

Ancient Habitat of Kabylia : Identities and Originality

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Abstract

The Kabylia region has a rich architectural heritage and is considered one of the most important heritage elements that distinguish Algeria from the rest of the world, bequeathed by our ancestors, which attracts the attention despite its ancient construction and its exposure to many natural factors, remain unshakable. In order to allow future generations to immerse themselves in the culture of their ancestors, they must reintegrate them again and convert them within the framework of mountain tourism. On the other hand, we note that this habitat has not been the subject of care and study by specialized researchers, archaeologists and architects.

In this communication we invite you to discover the history and architectural structures of villages and houses in Kabylie by focusing on the preparation and organization, as well as the construction techniques and the raw materials used and how can we preserve them?

Keywords: Kabyle villages; house; Architecture; Heritage.

1. Introduction

The architectural heritage of Kabylia is the product of a culture and ancestral moral values inherent to Kabyle society, its preservation will allow us to better understand the way of life of this society, its know-how as well as its great capacity to adapt to the environment, the climate, and according to the topographical nature and its local materials available and the appropriate techniques. The topography of the mountain site strongly dictated the establishment of villages in Kabylia, most of them built on the ridges and slopes of the mountains in perfect harmony with their environment, they house houses with elementary architectural forms, whose interior layout reveals living and activity spaces; we can also observe a joint relationship between inhabitants and animals. Tizi-Ouzou and Béjaia are home to an important number of Kabyle villages, for reasons of proximity, however, it should be noted that Kabyle villages also exist in the regions of Bouira, Bordj-Bou-Arérj (Haute Kabylie) and Boumerdès, Jijel Sans forget the wilaya of Sétif, notably in the North-West.

The theme of traditional housing in Algeria has widely attracted the attention of researchers mainly in sociology, geography and economics, numerous works and studies have seen the light of day (Maunier, R, 1926), the collective construction of the house in Kabylie, highlights the sociological aspect of the villages, particularly on the way in which social organization develops.

The problem: The Kabyle habitat constitutes one of the essential testimonies for our collective history, and reflects centuries-old know-how, this architectural heritage has undergone transformations which have accompanied, with a greater or lesser delay, the economic and social changes of its inhabitants. In this communication, we study the house within the village, the spatial organization of the Kabyle house and the different meanings that the spaces contain, and we tried to find out: What are the know-how linked to this traditional architecture? Has it taken into account environmental data, particularly bioclimatic problems?

The hypotheses: Traditional architecture has taken into account environmental data, particularly bioclimatic problems, and this: using local materials such as stone, wood and earth, therefore respecting the environment, this in addition to building small spaces with thick exterior walls for good thermal inertia, local materials played an important role in meeting the requirements of its occupants, while preserving the environment.

Objectives: The main objective of this work is to restore consideration for our historical monument and to know the essential characteristics of the past which allowed the emergence of a specific traditional habitat, understand the processes of social and spatial transformations that generated the form of evolution of this habitat, and know the construction rules dictated by tradition and promote construction techniques related to local materials which play a determining role in local architectural expression.

Geography and morphology

The word "Kabylia" derives from "Kabyle", which the most commonly accepted etymology derives from the Arabic qabā'il, plural of qabila, "tribe", in the first sense the Kabyles would therefore simply be "people of the tribes".

The regions of Kabylie form the Tell Mountains between Algiers and Constantine, around the Djurdjura and Babors massifs, a segment of the Tell Atlas mountain system of North-Eastern Algeria, It is located between four large natural spaces: the Mediterranean to the North, the Hauts Plateaux to the South (Dahmani, 2004, p. 3986), the Algiers to the West and the Constantinois to the East.

correspond to the tell of eastern Algeria, this mountain range is subdivided, from West to east, into four massifs: the kabylia of Djurdjura to the east of Algiers; the kabylia of Babors on the right bank of the Soummam (fig.1); the kabylia of Bibans to the east of oued sahel; the kabylie of Collo or numidic to the West of Annaba and to the north of Constantinois

