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The influence of slaking time on lime putty

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ABSTRACT

A new interest in the preservation of mortars, plasters and decorative finishings in façades has emerged in certain European countries in the past thirty to forty years, with a view to understanding how they have evolved throughout History. There is a growing interest in learning about the composition and execution techniques of original surfaces and a number of Heritage Institutions have encouraged the systematic application of conservation in this area.

Up to the XX century, limes were often used in work as lime putty. After the transformation of quicklime into lime putty the latter was stored to maintain its characteristics. Tanks or large pits were used to store the lime putty, always covered with water in order to prevent its carbonation. The quality of the material was guaranteed for many years with this process.

The evolution of the storage processes for materials has led to a change in this procedure and in most cases binders are now used as powders.

The influence of the maturation time of lime putty has been studied. The aim of this paper is to present the physical and microstructural changes on lime putty due to the effect of ageing, focusing on the particle size of the portlandite crystals and on the reorganization of the internal structure.

KEYWORDS Mortar, air lime binders, lime putty, slaking time

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