

THE SOCIO-CULTURAL DIMENSION OF URBAN PLANNING IN BOUSSAADA (ALGERIA)

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The Hodna region in Algeria is characterized by special climatic conditions with a temperature around 40 degree in the shadow. The soil is partly sandy and rocky and has little vegetation. Despite these harsh climatic conditions, people of Hodna have been designing comfortable dwellings for centuries. The settlements in this region are highly dense compact entities which reflect tribal patterns. The city is subdivided into districts that are in turn formed of neighborhoods. Lessons could be learned from this vernacular urban planning and architecture if their internal structure would be deeper examined. However, only few studies are available on this region. This research tries to emphasize the social and cultural dimensions in urban planning and follow the changing of the urban pattern through the analysis of the historical City of Boussaada, the major city of Hodna.

Keywords: Cultural and social dimension – urban design-traditional settlement – ksar-Boussaada.

Introduction

Boussaada is one of the prestigious presaharan cities in Algerian Hodna region (*fig. 1*). It contains heritage elements of national importance. The *ksar*¹ represents the heart of the city and has existed since the eleventh century (Behuroux, 1934).

In the 18th century, the first core “grew wealthy on socio-economic, cultural and urban plans” (Lesbet, 2005). The great diversity and the value of local architectural attributes remain the best witnesses of an art of building cities and of cities hard climatic conditions.

Before this period, Sidi Thameur, a notable pious person, planted palms and built a mosque in the place called before his arrival Ksar. The spatial organization of this traditional settlement shows the characteristics of a typical Muslim city where trading and transaction activities are kept out of the residential area in order to allow for more private activities to take place within the settlement.

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¹ Traditional settlement: the initial core of the city.

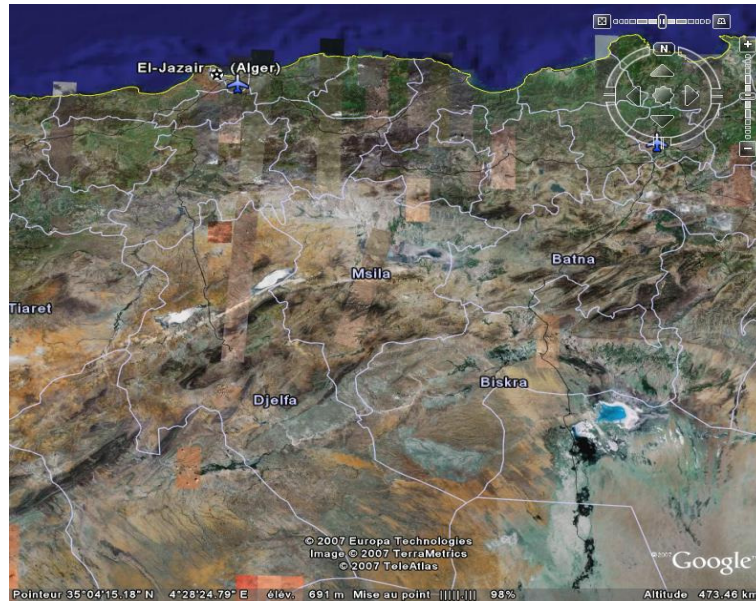


Fig. 1. Algerian Hodna region

Today, Boussaada is facing a fast urbanization associated to an architectural style that is completely opposed to the one in the traditional city. The proliferation of a Western model of urbanization, has deeply affected the original landscape and accelerated through its attractivity the devaluation and the reject of the local urban and architectural heritage.

This modern architecture and urbanism "are faced with complex of interferences between rapidly changing factors especially economic and technological, as response to multi-variant layers of changing parameters and new social needs" (M. A. Ebn Saleh, 2002)

It is true "that space is not any more evocative of memories and values that conditioned the attachment with the place, a fact that led to an incongruous relation between the people and the places" (Necib, 1986). In fact, "the cultural and social considerations are the secret and the spirit of the neighborhood and the city stem from the human touch" (Ali Osman Nejem, 2006)

1. The Ksar of Boussaada

In the Ksar, there are seven districts (*fig. 2*). Every area is generally inhabited by people of the same tribe, whereas the neighborhood is occupied by the same extended family indicating kinship ties and tribal affiliations as determinants of the social and internal structure of the city.

