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Traditional technique for the conservation of the stone: artificial patinas in Spain

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The patina called 'scialbatura' had been longly study in several monuments and stone sculptures from Italy and Greece like the Parthenon, but there is a lack of this kind of studies in Spain. However some works had been carried out in a few monuments, that have shown that this traditional technique was also common in Spain. The term patina refers to dark yellowish layer that covers external stone surfaces. There is a controversy about the origin of the patinas, some of them can have a biologial origin and some of them are artificial ones. This study is centred in the denominated artificial patinas. Several buildings of the central area of Spain had been selected to study this kind of treatment of the stone. This treatment usually is found covering marbles and limestone. The patinas had been characterised with the aim of have a better knowledge of this technique.

Numerous historic and aesthetic reasons claim the protection of the patinas applied in the past. Indeed technological reasons confirm this protection policy, as it is the difference in the disaggregation of mineralogical components that is observed in the part of the substrate where patina lacks. The loss of the patina increases the deterioration rate of the substrate. That is why its presence is beneficial to the conservation of the stone. Thus, the study of the deterioration mechanisms of either natural or artificial patinas is necessary to establish the guidelines necessaries to their preservation.