CLEA - Reviewing and integrating methods for the Conservation of European architecturaL finishes in urban hEritage townscApes

Neglected use of materials in conservation and restoration of building surfaces are reducing authenticity value in many urban landscapes. Colour Science, Architectural Paint Research and Instrumental Analysis Techniques have been mostly applied in the study of architectural finishes. However, there's not a standard operational framework to inform decision-making in finishes conservation. CLEA aims to address these shortcomings and to preserve authenticity by the use of innovative paths (1) to improve the methodology for the characterization of architectural finishes, (2) to understand historic pigment use, mortar composition and render texture, (3) to produce a tool for decision making when selecting materials and pigments for the conservation of the historic aesthetic. CLEA will focus in Alexandria, Egypt. Domestic buildings (end 19th-early 20th) were built by Italian, Greek, British and French immigrant architects and are located in the 'European city' district. A large range of analysis techniques will be used at the University of Padua, integrating non invasive/on-site (portable XRF, Raman and multispectral imaging) and off-site analysis (Optical Microscopy, Scanning Electron Microscopy, XR Diffraction, 3D laser confocal scanning microscope and radiocarbon dating). Results will help to understand and to preserve original aesthetics by conservators, organizations and people. CLEA actions are aligned with the EU Council on European Cultural Heritage Strategy, encouraging a wider understanding of heritage values and reinforcing European global leadership in the word. The project has active interest in conserving the vision of European building heritage, goal on sustainable cities and communities within the United Nations 2030 Agenda for Sustainable Development. CLEA will strongly contribute in the development of my research career, increasing interdisciplinary expertise, transferable skills by advanced training and providing inter-sectorial experience by secondment.

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Total EU Contribution: Euro 275.209,92

Call ID: H2020-MSCA-IF-2020

Project Duration in months: 36

Start Date: 01/01/2022

End Date: 31/12/2024

Find out more: **https://cordis.europa.eu/project/id/101024606**