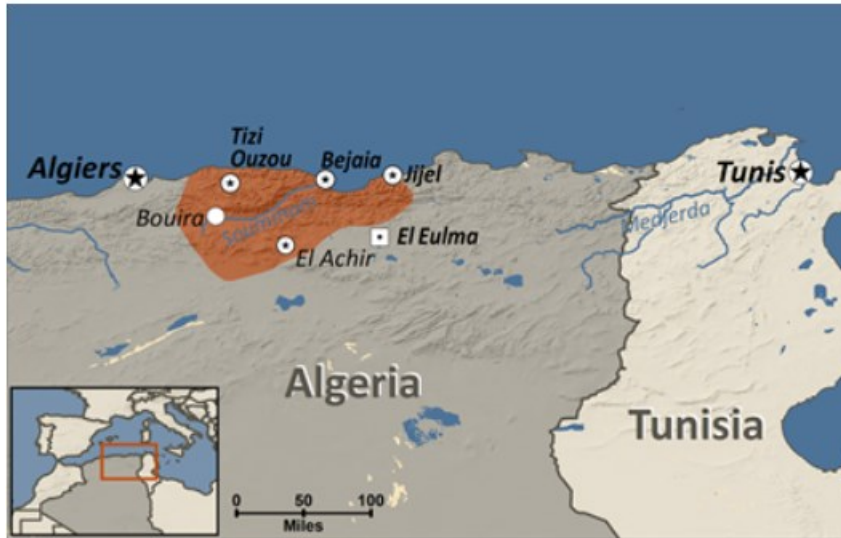


Fig 1 : Kabylie region

Materials and methods

One of the villages was chosen from the large tribes, which is Taourirt Mokrane (fig.2), It is one of the largest villages in kabylia country, located in the Larbaa Nath Irathen region, 30 km southeast of Tizi Ouzou. The houses are distinguished by their age and traditional architecture, retaining certain primitive characteristics of a rural house, however, with the development of architecture and human needs to develop their lifestyles, some of them disappeared and others were modified according to the needs.



Fig. 2: The village of Tourirt Mokrane before and after 1900

Source: (<https://www.flickr.com/photos/159581962@N02/49814877008>)

<http://www.lestizis.fr/Kabylie-1900/Villages-Kabyles-1900/Villages-SansNoms/index.html#img=Village-Kabyle-054.JPG>

2. The village

The village is the place where the house is located, the home of each family, the animal and the reserves, it is a social and economic unit, It is a structure which is found in the villages which is called thaddath, E. Masqueray who defines it as a vague word (Masqueray, 1983, p. 83), applicable to all groups of houses, and which properly means plurality of houses, other definitions of this entity exist, they reveal other functions, *Thudhrin* plural of the Term *Thaddarth* (another spelling of the word *thaddarth*) designating a “place of life”, is considered the fundamental political and administrative unit of Kabyle society.

Generally, most Kabyle villages of very high density, are built on ridges, mountain slopes or even on plateaus with various village names according to its topographical implantation, like “*tawirt* (hill), *tagemmunt* (nipple), *agwuni* (plateau), *tizi* (pass), etc. », the village is a group of houses (Feraoun, 1953, p. 12) and the houses are made of an assembly of earthen stone and wood.

The village made up of a group of houses, neighborhoods, the alleys are the elements that make up the structure of the village, they serve the different houses, and are of variable, linear or sinuous shapes which can be explained by the morphology of the terrain (Zenboudji-Zahaf, 2000, p. 54) or a desire to stop the gaze and break the momentum.

Morphologically, we can distinguish in the Kabyle village according to a passage gradually from the outside to the inside the following structures (Aïssani. Djamil, Lobrano. Giovanni, Sid Ahmed. , 2004): *Tajmaât*, the alley, the impasse, *asquif* dead end, *l'hara*” and finally the housing unit. Here, we can add the elements that accompany the village: the place of prayer, the cemetery, the fountain, the “*anar*” threshing floor, the mill and finally the market gardens.

