitive Iranian tribes residing in this region between 1500-1000 BC. The first signs of architecture belong to the Ararthu. Ararthu architecture relied on block pillars and joists for many

centuries, structures that most probably had a religious purpose. The materials used for building came directly from the site. Indeed they modified the local material based on their need in the past as well as today. There are many differences in terms of architecture in the present context compared to the old one. Obviously, these differences came under the influences of facility development and the establishment of connections between other cities

and the exterior cultural effects of modernity. However, in both the ancient and modern architecture of this region, nature is an integral part of human life. There is no separation between them as can be seen in villages that form a stepped pattern following the topography around a lake.

ARCHITECTURAL FEATURES OF THE HIGHLAND

Most villages are located on the sides of narrow valleys with over a 50° slope. They face southeast in order to receive the most daylight. In most cases residential houses are located on one side of the valley and cultivated land on the other side. The village context completely complies with the region's slope and major transport routes inside the village are formed by intertwined layers and public networks. Alleys are located on the side hills and usually a main passage with the greatest width connects each side of the village as a major transit axis. Other parallel alleys have formed secondary routes and they form tributaries down the slope. In accordance with the transverse elongation of the village and the degree of the slope, a number of vertical passages have established connection between upper and lower parts of the village. Another important point is that there are sections of passages that pass under residential spaces, similar to the desert architecture of Abiane, a village of the Sasanid period near Isfahan from about 2000 years ago (Figure 1).

One of the most important urban features of hot and dry regions is the centralized structure of the main square. Elements such as mosques, bazaars and other public facilities are located around it. The central main square of villages is organized in a linear manner and in some villages there is more

than one center. Central squares deform due to the impassability of the area, lack of land and vast flat regions, the elongated form of a village, or elevated land. The width of the main passage of these central main squares is greater than the secondary streets of the village. The central square and spine is dedicated to gathering people and public services. A centralized structure can be seen in the architecture of the houses as well. The residential structure of the villages does not follow introverted principles. As there is limited space for building houses the villages' development results in houses built on several stories. Noticeable connection of one house with another, especially on upper and lower sections, resulted in stabilized social relations within these villages (Figure 2).

ORAMAN, AN INTERESTING EXAMPLE OF VILLAGE ARCHITECTURE IN THE WEST OF IRAN

Oraman Takht is a village in the District of Sarv Abad in Kurdistan province, located 65 km southeast of Marivan and 170 km from Sanandaj in Kurdistan province. This village is on the frontier between Iran and Iraq. This beautiful village is located at 1450m altitude, and has a pleasant and mild mountainous climate during spring and summer, but is bitterly cold over the long winter. Oraman is pronounced 'Hooraman' in Kurdish that is translated as "God's home"; 'Hoor' meaning God (Ahoora) and 'man' meaning home. It is also translated as homeland. Oraman has remains of numerous ancient fire-temples around it, indicating that the people of the region were Zoroastrian before converting to Islam (Figure 3).



Figures 1a, 1b:
View of Oraman village in Zagros mountain in west of Iran.

