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Sunlight and dwellers' emotions towards home: a phenomenological approach.

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SUNLIGHT AND DWELLER'S EMOTIONS TOWARDS HOME. A PHENOMENOLOGICAL APPROACH.

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ABSTRACT

This paper aims to study the impact of sunlight and daylight on the affective emotions of the dwellers towards their homes. The approach used for this purpose is phenomenological and is based on three concepts : homeliness or familiarity, appropriation, and poetic sublimation.

In this work, the home is considered as the behavioural setting of this research and two case studies are investigated: traditional houses of both Algiers Casbah in the coastal area of Algeria and the old city of Ghardaia in the northern part of its Sahara desert.

The preliminary outcomes presented in this paper are part of a broader research including people's reactions and attitudes, of hot dry regions and of Islamic culture, towards various daylighting and sunlight strategies in different working and living spaces.

1. INTRODUCTION

It is often asserted that the sun and traditional dwellings were in a perfect harmony whereas the last 50 years old produced built environment have marginalized most of the climatic factors. Nowadays, an important effort is increasingly made for recovering this lost relationship. Energy conscious, passive solar and high environmental quality designs are the current architectural ways translating this challenging attempt.

The use of sunlight and daylight to light up interiors of buildings is one of their main issues. Qualitatively natural light becomes obviously healthy and quantitatively energy economic. Several investigations demonstrated that sunlight and daylight are well-appreciated inside buildings. Moreover, they prove that lighting physical standards could not be sufficient and underline the importance of non physical factors (psychological, cultural...)[1].

A second related point is that these latter vary with context (climatic and cultural), season of the year, time of the day, persons and tasks. Thus, it would be pointless to deny the flimsiness of excessive generalisation reasoning in daylighting matter.

The hot arid region with sunny clear sky is the context of this study. In these areas, sunlight penetration is combined with thermal discomfort and glare problems. So, people attitudes would be different from the case of the northern region's societies where the presence of sunlight is more enjoyed.

Using a phenomenological approach this paper aims to study the impact of sunlight and daylight on the affective relation between home and its occupants.

In this work, the home is considered as the behavioural setting and two case studies are investigated: traditional houses of both Algiers in the coastal area of Algeria and Ghardaia in the northern part of its Sahara desert.

This preliminary outcomes presented in this paper are part of a broader research including people's reactions and attitudes, of an Islamic culture, towards various

daylighting and sunlighting strategies in different working and living spaces.

2. THE PHENOMENOLOGICAL APPROACH

Usually, qualitative aspects of daylighting are examined through sociopsychological surveys. In actual fact, the idea of using the same method for old buildings case is somewhat misleading seeing that they are not lived at present in the same way they were built for.

In that case, another way of looking at that claim is to examine the daily experience of home and the related affective meanings [2]. These ones are necessary in the mental world of home and can be interpreted as the territorialisation of domestic behaviour anchored in spatial archetypes. Three concepts allow investigating the affective meanings related to home :1) homeliness or familiarity, 2) appropriation, and 3) poetic sublimation.

Homeliness is firstly dealing with the intimacy level of a space provided either in circumstances of retreat or during successful social interaction. Also, senses (seeing, hearing, and smelling...) and the sequence of events in particular places are fundamental for homeliness feelings. Windows and fireplaces are some of the most striking examples yet of familiar home places.

Appropriation translates a self-identification of the inhabitant within his home and can be presented as a high level of homeliness. It is dealing essentially with space's occupancy and time of use. A case in point is the internal organisation of the various domestic activities. Myths, symbols and metaphors constitute the means of domestic poetic sublimation. The home is the centre of the world is a domestic myth.

This phenomenological approach was applied in the context of the Algerian old dwellings. Two case study were choosen the house of old Algiers namely the Casbah and Ghardaia' one.

3. THE HOUSE OF THE CASBAH

The Casbah is situated at the Mediterranean south coast where the weather conditions are pleasant during the 3 / 4 of the year. The site is an east-south-east side, which offers several advantages at both urban spaces and building levels.

The Casbah's house is of two storeys with a central opened courtyard (Figure 1). This latter is surrounded by covered arcades. Narrow long rooms essentially occupy the peripheral parts of the house. Each room has a central wide door and two small windows on either side of this door [4].

Windows are generally avoided on external walls. Thus, the courtyard is the principal source of daylighting. This female space favours a pleasant social life in as far as it permit for women to retry from outside views to do their work during day time without been cutting off from outside (sky, sunlight and air...) (Figure 2).