- Closed court of meeting (*Tajmaât*): The place where the villagers gather (male space). This is also where the meetings and assemblies.

- Alleys : It is the articulation element between the entrance and the exterior of the village, they serve towards the different houses, and are of variable shapes, linear or sinuous changing directions each time: which forms broken alleys

- The dead ends: Semi-private space, generally perpendicular to the alley, it is used for the distribution of houses, only people from the same group can have access to the dead ends

- the court (*L'hara*): the hara, the unit on which the overall structure of the Kabyle village is woven, is constituted by a set of houses depends on the number of families subject to the same head of family and living grouped around the same space (*afrag*)

- A closed space (*Afrag*): It is the place which combines many activities especially in dry seasons, day and night, so during the summer, women cook there, the family can take their meals there, it also serves as sleeping areas in summer, in more of its function of service and transition and distribution to other spaces such as the house and the vegetable garden.

-The fountain (*Thala*): Space reserved for village women outside their homes, women generally go there in groups, to draw water and wash the line, while discussing and exchanging news.

-The house (*akham*): The house is the main unit of Kabyle society, it brings together three generations (Grandparents, Parents). The Kabyle house is located on the East-West axis to take advantage of the sunshine, and the frame is oriented North-South. The shape of the Kabyle house is rectangular, the dimensions of which vary between 9 and 11m in length. , 6 and 7m wide.

3. Kabyle House

A stone or adobe hearth, are covered with two-sided roofs, made up of wooden frames and red tiles and others with mud terraces, houses with courtyards, generally low and attached to each other, they are served by more or less steep paths which most often end in dead ends, we approach the house and its front and exterior structures (fig. 3) what we call *Axxam* (Maunier, 1926, p. 28), Amazigh word designating “house” or “habitat”, the traditional Kabyle house developed as the family grew, a building which was erected thanks to the collective solidarity of the community, the role of each member was very precise, the men built while the women transported the stones, clay, lime, reeds, tiles, water; As for the children, their participation was active but limited to the transport of small stones and when the layout of the paths permitted it, the transport of materials was ensured by donkeys, due to the mountainous morphology of the terrain and the absence of other means of transport.

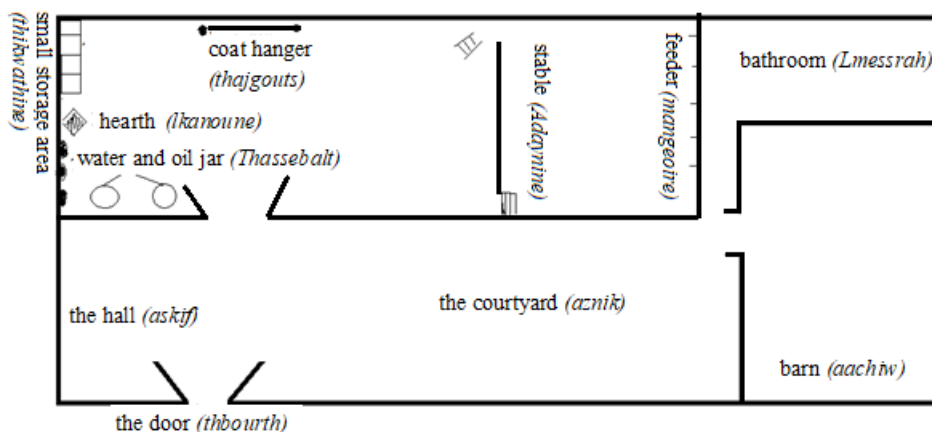


Fig. 3: Simplify diagram of the previous structures of the house (Developed by Author)