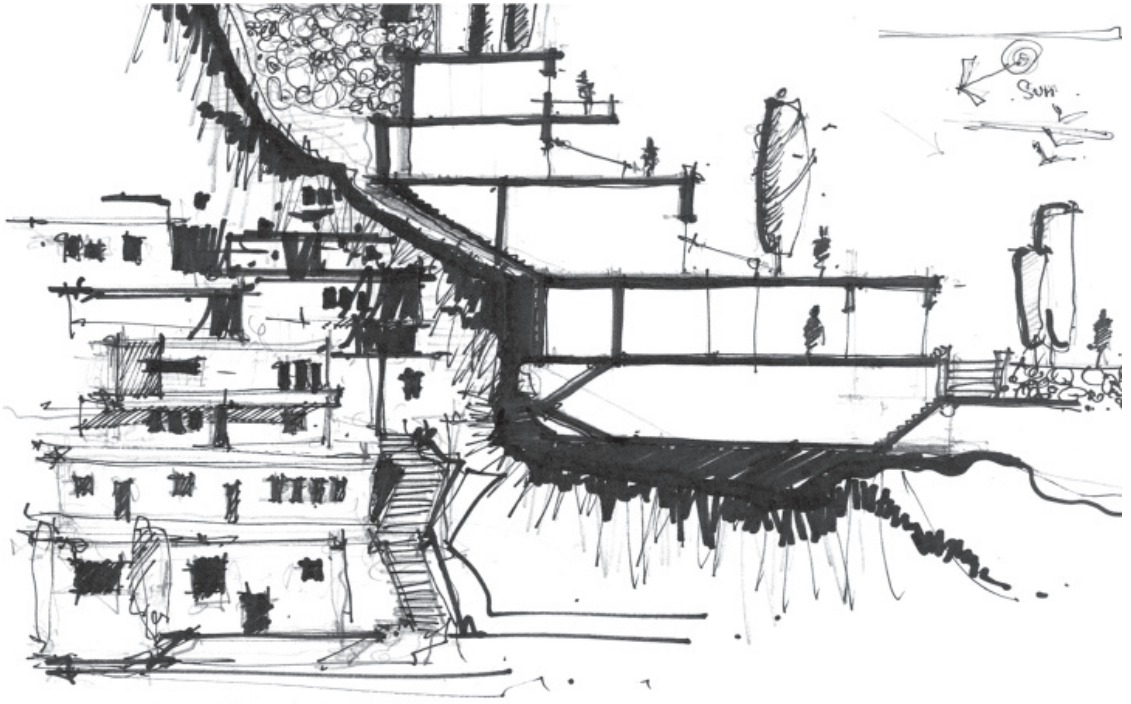


Figure 2:
Sketch of stepped pattern of the village.



Figure 3:
A Kurdish grandfather with his granddaughter.

This land was the territory of aristocratic sovereign rulers who governed the land and as a result the village has been called Oraman Takht, which means the Capital of the Kingdom. On the other hand, Oraman was a populated city used as the governing capital of Oramiha (Oramis). The living space of the residents is mixed with the natural environment. The social conduct and economic activity is evident in places such as barns, stores, granges and even places for putting the vertical carpet gallows, carpet

and jajim weaving machines, in addition to resting places, rooms, bathrooms and kitchens.

Oraman architecture conforms to many of the tenets of organic architecture. You can vividly perceive the consistency between human and nature in this region. The firm and huge body of the mountain have been abraded. With these same stones, firm and lofty houses are made in the procured mountain beds. The stones taken out of the very same beds are artistically and proficiently put into the walls forming smooth vertical surfaces. One of the consequential downsides of the design is the difficult, arduous access to the upper stories. Most of the connections are established through open or semi-open spaces. Due to the special situation of the land-steep sloped with a lack of appropriate flat bed-most interior spaces of the houses are dedicated to main functions and protruding wooden and stone stairs establish the public connection. The walls of these houses are dry formed, meaning that these walls are made without using mortar. Stones needed for building the houses are quarried from the mountains of the region. The semi-open spaces of terraces and balconies are designed and executed back from the central part of the elevation or in the form of protrusions from the building edges (Figure 4).

The villagers of Oraman, as a result of the highland, construct their main houses on coops, barns and stables, forming a complex semi-terrestrial platform on two uprights. Big middle rooms and the barn are under the ceiling called *koleke* atop wooden pillars. There are two to three pillars in the barn spaced far from each other. These pillars transfer the weight from the ceiling to the ground. In the center of Oraman some houses are completely connected to the mountain and often some parts of the mountain

is considered as a wall of the house. Furthermore there are wooden protruding pillars used as stairs to the upper floor. To construct a building, first the desired place is selected and subsequently the necessary bed is dug down approximately half a meter. After that stone fills the foundation. In the next stage various walls were constructed for two meters. Finally, boards made of mulberry, walnut and sycamore trees were used for continuing the process (Figure 5).