The traditional settlement consists of close groups of buildings, narrow foot paths, high courtyard walls and trees. Such a townscape gives maximum climatic protection for the buildings allowing people to move during the hot dry season.

Due to the same climatic reasons, the external surfaces of buildings are as small as possible. The amount of heat radiated or absorbed by the buildings is thus reduced to a minimum. Buildings are accordingly located close to each other so that each one would have many surfaces in shadow during different periods of the day.

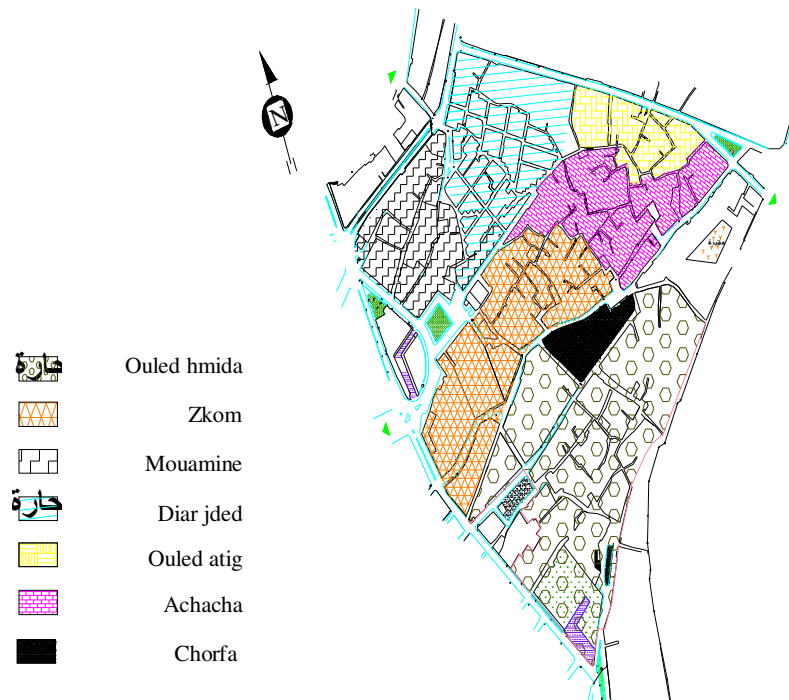


Fig. 2. Districts of ksar (Source: The author in 2007)

2. Characteristics of the organization of space

The Ksar is not designed by a town planner; it is rather a collective work of the community. It is thus reflecting concerns for the environmental, socio-cultural and economic aspects that interact altogether and characterize the global output, the organization of space and the urban structure.

The Ksar is thus entirely adapted to the daily life of the community and represents its recipient. The central sector, mostly used for commercial activities perfectly interacts with the place of worship that is the mosque.

The general plan is regular. However, the urban fabric is subdivided into districts, called *harates* that are distinct from each other and have compact forms. They are crossed by a network of alleys of different dimensions that express through their hierarchy various degrees of space privatness from the primary level that is the public space, to the most private areas that are the dead ends. If dwellings have large interior courts, some other open spaces are found between the *harates*, called **rahbates**.

3. The street design

Streets in the traditional settlement form a “tree-like” pattern while in the modern settlement they are organized in a “grid”. It is argued that the grid pattern is designed to maximize movement and accessibility, while the tree pattern aims to limit movement and control accessibility (Delaval, 1974, Rappoport, 1977). The streets width is not determined by fixed measures, but “it varies according to the traffic flow and the activities they are undertaken in that street”. (M. Benhamouche, 2003).

There is a perfect hierarchy of streets (fig N03) since they act as successive filters starting from the ksar entrance to the dead end, restricted for others except the members of the extended families. Also “the street pattern in the traditional settlement seems to reflect people’s concern for values such as climatic comfort, privacy security and recreation” (Chenaf, 2004).

4. House design

The house is the main dwelling unit of settlements and contains the main social and economic unit of the community in Boussaada: **the extended family**. It is the closed area where the family withdraws itself from society and preserves its privacy.

The typical vernacular house is inward looking. The main cells that are the rooms are arranged around the courtyard. “The whole design adopts a bipartite layout: a semi private space reception known as *sabet* is located backward, away from the male and public intrusion” (B. Khalfallah ,1993).