During the day, all rooms are opened toward the courtyard catching natural light as well as having views on this inside/outside space [5]. Often in big houses, the south

In the central part of the bottom wall of the room is situated the K'bou. It is a square niche facing directly the wide door (Figure 3). The K'bou is the more daylighted space inside the room. It is the best restful and quietful place to retry and converse in privacy. On its both sides, the space is darker and then used essentially to sleep.

As well as the courtyard, the room on the terrace roof (Menzah) is a good example of spatial appropriation in the Casbah's house. There, the domestic activities and female neighbouring contacts are done during the winter season, under sunrays with a fascinating view towards the blue sea (Figure 4).

The myth of paradise is strongly present in the mind of Muslim people [6]. The courtyard is a terrestrial image of it through the presence of the clarity of natural light, the freshness of air, the coolness of the fountain water and the greenery of plants (Figure 2).

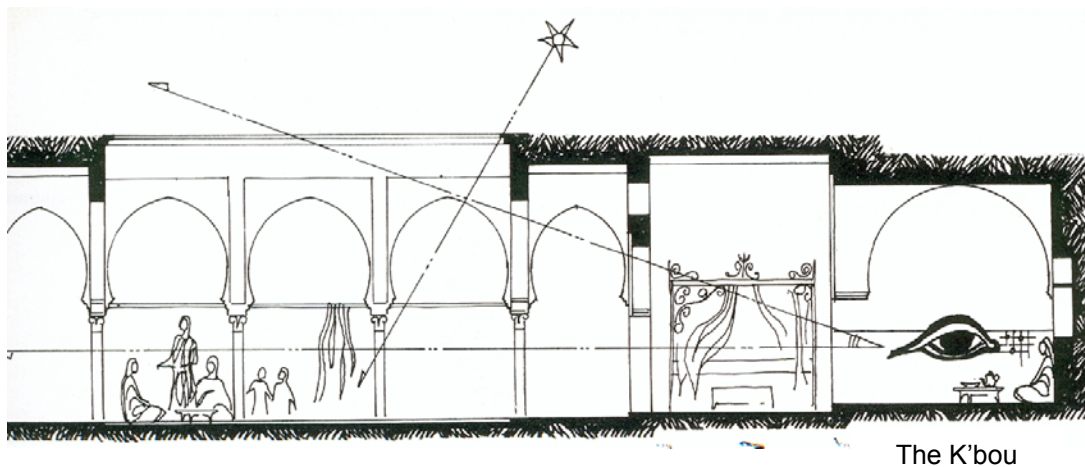


Figure 3: Relationships between the *K'bou*, courtyard, sky and sunlight (source [5]).

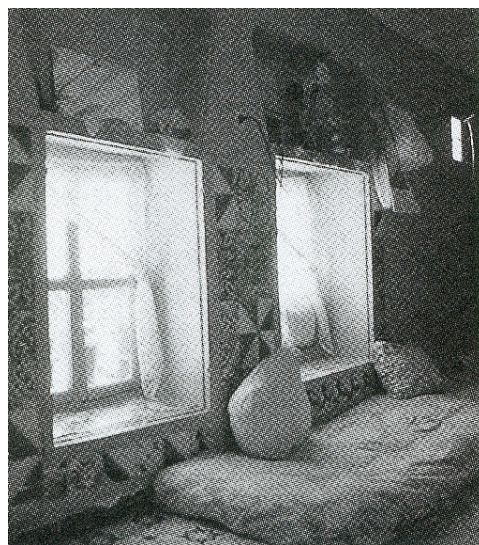


Figure 4: The terrace room used during wintertime has wide windows allowing sunlight penetration and a pleasant view toward the blue sea (source [5]).

4. THE HOUSE OF GHARDAIA

Ghardaia is one of the most important of the M'zab valley cities. It is situated about 600 Km south of Algiers, in the northern part of the Sahara desert. The climate in this area is hot and dry with a very sunny clear sky. The city is generally located on a hill facing south-east.

The house is of two storeys with a central covered courtyard. An opening located at the centre of the courtyard ceiling allows penetrating sunlight inside (Figure 5). This aperture is covered by daytime and opened by night during the summer and the opposite in the course of winter month's [8]. The different spaces surrounding the courtyard are indirectly daylit [9].