These boards impede the high pressure of the body of the wall preventing cracks. They are not constructed throughout and cease at the wooden seating layer. Prior to concrete pouring, the board is covered with a sack and pebbles and then concrete is set. After this stage the roof level is flattened by round stones and lastly completely covered with a cob layer and flattened once again. Round holes are found on the roof of kitchens and bakeries similar to the domes in the desert architecture of Iran. In most instances, houses of this region are built on two floors. House spaces vary, contingent upon the livelihood of the occupant. In many cases the ground floor is used for keeping the livestock. The main residential space is located on the top floor or floors. A big room of the house, called *Nomeymani*, is allocated for guests and is fully furnished (Figure 6-10).



Figure 4:
a balcony of a house.



Figures 5:
A wall without mortar.



Figure 6:
"Nomeymani" guest room.



Figure 7:
Divakhan: Corridor of house.



Figure 8a, 8b:
Nishtman mal.



Figure 9:
Two-floor house. The lower floor called Zhirokhan and the upper floor called Serakhan.

There is a corridor called *divakhan*. The other room *nishtman mal* or *nawmal* is a living room for the people of the house and Oraman people called it *yane*. In the past, a place for cooking food has been constructed in the corner of this room by utilizing two stones and mud called *kwcigawir* or *arga* for baking bread on it. In addition, in the middle of the room there was an oven on which a *korsi* was placed for heat and relaxation during winter. The lower floors of the house are usually referred to, as *zhiro* or *zhirokhan* and upper floors are *seroo* or *serakhaan*. The livestock are kept in a place located on the lower

sections of the house called *gahvar*, and it has separated spaces with stonewalls or wooden fences. There are small windows called *villeh* for light supply and ventilation of the spaces. Spaces for bathrooms form the other sections of the residential architecture of these regions in the minimum space required (Figures 11a-11d).

Stone is considered the main material for the region and it has the primary role in construction. Local people have practical experience in identifying stone types in the field and they have explored and



Figure 10:
"Villeh" a small window in the lower floor

extracted stones in various quantities. The big stones of appropriate size are used in foundations and they have less importance in terms of facade construction. Stones with appropriate size are utilized in the construction of walls and facades.

