

# **MICROCLIMATIC MONITORING IN ARCHAEOLOGICAL AREAS: FROM DESIGN TO USE. THE CULTURAL SYSTEM OF AN ARCHAEOLOGICAL AREA IN CAGLIARI**

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## **Abstract**

The valorisation of archaeological areas requires that the display design respects the issues of cultural contextuality, mitigation of environmental effects and use. The conservation of ruins and findings in the open air depends on external factors – environmental and microclimatic conditions – as well as intrinsic factors – the durability of the materials, the techniques of building and decoration. The balance between use and conservation means achieving compatibility in terms of accessibility, reduction of the interference of on site operations and the ability to understand the site. In the case of archaeological sites, obviously, the only possible reuse is that aimed at valorisation and fruition. The control of the conditions of use is a fundamental aspect in the process of conservation of the site. At present, the optimal threshold between conservation and valorisation is yet a challenge for the protection and use of archaeological sites. The aim is to obtain the design of architecture and plants in harmonious integration, both functional and fitting for the preservation of sites. The paper aims to understand the role of diagnostics and microclimate monitoring in designing the use of the archaeological areas. In fact, monitoring is a fundamental and mandatory activity both in the preliminary analysis and during the use of the sites for mitigating the risk factors, the fulfilment of preservation activities and managing the stakeholders of conservation.

**Keywords:** *archaeological site, risk assessment, microclimatic monitoring, preventative planned conservation, valorization*