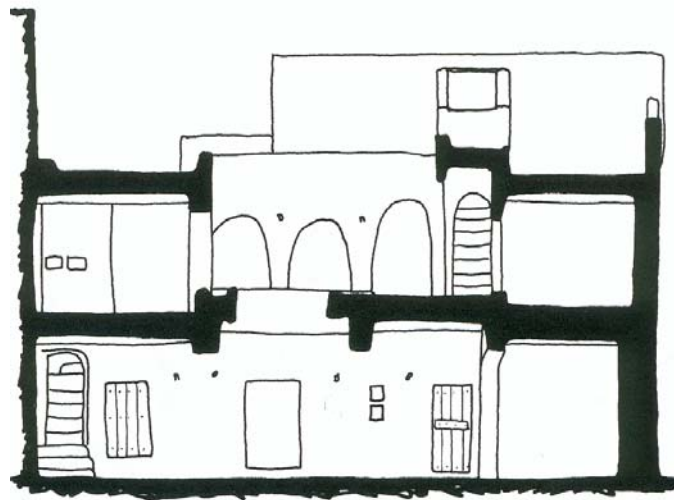


Figure 5: A cross-section on the house of Ghardaia showing the covered courtyard with an aperture at its ceiling centre (Source [7]).

The courtyard and the covered arcades at the first floor level present familiar spaces with an important intimacy level [10]. They provide familial privacy and social interaction at once. Also, the sunlight related appropriation of these spaces is revealed by the fact that the former is used during the hottest period and the latter during the coldest one.

A particular place in the house is the women's reception room namely Tizefri (Figure 6). It is widely opened toward the courtyard with south or south-east orientation for catching the best natural light. Its use includes female guest's reception or weaving or even being a restful place for a giving birth woman. It permits so an individual and/or familial privacy and appropriation.

At the first floor level, the covered part (Ikomar) is an example of the seasonal appropriation of a living space. It is occupied during the wintertime when sunlight is softer than the hottest season (Figure 7). The house of the M'zab valley is characterised by a dark and luminous displaying occurring dynamic rhythm of life and influences considerably the time and use of its various spaces (Figure 8).

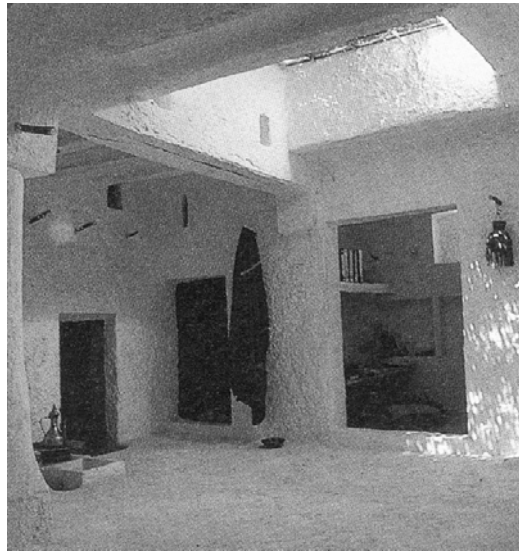


Figure 6: View inside the courtyard. Sunlight penetrates through the ceiling aperture in directly toward the *Tisefri* (women reception room) door (Source [10]).

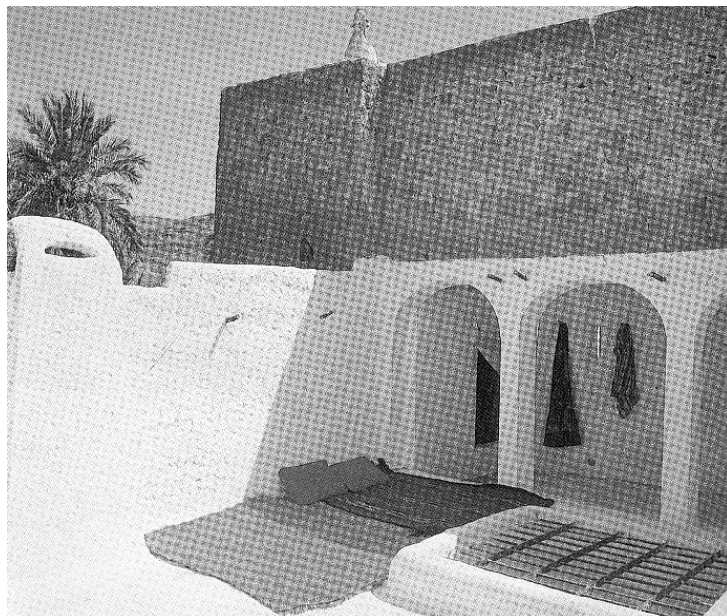


Figure 7: The covered arcades at the first floor, namely *Ikomar* is used by daytime during the cold season and by nighttime during the hot one (Source [10]).