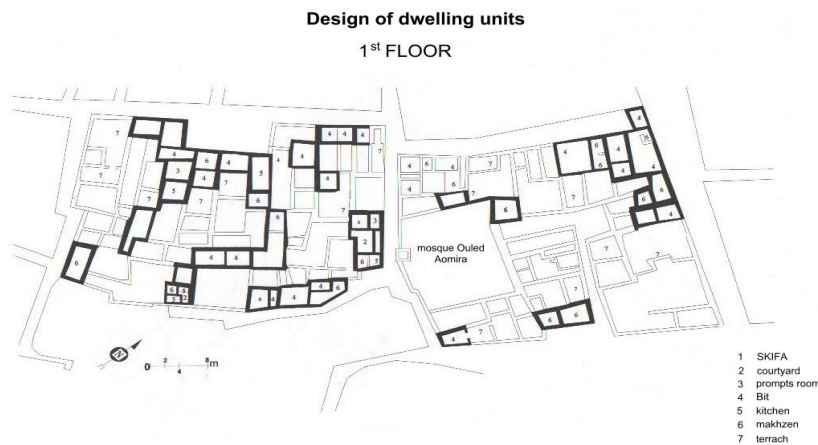
At the level of the house, the rooms open towards the courtyard reflecting the state of convergence and social cohesion among members of the family. “The social bounds between these members are regulated by the balance between the privacy requirement and the interaction with the community. The

urban fabric and assemblage of the houses are thus shaped by these social characteristics." (Kazem Kittani, 2004).

The house generally comprises one or two stores. Rooms surround the court (fig. 3). Some areas are reserved exclusively for women's circulation during the day, but are used by men for sleeping at night during the summer due to their coolness and refreshing air.



Source: the author 2007



Source: the author 2007

Fig. 3. Design of dwelling units

The rooms are the basic cells of the house. They are polyvalent and multifunctional spaces. Usually, they are placed in the northern and eastern wings with their doors opening to the South and West. Such an arrangement permits the rooms to be open to the warming low winter sun rays that flood them during most of the day.

The courtyard is the strictly private central space of the vernacular house in the Ksar of Boussaada (*fig. 4*). It is also the central component that organizes the traditional family life, and the most lively part of the house. It is the space where the women carry out most of their activities where the family gathers and social life takes place.

Therefore, this area is protected from the outside, either by buildings or by walls and cannot be seen from the streets or the houses nearby. The paved section of this area, is used for various daily activities and for sleeping during summer time.



Fig. 4. The courtyard (Source: The author in 2007)

5. Social interactions and built form

Social interactions and socialization play an important role in determining the shape and the design features of houses. For instance, the guest room is always conceived for male gathering and interactions. The house layout as a whole is arranged with regard to this room. Similarly, special arrangements are made for women's socialization.

This segregation is also reflected in the circulation system. While the streets are mainly used for men's movement, the flat floors are mostly used for women's circulation during the day. Women can move freely from one house to the other through the open terraces. The roofs are designed so as to allow women to interact and socialize without being viewed by men in the streets.

The woman role in society and their place in the household structure played a major impact for house design. The men socialization is another important factor in design.

Therefore, the need to allow women maximum freedom within their own quarter through the prevention of any outside intrusion led the private quarters to be inward looking and to have a little number or no external window at all. It is obvious that this spatial organization has also some climatic virtues. But this does not outweigh the primacy of the social considerations.

In contrast to the female space, the *Hodna* traditional society did not provide special places for men's socialization. Apart from the market, place for commercial activities and the mosque for worship and related activities, places like cafes are non-existent. Houses served thus as well as places for male interactions. They took place in the guest room. In other words, the areas of the house used by male visitors and guests were not viewed as an integral part of the living quarters.

Inward-looking, these houses may also mean the prohibition of the free-standing buildings that allows individuals to exhibit their wealth and social status through elevations and external appearance. Houses are thus packed against each other in compact blocks without any particular reference to individual properties.

Rarely does one refer to a house by the name of its owner, but by tribal affiliation or extended family although living in proximity. There is a permanent state of conflict resulting from disputes usually involving the whole family, a fact that reflects the concept of *assabia*, as explained by *Ibn Khaldoune*, which is a typical feature of the Arab society. In other words, tribal composition deeply marks the structure of the urban fabric of the *ksar*. This physical feature also regards climatic performance.

