The Salvatierra and Calatrava la Nueva castles: two remarkable constructions in the use of the peninsular eruptive rocks (Volcanic region of Campo de Calatrava, Ciudad Real, Spain)

1. INTRODUCTION

The presence of volcanic material from the Campo de Calatrava has always been present in the daily lives of the inhabitants of this area, from the immemorial time. Not only have taken advantage of its own landscaped setting but have benefited from specific conditions given to them by volcanoes. The diverse materials eruptive that, sublimated and con mayor o menor extensión, recubren a las formaciones geológicas de la región central de la provincia de Ciudad Real, son objeto desde hace ya bastante tiempo, de una intensa explotación. Pero no solo el hombre ha buscado los materiales duros, o sea los constituidos por las rocas basálticas, sino que también ha aprovechado los materiales tóxicos constituidos por los antiguos mantos de cenizas y lapilli, es decir, por los pequeños materiales eruptivos de proyección.

E. Hernández Pacheco. (1932) La región volcánica central de España.

2. ERUPTIVE MATERIAL IN THE VOLCANIC REGION OF CAMPO DE CALATRAVA

In the eruptive history of Calatrava volcanism have created a series of distinct volcanic deposits, according mainly to their chemical composition and mineralogical, but also the type of eruptions that have generated. This continental volcanism is characterized by basic and ultrabasic magmas (alkaline magmas very rich in CO2, and a very low silica content - less than 45% -- (González Cárdenas, website ). Ancochea (1983) difference between:

- Olivine basalt, lava and pyroclastic fall
- Olivine nephelinite, lava and pyroclastic fall
- Olivine melilititana, lava and pyroclastic fall
- Limburgitas, pyroclastic fall
- Olivine leucitite
- Hydromagmatic deposits

3.- THE SALVATIERRA CASTLE

Located on the slope of the Sierra of Calatrava, is an imposing fortified complex built by Muslims around the X or XI century, on other existing construction of Roman origin Strategically built on a steep hill of quartzite about 800 m altitude, is opposite the castle of Calatrava La Nueva, covering one of the most important natural routes that cross the Sierra Morena and unite the Central Plateau with the Depression of the Guadalquivir (Toledo and Cordoba). It was divided into several successive and independent venues and at different levels, adapted to the morphology of the terrain and using rocks for defense. On the southwest side of the castle is located the homenade tower, about 12 meters high and built of quartzite, limiting the use of volcanic stone ashlar (spatter) to the robust parts, as door and window jams, together by mortar of “cal” and sand. The tower is split in two during the Lisbon earthquake, lets see what their inside with vaulted chambers, cisterns and large balcony.

Salvatierra Castle. Private property.

5. CONCLUSION

The geological history of the Campo de Calatrava has resulted in some materials susceptible to exploitation and use by man, creating a perfect symbiosis between nature and the anthropic landscape. Specialization has been observed depending on the materials, checking that the volcanic materials are located in areas where the quartzite is not suitable for high rigidity. We have also verified the existence of an aesthetic especially with the use of spatter, highlighting the most important units or more noble, resulting in a significant contrast between the white quartzite and the red or black lava.

REFERENCES


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