



CERAZUL: ASSESSMENT AND DEVELOPMENT OF MATERIALS AND TECHNIQUES FOR THE CONSERVATION OF HISTORIC AZULEJOS

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ABSTRACT

CerAzul aims to study, evaluate and optimize the treatments used in the conservation and restoration of architectural tiles (azulejos). The interventions that will be considered in more detail are the consolidation of the ceramic matrix, the re-adhesion of the glaze and biscuit fragments, and the volumetric reintegration of azulejo lacunae. The scientific state of the art on the application of these treatments to architectural ceramics will be discussed. The most common materials and techniques used nowadays in these interventions will be depicted together with some considerations about their use. The strategy to be followed intends to evaluate the efficacy, compatibility and durability of the treatments with the azulejo substrate in order to obtain systematic information that will allow professionals in the field to choose the best solution for their interventions. A set of existing and promising materials for the conservation of tiles is planned to be tested. Effectiveness and compatibility tests will be performed on treated azulejo samples and these ones will be subject to accelerated ageing in a climatic chamber where their degradation will be monitored. New formulations, alterations to existing ones, or new materials will be developed in order to tentatively obtain treatments with improved properties.

KEYWORDS: CerAzul, conservation, azulejo, durability, compatibility.

1. INTRODUCTION

Azulejos are a major Portuguese contribution to the cultural heritage of the World. However, a sizeable part of this rich heritage is lost every year through neglect and continuous decay. The degraded panels can be subjected to various restoration measures: cleaning; desalination; removal from the support; biscuit consolidation; tile fragment adhesion; glaze to ceramic adhesion; reattachment of the tiles to the support; tile and panel lacunae filling; and chromatic reintegration. The main concern nowadays is on how to select compatible and durable products and methods to use for the conservation and restoration of architectural glazed ceramics – mainly in the consolidation, adhesion and lacunae filling interventions. This is the subject we propose to address within the FCT-funded CerAzul project (PTDC/CTM-CER/119085/2010), so that the azulejo heritage may be passed on to future generations, as much as possible as it was received from our forefathers.

As mentioned before, three main types of restoration interventions will be considered: tile consolidation, re-adhesion of glaze layers and fragments; and lacunae repair. The first intervention type requires a consolidating material, the second an adhesive, and the third a filler, or filler plus a coating. Treatment materials are available on the market but limited information is available to



direct the choice of the conservator-restorer about their effectiveness, compatibility and long-term...

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