

**O 3. SURVEY ON STONE DEGRADATION AND USE OF DIAGNOSIS FOR ITS
CONSERVATION**

Laura Shumka^{1*}, CigdemCiftci², Fatma Kunt³

¹*Department of Architecture, Albanian University, Tirana, Albania*

²*Department of City and Regional Planning, Necmettin Erbakan University, Konya, Turkey*

³*Engineering and Architecture Faculty, Necmettin Erbakan University, Konya, Turkey*

Email: shumkalaura@gmail.com

ABSTRACT: In this contribution are presented the approaches for the conservation of stone as it is fundamental for the preservation of our architectural components and cultural monuments. Stone degradation in the Post-Byzantine monuments of culture has been counted as one of the most serious threats to the integrity and values. From the immoral time due to its unique features, the stone is considered as one of the most resistant materials, while there are many factors that contribute towards its deterioration. The aim of this paper is to present the current state of the stone materials used in construction of Post-Byzantine monuments, reflecting in particular the rate of deterioration in the St. Mary's Monastery in Narta at the southern part of Albania, the main deterioration factors, such as air pollution, the presence of soluble salts due to proximity with marine area, and biodegradation. Following the field measurements, the external construction elements as colonnades, walls, supporting basins, etc, are affected loosing respectively > 50%, 30% and 20 % of the original dimensions. It is trusted that the description of the state and degradation factors serves as the basis to present the importance of a right diagnosis regarding the origin of the current deterioration and further on propose the appropriate solution for address the problem and conservation approaches.

Keywords: Degradation, stone, monastery, conservation, heritage