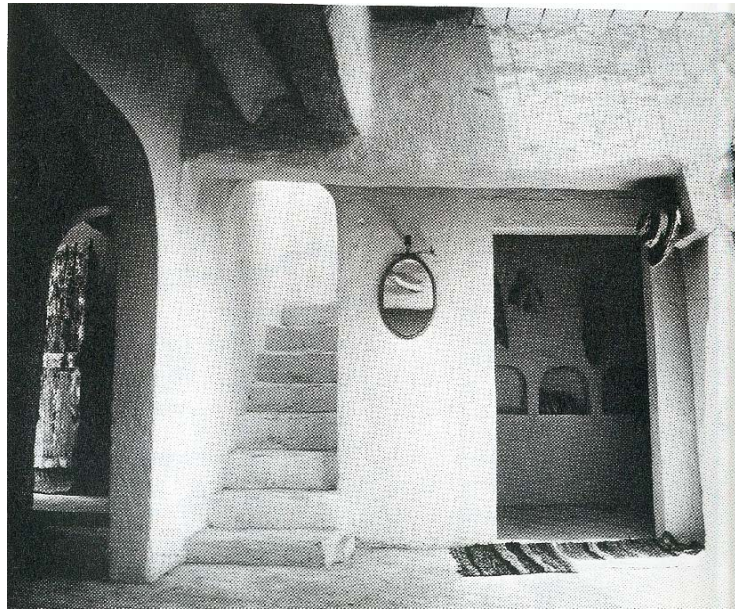


Figure 8: Dynamic sunlighting and daylighting characterisation of the interior home spaces: The bent entrance (left), stairs (centre), courtyard ceiling aperture (top right) and the *Tisefri* (right) (Source [10]).

From a symbolic point of view, social structuration and orientation are harmoniously joined inside the house. The spatial female/male relationship corresponds strictly to the north-south axis (*Tisefri*-courtyard). The male territory is outside form where sunlight is coming and the female's one is the dark interior both lighted by man (sunlight) and herself (moonlight) [7].

5. CONCLUSION

Traditional dwellings reveal the importance given to the qualitative aspects of sunlighting. This paper highlights several affective meanings of the home closely related to sunlight.

The studied case studies are traditional houses catching sunlight at their centres through a courtyard spatial configuration. But due to the climatic difference of their locations one is opened whilst the second is covered. Each of them includes several spaces of various levels of homeliness, appropriation and poetic sublimation. It would be impossible to exaggerate the importance of the courtyard for the home's affective feelings and meanings related to sunlight.

Also, it should be stressed that particular places with south or south-east orientation are often chosen as the most familiar for the inhabitants. Equally, it should not be forgotten that spiritual and cultural myths, symbols of sunlight were revealed as structurally convergent in the mental world of the home.

Finally, the idea of recovering the impact of sunlight on the inhabitant's affective relations to home could go beyond the objective of exploring daylight appreciation's to either the rehabilitation process of old buildings and the whole design of contemporary dwellings.

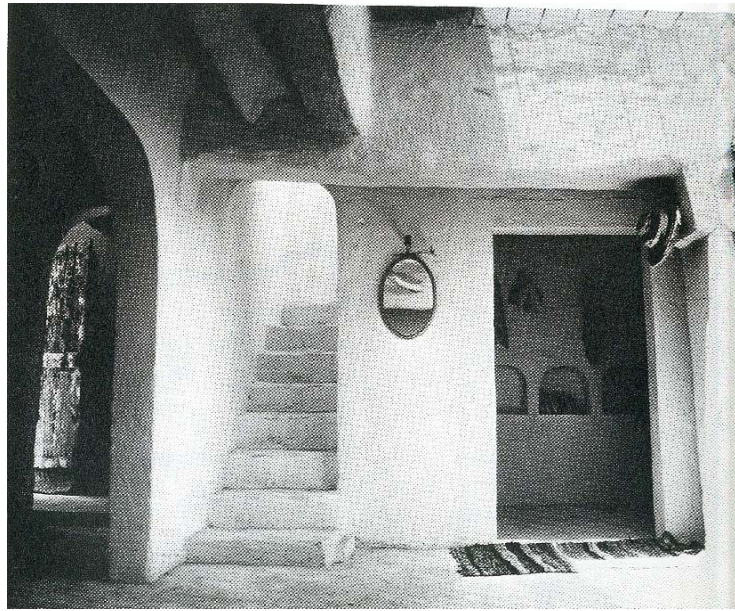


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