

The Effect of Gas Pollutants on Museum Environment: Case Study of an Oil Paintings in Ethnographic Museum, Egypt

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Abstract : Ethnographic Museum in Cairo- Egypt is a place of valuable collections (manuscripts, paintings, textiles and other ethnographic materials), the museum experiences serious neglecting with unacceptable display and storage conditions, the museum is located in Tahrir sq., which consider a high traffic area where pollution levels exceed the acceptable levels in museums. The materials used in manufacturing the display cases are expected to be source of many pollutants which affecting the sensitive oil paintings objects in the galleries. 24 diffusion tubes (12 NO₂, SO₂ & 12 O₃) have been used in "winter 2014 and spring 2014" for monitoring museum environment with three cases "outdoor & indoor and in the gallery display". A series of analytical techniques with scientific tools: Ion Chromatography have been used to assess measurements and effects of gas pollutants on the museum which help us to make good assessment for the damage of oil paintings objects and the condition of the museum and understand the effect of the museum environment on the deterioration of the sensitive oil paintings.

Keywords : environment, museum, paintings, ethnographic, conservation

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