These dwellings built next to each other are described by the sociologist Bourdieu like “dwellings grouped together in villages, turning their backs on the outside, forming a sort of enclosure (Bourdieu. P, 1972, p. 25) without opening, easy to defend, and opening onto narrow and rough streets”, they are built on fairly small surfaces and have the enormous advantage of preserving the family privacy dear to Kabyle society, in this space we find different structures and subdivisions, everything depends on the surface area, the means of each family and their needs (fig.4):

1. House with two halls separated by a courtyard, and the main room contains a ground floor for animals.
2. A single-unit house with stacked rooms and a courtyard with a principal door
3. Large house with different rooms around a courtyard in the center with a main entrance
4. Closed house without courtyard which contains different rooms

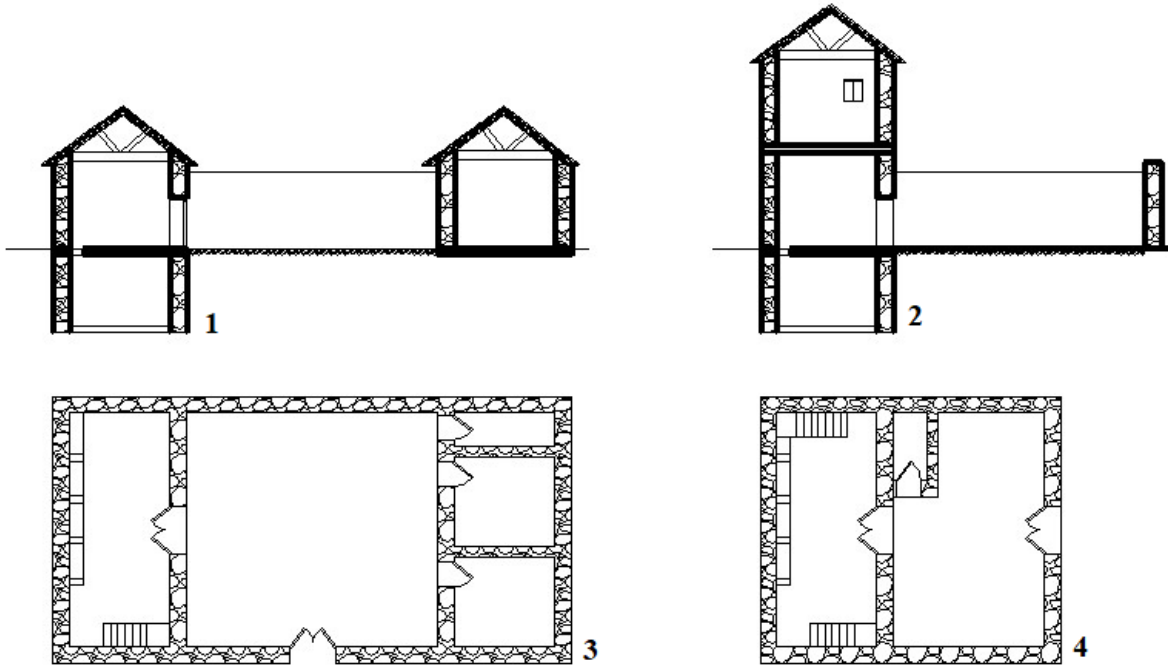


Fig. 4: Different architectural form of Kabyle housing (Developed by Author)

4. Composition of the house

In most of the villages that we visited in Larbaa Nath Irathen (Icharithen village and Thourirth mokrane), We generally see houses designed in a rectangular shape delimited by a surrounding wall encompassing all the rooms (fig.5), generally find a division of three main parts, which is very widespread in the Kabylie region (Ais Amar, 2003), each of these parts corresponds to a defined function in the house and includes secondary or elementary spaces, the first is called (*taqaet*) living room, it occupies two thirds of the house; the second (*addaynin*) stable and the third (*taerict*) room, each occupy a third of the house; the bedroom being superimposed on the stable, addresses each space from the main entrance.