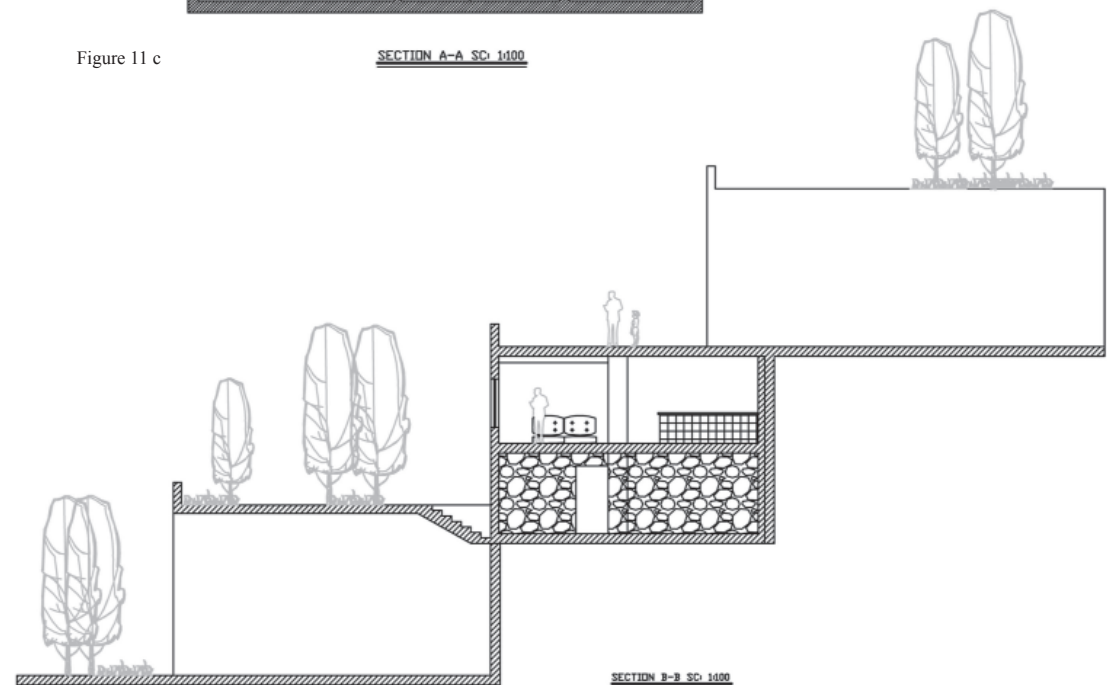
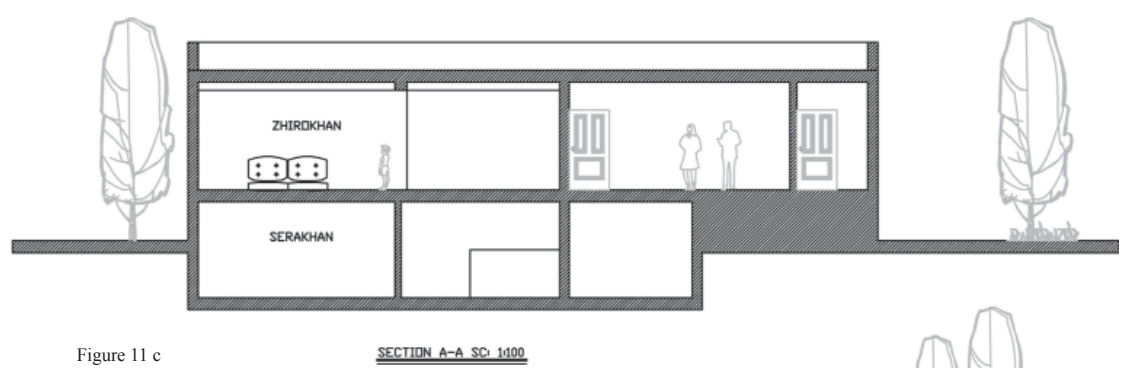
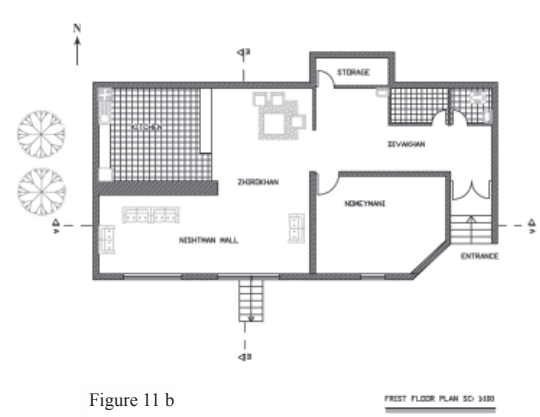
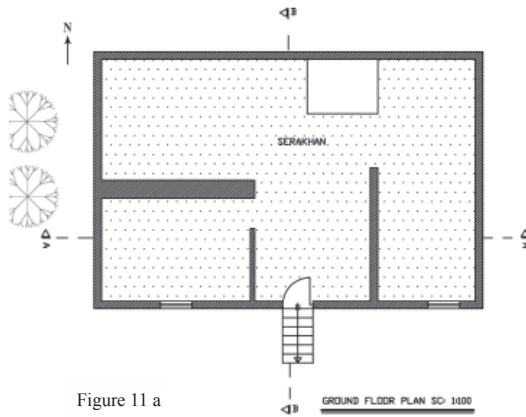
Wood is the second major material in the construction of Oraman architecture and it has been used in the coverage of the ceilings. Also in the construction of public places such as mosques, where the open and vast space inside the building is crucial, one can find the artistic use of thick wooden columns in appropriate dimensions. Another use of wood is in windows and doors that are made by carpenters of the area, using primitive carpentry tools.

MODERN ARCHITECTURE IN ORAMAN

A comparison of the architecture of Oraman from the past to the present reveals many continuities and differences. Obviously these differences are influenced by facility development, the establishment

of connections between other cities and the foreign cultural effects of modernity. In spite of contact with the modern world, the local people still prefer using local natural materials rather than industrial products, but they have adjusted the architecture of their houses in consultation with experts working in the area. Today the construction of houses in Oraman has introduced rubble stone application. The use of regulated rubble stones in wall construction with a height up to four floors continues the existing balance line in the construction of Oraman, resulting in new buildings such as hotels. The added stories are of equal height in each row, following the principles of revetment links, with regular sections in the walls and vertical plumb lines. Joist and barrel arches are used as a substitution for wood in comparison to the past (Figure 12).

