

## The Environmental Factors Affecting the Archaeological Buildings in Egypt

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In Egypt there are many monumental sites and stone buildings that suffer from several aggressive environmental factors of deterioration (chemical, physical and biological). These Deterioration effects mostly resulted from the environmental factors such as sun rays, moisture effects, seawater, human activities, and can cause a great harmful appearance that leading finally to destroy these sites completely. So, the sites must be periodically investigated through many scientific techniques in order to check their decay conditions and to define the most suitable conservation approach; non-destructive, harmless methods recommended for preservation. From specialized point of view, this study investigates some samples collected from some of these sites through using some specific techniques to evaluate their decaying conditions such as XRD "studying the mineralogical constitutes", AAS "studying the chemical constitutes", SEM "studying the morphological features" and Vp technique "studying the durability index ". Our results proved that all deteriorated symptoms affecting the Egyptian archaeological sites were essentially due to the interaction between the deterioration factors dominated in these sites. These symptoms such as Scaling, Crusting, Soiling, Crumbling, Salt crystallization, Effective cracks and micro fissures and Clearing out of stone components. Finally, effective methods, materials and preservation measurement could be taking into our considerations for restoring and maintenance these monuments.

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