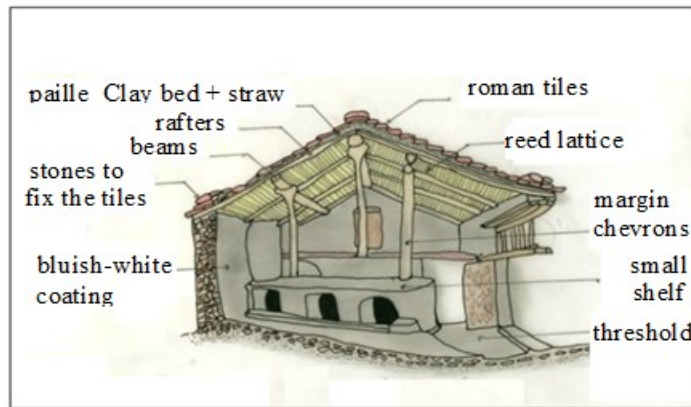


Fig. 5: the components of the house (Zidmal. N, 2012, p. 17)

-The main gate (*Thaburth*)

Its dimensions are between 1.40m to 1.50m in width and 1.60m to 1.70m in height (fig.6.a) for large houses with large doors, we also find small doors which do not exceed 1m.50 in height and 1m in width, the main door gives access to all interior spaces, leads to the courtyard or sometimes a small corridor called (*Asquif*), une partie attenante à la maison elle-même couvert et aménager pour accueillir et abriter un passager éventuel.

- living room or main room (*Taqet or tiyeryert*)

This is the living space of the house, located just at the entrance to the house, it is "square or rectangular" in shape, without windows and without chimney, where the hearth is dug into a dirt floor, the smoke escapes by filtering through the gaps in the roof", serves as a space for preparing meals, especially in winter, but also for work (weaving) and as a dormitory. It is a space exclusively reserved for women during the day, men only come there to eat or sleep, in front of the entrance to this space (*Thajgouts*) a long stick suspended from the ceiling to put the bedding.

- the stable

Located below the first level of the house which is the living room, used to accommodate animals (cows, goats and sheep), includes a feed trough (*lemdhawedh*), and a small space which is used to store wood, fodder for animals or to store firewood, and a corner or space covered with stone paving slabs (*Basagna. R et Sayad. A, 1974*) slightly sloping to facilitate the evacuation of manure to the outside, equipped with a hole in the wall, above this stable is a room called (*Thakana*) or (*Tarichth*).

This space served as heating for the house, the heat given off by the animals, in some smaller houses, the stable did not exist and the houses had the sole function of providing shelter.

-The loft (*Taarichth*)

Located above the stable, it is a small room sometimes housing the storage holes (*akkufi*), sometimes the newlyweds or the other children when the family feels cramped, It is accessed from a very steep staircase which also serves as storage for utensils, while in other houses, you can access this room via a small staircase (*thadoukkant*), it is the only room in the house which has small windows of 50cm/50 cm, narrow in wood (fig.6.b)

5. Elementary form

-**The threshold (*Amar*)** Located just at the entrance to the house, is considered the threshold, it played the role of limit between the interior and the exterior, adjoining this threshold, a semi-circle-shaped space was used by housewives to wash dishes, and by residents to do their daily washing during winter periods, it is sloping and ends with a channel (*tazulixt*) for water drainage (fig. 6.c).

-**Reserve room (*Thakana*)** It is a space located in elevation, either above the hall (*asqif*) or above the small bedroom, it is considered a room where you can sleep, but also where you store your supplies, this space is added when the family grows and is accessed from a staircase which can however be replaced by a ladder.

-**Toilet (*Lmesrah*)** Space delimited by cactus is the place reserved for natural needs.



Fig 6: House elements
a- main door. b- Small room below the stable. c- The Threshold

- **storage holes (Ikoufane)** For more comfort and better organization of the house we find storage niches, the villagers integrate niches into the walls and build storage silos called (*ikufan*), serves as food reserves of plant origin: grains, beans, dried figs, carobs, acorns,etc, they also serve as a place to light the rooms using candles or others, they are carried out during the construction of the walls, their dimensions are very small, they are around 40 cm in width, length and even depth.

