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Title

A Study of Scientific Methods Used for Applying Fired Colors on Archaeological Leaded Stained Glass, " To Set Up a Scientific Procedure for its Restoration and Conservation " An Application on Selected Object

Summary

"Stained Glass" that kind of art which spread in the palaces of Egypt, and combined the technique of interlock and coloring with different firing paintings and pigments. According to the reached state of deterioration, that the existing stained glass windows in the palaces of Egypt which are rich with many artworks, and include high quality techniques of stained painted glass production.

The problem of the research lies in; these artworks which executed by fired colors, applied on the archaeological stained glass, their components affected of various internal and external deterioration factors, which exposes them to many different deterioration aspects more than the glass that they applied on. Sometimes these factors may cause total losing of these fired colors. What make it necessary to study these deterioration factors, to find out modern scientific methods to restore and conserve the colors applied on the stained leaded glass, which represent the most dangerous problem for the stained leaded glass works.

The research aims to study the history of fired colors applied on the stained glass, and the most important aspects of damage that appear on these colors to reach the scientific basis to treat, restore and conserve this cultural heritage, through the using of theoretical, scientific, analytical, experimental, and applied studies. Those have been showed through dividing the research into four sections as follows:

Part I

Historical and theoretical study of the fired colors used on leaded stained glass surfaces and the factors and aspects of their deterioration

Part II

Documentary, analytical study of different colors layers applied on the surface of archaeological leaded stained glass panels (the subject of this research)

Part III

Experimental study for restoration methods and materials proposed for the treatment of archaeological leaded stained glass panels (the subject of this research), and coloring oxides used in coloring completion.

Part IV

A practical, applied study for the treatment of archaeological leaded stained glass panels (the subject of research) and methods of conserving of archaeological glass panels.

Then the search is over displaying the results that have been reached through the study, and viewing the recommendations of the research according to its results, and previous studies in this area. Which we tried to contribute in the development of technological, specialized study in the field of restoration and conservation of archaeological, leaded, stained, glass windows and to have an active impact to the workers and specialists in this field.

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