Strategies for Climate Control in Sardinian Vernacular Building Heritage in the Reports of the Travellers of the XIX and XX Centuries



Maddalena Achenza, Leonardo G. F. Cannas, Ilaria Giovagnorio DICAAR – University of Cagliari Via Marengo 2 09123 - Cagliari - Italy labterra@unica.it

ABSTRACT

This paper presents a study about bioclimatic characteristics of vernacular earthen building heritage in Sardinia. The main purpose of this study, according to Project VerSus' main aim, was to understand the logic beneath climate control elements in vernacular architecture, and earthen architecture in particular, in order to eventually apply them in contemporary architecture. The research method was a deductive process based on reviewing some reports written by Italian and foreign travelers that visited Sardinia in the 19th and 20th century. The useful information, including vernacular buildings characteristics and occupancy when this heritage was intact, had been analyzed through bioclimatic knowledge. Furthermore, in order to highlight bioclimatic features of vernacular earthen heritage, a comparative analysis with the vernacular stone building heritage, expression of a different climate context, had been done. Interesting elements in order to achieve thermal comfort conditions have emerged, especially regarding the strict relationship between vernacular buildings physical configuration and their inhabitants' occupancy.

Keywords: Vernacular building heritage, bioclimatic, Sardinia.

 $A chenza\ M.,\ Cannas\ L.G.F.,\ Giovagnorio\ I.;\ New\ Generation\ Earthern\ Architecture:\ Learning\ from\ Heritage\ International\ Conference,\ kerpic' 13$