They are also found in the form of square jars (fig.7.a), are perceived as enormous and reaching up to the roof, made of uncooked earth mixed with straw to hold cereals or figs, this had four round holes large enough to pass the arm through and remove the grain, these holes were closed by cork discs of the same dimensions, and jars for other uses for oil (*Laksadh*) or for water (*thassebalt*).

- **The shelves (Lakdhar /Thadoukant)** are small shelves arranged along the wall next to the fireplace, in the form of a hole is used for cooking and warming up and on the hearth there are small shelves (fig.7.b).

- **The roof (skef)** supported with tree trunks of oak or Aleppo pine and juniper, planted in the ground or placed on a base on the upper ends is placed a small slab in the form of a capital (fig. 7.c)

6. Construction techniques

The architecture of these houses, whether stone or adobe, that is to say erected from rudimentary materials existing in nature and in the immediate environment, also presented a certain uniformity (fig.8), generally, we find this uniformity in the interior functionality of houses, in their size as well as in their compactness, which made it possible to reduce the surfaces exposed to the outside, thus combating harsh climatic conditions by limiting heat loss.

7. Construction materials and raw materials

In Kabyle society the construction of their houses uses local materials mainly stone, wood and clay, the shape according to the topography of the land (Genevois, H, 1962)

-Stone:

Is a material which is very available, It is extracted from the terrain which is often rocky or from the place where the latter is available, the stone used in the construction of walls is a natural material, extracted from nature, its use therefore does not require any particular treatment except perhaps that of cutting it to give it a certain shape, it is a solid and heavy material, it is a real energy accumulator with high thermal inertia which stores heat to release it in moments of coolness.



Fig. 7. Other components

a- Storage hole and jars. b- Hearth and shelf.
c-Shape and component of the roof

-Wood :

Kabylia was a wooded region, wood is also a very available material, several varieties of wood exist such as oak, ash, olive tree, eucalyptus and pine... etc. The reeds for the roof and the straw mixed with the earth are also available on site. In traditional house construction it is used for the superstructure, beams and pillars, for the frame, but also for doors and openings, their tiled roof was supported by beams supported by pillars, the doors were generally carved

-The earth:

A material widely used in construction, it is used for bonding the stones making up the walls of the house, but also for coating and covering the walls and floors, the earth is also used for the making of certain essential furniture in the traditional house which is the different silos and jars existing within the latter, grain silos, oil jars and water jars. The color of the earth depends on the quantity of metal oxide and limestone it may contain, thick earthen walls have the advantage of accumulating coolness during periods of extreme heat and transforming into a heat accumulator during the coldest periods.

- Straw :

This material in the Kabyle house is used to mix with earth material to prepare the coating which is used for the walls and floors of the latter. Straw, a plant material, has the advantage of being economical durable and biodegrade.

8. How can we preserve traditional houses?

The author also referred to the nature of traditional architecture (Femi Emmanuel Arenibafo, 2017) as an embodiment of the cultural heritage of people, Culture is dynamic, architecture as a cultural phenomenon changes as culture does and the local architectural identity of any particular society is an important life container (Zhino Hariry , 2017, p. 59) which reflects among other its cultural values and meanings that evolve over time. Different aesthetic values are found in varied cultures around the world that have been formed by various natural environments, cultural principles and moral foundations.

The anonymity of the builders means that this type of heritage remains unknown and vulnerable: “vernacular rural heritage, by definition humble and popular, can explain why it is so little represented on the world heritage list, it does not have any spectacular or monumental characteristics, and its buildings are not signed by the great names of universal architecture, but by ordinary and anonymous people” (Richon. M, 2008, p. 29).

