## Antonio Candeias

## **Biographical note**

Graduated in Technological Chemistry and postgraduate in Chemistry applied to Heritage by the Faculty of Sciences of the University of Lisbon. PhD and Aggregate in Chemistry by the University of Évora. An expert in surface chemistry, ee is Vice-Rector for Research and Development of the University of Évora, Associate Professor with Aggregation in the Chemistry Department of the School of Sciences and Technology and Director of the HERCULES Laboratory of the same University, Scientific Coordinator of the José de Figueiredo Laboratory of the General Direction of Cultural Heritage and Director of the Portuguese Platform of European Infrastructure in Heritage Sciences (ERIHS.pt Infrastructure) of the National Roadmap for Research Infrastructures of Strategic Interest. Author of more than 200 international articles, he is member of the National Council of Culture as Individuality of Recognized Merit.

## <u>Title</u>

Science and Heritage - conceptions, misunderstandings and opportunities

## Abstract

The technical and material study of patrimonial assets is a fundamental factor for its valorization and conservation and involves as a rule multidisciplinary teams composed by historians and researchers in the areas of chemistry, physics, conservation sciences and biology. The challenges are massive and it is necessary to create areas of intersection between disparate scientific areas and to develop transdisciplinary research strategies. Scientific studies, from the macro to the micro and nano / molecular scale, stimulate a deeper understanding of the cultural heritage in its multiple aspects: as a testimony of historical, artistic and social concepts; as objects with their own structure and materiality; and as surfaces and interfaces with specific behaviors when exposed to external factors. However, misdirected investigations often result in studies of no value from the point of view of history, knowledge or conservation of heritage. This communication intends to present the challenges, limits and opportunities facing the Heritage Sciences today.