

OR-22**A Natural Soft Polymer Used as Humidity Barrier as Well as to Compact Ancient Raw Materials**

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Humidity coming from underground as well as environment goes into antique raw materials by capilarity, and it is one, if not the most important factor, for damaging the cultural goods all over the world, mainly when those so appreciated monuments are, for example, either cave or mural paintings, not to mention sculptures made out from materials with a certain degree of porosity. This paper describes how to obtain a warm polymer solution, which if it is sprinkled on the surface of treated materials penetrates through them by the same capilarity, origin of its damage, to create a solid barrier against humidity, coming either from underground or environment, and compacting the loose material at same time that it becomes cool and solid. This sort of porosity plug is not at all rigid and it does not form a definite bound between treated and untreated material portions, which creates different adhesive forces and finally treated portions are separated as a whole from untreated ones. This polymer may be easily extracted too from the materials using warm water (60⁰-80⁰C), because it remains soluble at higher temperature, but insoluble in cold water (below 40⁰C). Finally, this paper shows some examples of mexican ancient raw materials quite successfully treated after longer than 7 years by now, and it mentions some evident candidates to be treated among all the cultural treasures found all over the world (1, 2, 3).

Keywords: Natural polymer, humidity, cultural inheritance.