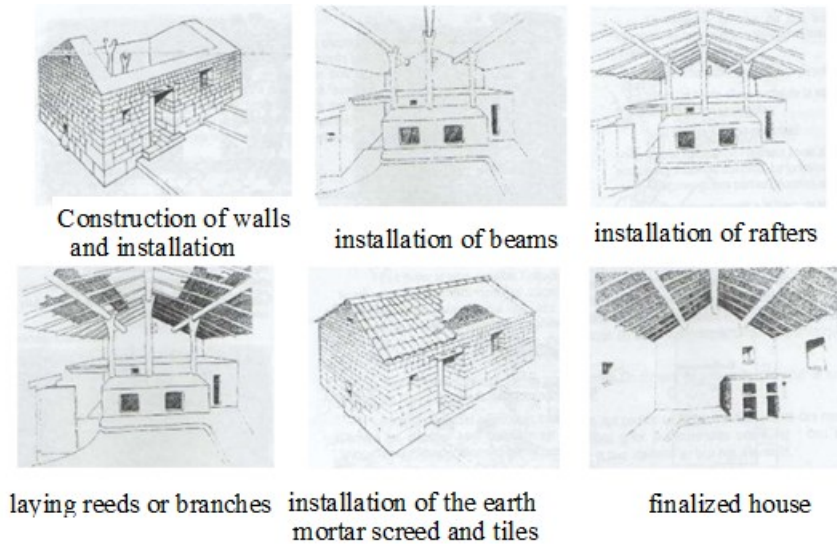


Fig. 8: Stages of building a Kabyle house (Mebarek. K, 2001, p. 165)

The traditional houses of the Kabyle region are today submerged by new imported construction typologies, reflecting neither village culture nor harmonious integration into the village landscape (Rmdane Toubal, 2008), the rural environment tends to modernize, with a habitat carrying new architectural forms and new materials, a symbol of progress, added to this, a break in the transmission of generational know-how, the interest shown by young people in vernacular architecture is becoming more and more reduced every day, these are a workforce reconverted for other needs.

The absence of a coherent safeguard policy from the public authorities has strongly reinforced the process of degradation of these villages, actions carried out on the ground remain limited in number and are carried out without rehabilitation methodology and without rigorous monitoring.

The rehabilitation of these villages will make it possible to safeguard this heritage and thus imbue future generations with the culture of their ancestors, it will, in fact, give them a second life by actively participating in their local development and making these houses a museum with the conditions necessary for populations to survive.

Discussion

In the distribution of equipment and elements the kabyle house meets the needs, fulfills the same functions and the distribution of rooms according to uses; places reserved for men (their needs and comfort), and places reserved for animals. In the aspect we take into consideration the topography of the region which is different from other regions, the steep mountainous area dictate the type of house and the use of available materials, the study showed the existence of some permanences concerning the shape, arrangement and dimensions of the spatial components, we note that all the secondary doors of the rooms share a main door, which is the main entrance for humans and animals. The house has several social connotations, the family insists that its door faces east, that is to say towards sunrise, to ensure its warmth, in addition, it places what is called “the threshold” at the entrance to the house a symbol of protection and security a boundary that separates the privacy of the family from the outside world.

Conclusion

The traditional architecture of the Kabylia region is one of the important monuments which illustrate the intellectual development of the people, whether from a social, psychological or economic point of view because it is dominated by a local character which expresses the standard of living simple of people, with these characteristics it is of great importance to highlight the authenticity of the society and its identity, is considered a material witness with local characteristics and characteristics imposed by nature and the climate.

Despite their differences in some details, they are characterized by unity in terms of planning and distribution of facilities, materials and construction techniques which express local traditions and values, a small house includes all the necessary amenities.

This architecture as built by our ancestors, responded to a certain constructive logic, but also to the needs of yesteryear, it was an evolutionary architecture, it transformed slowly as the needs of the occupants, it presented in particular the advantage of not distorting the landscape.

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