

ABSTRACT

The aims of this thesis are the research about the cities made with earth - *ksar* (sing.), *ksour* (pl.) – of the Eastern High Atlas Morocco. In this area we observed how the architecture of the culture and of the landscape in the pre-Saharan oasis of Southern Morocco, turned over the High Atlas, implanted into new territory, located in the high mountain but with many diverse geographical and environmental conditions, adapting to new environment but without losing its formal characteristics that define it clearly inside this cultural landscape.

The geographic framework of the research is focused from Mdagra oasis, located in the upper stretch from the Ziz River to the Outat valley, affluent of the Moulouya River, located on the south and north respectively of Eastern High Atlas. Separating both parties find this great geographical barrier of more than 80 km. in length, topped by the peak Mount Ayachi (3,474 m.). The local population is mostly of Berber origin and still holds the two types of traditional life: the nomadic type, that use the natural steps of the mountains through the river beds to move from one place to another, looking for pasture for cattle; and sedentary lifestyle that occupying the cities made with land that are the subject to this research.

Therefore based on the study of the geographical framework, through the analysis of existing maps, we have determined the main lines of communication between the two sides of the mountain, placing them as a means of cultural transmission. Also is important study of historical context, and together with the ethnographic approach, helped us to understand the situation that lived in this place since the eighth century, when the crossing of Tizi n'Talghoumt marked the route of the caravans linking Fez with Sijilmasa until the sixteenth - eighteenth centuries, age with constant tribal warfare, various droughts in the Moroccan South, and various epidemics of plague, that forced a part of population living in the Mdagra oasis to migrate to the north looking for better future.

Once certain geographical, social and cultural conditions, the study and analysis of the buildings, morphological, formal and constructional characteristics, has allowed us to establish connections between the oasis and Mdagra Outat Valley. Following from an estimate number of 48 Ksour between the two areas, based on the registration made by Charles Foucauld in 1888, this thesis presents the results of 81 finally existing in this area of activity.

The study and analysis is structured in three parts. The first is the study of the city as an urban entity, makes comparisons with the classical cities of medieval times as well as other Islamic cities in North Africa, which has led us to determine the own model city in this region. The second part focuses on the study of the functional units that meet the social needs of the population, so that, after studying all Ksour we can determine which are the equipment and services they collect. Finally in the third part, building system and materials involved in its implementation is discussed, showing how these cities built with basic materials taken from their immediate environment, and constructed with traditional techniques, based on the use of rammed earth and adobe, adapt to the new demands of the geographical environment, but without changing the essence of its forms.

The research shown in this thesis has been developed within the framework of the research project led by Professor Dr. Pablo Rodríguez-Navarro, title *Housing Earthen Architecture in the Northern High Atlas (Morocco)*, carried out within the Institute of Heritage Restoration of the Polytechnic University of Valencia.