

CÓDIGO: 1.6**STONE CLADDING FACADES.
QUALITATIVE ANALYSIS OF CONSTRUCTIVE AND AESTHETIC
DEGRADATION PROCESSES.****Vale, Clara Pimenta do^{1*}**

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ABSTRACT

In Portugal, the use of stone rainscreen cladding façade systems has increased substantially in recent decades, mainly from the 1990 enactment of thermal comfort legislation. This coating began to be seen as a qualitative enhancement solution in buildings of different functions, from public administration to housing developments.

The observation of that large production, with time passed serving as real test platform, allows the evaluation of its behaviour, from a constructive and aesthetic degradation point of view, with the verification of a large asymmetry apparently not related to the building age.

Thus, several questions arise, if the commonly accepted idea of long-term quality of these coatings would be correct; whether there are any combinations of characteristics that could alone be responsible for the appearance of certain anomalies; and, if these data could be included in the design phase, could it be a guarantee of a higher quality.

The aim of this work was to initiate the systematization of this initially intuitive analysis, departing from the treatment of an extended database of Oporto buildings, and then identifying and characterizing aspects that could influence the process of aging and decreased aesthetic qualities, such as: construction date, the type of stone used, thickness and geometry of the plates, its joints alignment or offset, support and restraint systems, type and thickness of thermal insulation, facades solar orientation, plates location in the facade, relationship with other elements and materials, shape of the building and its relationship with immediate surroundings (natural and built). For some parts of the city it was possible to make this assessment of the conservation status with a ten years interval (2005-2015).

The analysis allowed the identification of the persistence of certain anomalies in some specific conditions.