

## **GLI EFFETTI DELL'ACQUA IN AMBIENTE COSTIERO. Il caso delle *Piscinas das Marés* di Álvaro Siza a Porto.**

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### **Abstract.**

How to conserve reinforced concrete structures continuously exposed to salt water environment and to the action of the tide? How to preserve the original shape and material authenticity? This contribution part of a wider research project by the authors, intends to analyze the criteria and strategies adopted by Álvaro Siza to contrast the effects generated from salt water on the reinforced concrete structures of the *Piscinas das Marés* (1960 - 1966) located on the rocky coast of Leça de Palmeira, a few kilometers north of Porto and listed in 2011 as a National Monument and included in the Indicative List of World Heritage by UNESCO, in 2017. They have recently been subjected to an intervention which is expected to be completed by the end of 2020. The intention is therefore to investigate the causes of the decay behind the planned and ongoing works, analyzing the materials (the original ones and subsequent repairs), the degradation/deterioration effects generated by the marine environment and the solutions adopted for the conservation of reinforced concrete in a chemically and physically aggressive context.

**Keywords:** *Álvaro Siza, Piscinas das Marés, conservation, concrete.*