Compact building structure has some undeniable climatic properties as it reduces heat transfer from external walls to inside, and keeps many walls and streets in the shade during the major periods of the long summer days.

Streets and alleys in residential areas play the role of channels that direct air movement. Reliance on internal courts means that the orientation of building does not really matter whether it is south or north, east or west. What matters, however, is that the components of the house should be properly located in relation to the court. This is another reason for the inward orientation of vernacular houses. It is socially unacceptable to stay in and entertain friends. This is a social, a cultural and a religious necessity.

The courtyard is generally square and the sittings rooms open directly to it. For instance, gathering for social entertainment could occur at the sitting room and parts of the courtyard. It is common to use the open court in combination with spaces attached to it. In some cases the court is roofed but the function of the sitting spaces around is maintained as if the court is open.

6. The dilemma of social and cultural change

The city of Bousaada has suffered profound social and demographic changes as a result of a massive rural exodus in the 1980s. The disappearing of the extended family and of inheritance issues have facilitated the fragmentation of old houses. Ksar has been unable to resist the new situations. So the new families began to undertake transformations in their homes according to their needs.

Considering the stock of the 775 dwellings which underwent changes, we noticed that more than 90% of their occupants are out of Ksar as shown in the *table 1*.

Table 1

Average occupancy of houses and rooms

Origin of the occupants	Ksar	rural areas	Other
Number	38	608	129
percentage	05.04%	78.32%	16.64%

Source: the author 2008

These changes mark the deep social and cultural change that occurred in society, and which had a negative impact on the city as it reflects the existence of a whole process.

7. The process of change

The rapid urban growth of Boussaada (*fig. 5*) and the lack of noise control policies gradually destroyed traditional houses (*fig. 6*) and replaced them by concrete buildings.

These new buildings are far from fitting the old surroundings. Furthermore, they harm the microclimate of the settlement, and have a negative impact on the privacy of local people.

The town has witnessed many changes during the transformation process in the built environment from ksar to the modern settlement. The same idea was suggested by Nacib when he argues that: "the socio-cultural ruptures... have caused radical changes within the group" (Necib, 1986).

The local settlement cannot accommodate the rapid urban growth. Courtyard wells for instance, can no longer be used and water shortages are frequent. The majority of green spaces are degrading, a fact that made the micro-climate of the Boussaada's ksar to disappear. The need for the contribution of the researchers is best expressed by Al wakil who suggested that: "to save this identity is called has to save an identifiable art" (AL Wakil, 1987).



Fig. 5. The rapid urban growth (Source: The author in 2007)



Fig. 6. Destruction of the traditional houses destroyed (Source: The author in 2007)

Deep transformations are affecting urban fabrics and the layout of the house itself. The degradation of the urban structure in different (harates) of Ksar is not necessarily related to the effect of age being rather due to the lack of maintenance and the modernization process.

Table 2

Transformations of constructions with Ksar

Nature of the transformation	Percentage
Change of frontage	19.00%
Transformation of one or more parts	16.33%
Division of a large room in two	24.66%
Extension	28.50%
Others	11.50%

Source: the author 2007

Many houses are being renewed to suit commercial activities. Small shops and garages are introduced into the house replacing to the old ground floor rooms. Such transformations are the major signs of rupture and change in the built environment.

The old family structure is also undergoing changes. The large family fragments into smaller families because of the new social and economic patterns. The kinship ties are continuously degrading and new individualistic values are taking their place. The domestic life is therefore witnessing a profound metamorphosis and more traditional practices and activities are simply disappearing making room for a modern westernized lifestyle.

Conclusion

The end of this research proved that the Ksar of Boussada form one traditional settlement that clearly reflects the social and cultural principles operating in the city. Currently, this site is experiencing profound changes and influences especially from the outside factors. New occupants representing immigrants from rural cramped houses introduce chaotic and illegal changes, which completely distorts the original structure creating a non-uniform architecture and being poorly integrated within the site.

Therefore, it is high time to take action so as to preserve the urban heritage. The preservation must focus on socio-economic realities of the people and on the cultural value of urban and architectural elements. Among these:

- The colors derived from the environment
- The human scale
- The space hierarchy
- Benchmarks

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