The connection between houses along the main routes, bazaars, mosques and schools is difficult in this steep slope. In order to reduce problems they have tried to create a balance between the main contexts of the village. Stores and other facilities are built close to each other with high transfer rates.



Figures 11a-11d:
Floor plans and Sections of an Oraman house.

The village route passes through the village like a belt, many branches and embranchments to other houses and section are established. All the routes are formed by compressed dry layouts where they have used big and small stones. Foundations are considered the basis of construction; it can tolerate the total pressure of the building and transfer it to the ground. Regarding the conditions of the region, the lofty mountains and position of the village in the middle of these mountains, the foundation has no stage except for places where the slopes needs to be leveled.

The second part of building is wall and stone bases. They transfer the load of roofs and floors to foundation for building the wall. Stone material from the region is used in building walls and balconies. Nowadays, mortar is used in the wall, like in other areas because there is no access to connecting materials. In the past, wall building was performed as *khoshkechini* without mortar (Figure 5). The

result is very strong and stable wall whose effects are obvious in ancient villages built more than 500 years ago. In the past, the height of walls reached even two to four floors (12 m) with no use of mortar. The width of walls on the ground floor is around 60-70cm and continuous to other floors. Usually porter walls are placed up to each other and the internal part of the building was covered with cob because of mountainous cold climate. Sometimes patchwork or one layer of cob is used for insulation and sometimes the outer layer of the building is pointed. The larger stones are used at the bottom and gradually they convert to the smaller ones based on the height. Other smaller stones could be used for filling. After the wall completion the ceiling is built. 15 to 20cm of thick wooden posts are used all over the wall after joisting the ceiling. The perimeter of the posts is usually around 45 to 70cm and the length may increase to 5m as the opening is 4m and the posts are put up diagonally (Figure 13).



Figures 12a, 12b:
Modern construction process.



Figures 12c:
Oraman hotel.

The openings used to be built in small dimensions of around $1 \times 0.7\text{m}$ due to weather conditions but the new dimensions of the windows are usually about $1.50 \times 1.10\text{m}$. A type of handle is used for the windows and the distance of the windows to the ceilings is usually 20cm . The dimensions of doors using walnut and mulberry wood for their construction in the past were $1.50 \times 0.7\text{m}$. The forms of the doors and windows were usually regular and have the same type and all the parts were made of wood (Rostami, 1997).

CONCLUSION

Some characteristics of Oraman architecture are consistent with fundamental principles of organic architecture with the least burden to nature and all buildings are constructed in harmony with the slope and topography. Glances on the plan site of most highland regions and even great cities in this area such as Sanandaj, the capital of Kurdistan province, vividly manifest the modulation of the buildings with

the surrounding environment. Balconies and terraces proficiently connect interior and exterior space. On the other hand back sections of the houses are completely located inside the mountain and in most spaces, the last opening, is the natural foundation of rock and mountain.

The same principles that Pirnia mentioned as self-sufficiency can be seen in the architecture of this region (Pirnia, 2005). Using stone and wood taken from the natural foundation is a proof for this. The architecture of the west of Iran, especially rural areas and regions where they have preserved their primary structure and originality are still unknown. This initial research shows the rich structure of architecture and urban planning of the region. In this study of the villages of Oraman Takhts in Kurdistan province, some characteristics are introduced as follows: Village orientation, establishment situation, transporting routes, definition of center, general typology of residence, materials and construction process of residential architectural spaces. Some features of Oraman architecture are: Minimal



Figure 13:
A wooden ceiling.

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interference in the natural environment, modulation of the buildings with the natural environment as complementing each other, modulation of the interior and exterior spaces, using of natural materials, continuous display of materials from inside to the outside of the building and the development of a social structure. The results of the present study show more continuous research on architecture of this area could be conducive to discover connections to organic architecture with clear principles and definitions of identity of architecture in this area. These principles are considered as the most important outcomes of such studies.