

## **Applicability of Nanotechnology for Conservation of Archaeological Paintings: A Review.**

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### **Abstract**

Nanotechnology is one of the most prevalent and revolutionary technologies in use worldwide. Nano-materials are currently being used in various fields, such as health, information technology, agriculture, apparel etc., to increase the expertise of their products. In addition, nanotechnology has been proposed as a field mainly used and subjected to various archaeological researches. Consequently, methods based on nanotechnology are being used to conserve archeological artefacts based on stone, wood, fiber and metals. These paintings are widely attracted by those interested in archaeology and arts. However, paintings deteriorate due to physical, chemical, and biological factors. As a result, paintings are susceptible to discolouration, cracking, murals on plaster splintering, microbial attacks, etc. Such issues can be managed and overcome by the application of nanotechnology. Moreover, nanotechnology can improve the methods currently used to conserve paintings. The interest of scientists has been directed to use nano-materials due to the properties of being very small in size, highly mobile, high reactivity etc., instead of raw materials used conventionally at present. The current study focuses on how nanotechnology is used to conserve and restore paintings worldwide. Conservation of murals with archaeological value has become a crucial problem in Sri Lanka. This study will provide fundamental knowledge of utilizing nanotechnologies already used in developed countries to conserve paintings of archaeological value in Sri Lanka.

**Keywords:** Nanotechnology, Nanomaterial, Paintings, Deterioration, Conservation

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