

The laser technology and its applications in the copper metal embroidery threads cleaning and treatment field – Analytical experimental study

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1. Abstract:

The great development Encouraged the use of laser applications for the treatment and restoration of the copper metal threads embroidery textiles with safety technology without the use of any chemicals or solutions so we select this experimental study as the modern applications of laser science techniques in the field of treatment and conservation of archaeological textile embroidered with metal thread has been proved to be an effective way to extend the life of the object and improve its surface and visual properties. Has become an urgent necessity because of the difficulty of the case of these acquisitions of the unique nature of the decorative composition and physical appearance, in addition to the many sources to access the laser beam and its high efficiency in the cleaning of metals in general and also proved that many disadvantage of the traditional cleaning methods, whether mechanical or chemical, and do not fit with the special collection of metal threads embroidered textiles, Therefore, the study was carried out by emphasizing the scientific and technical coordination between the textile conservators and the laser science specialist to choose the best types of laser and its suitability with the object case and how to control the operating conditions with the general deterioration condition and other organic components materials during and after cleaning and the use of laser technology seemed to be the optimal study to achieve the desired goal with it could become one of the most useful studies for conservators in the field of treatment and restoration of textiles embroidered with copper, gilded or silver metal threads Study showed many results that were discussed and interpreted scientifically by examination and scientific analysis for The laser technology, which seemed to be the optimal study to reach the desired goal with a view on the compatibility with our holdings in order to preserve our heritage , which is an open book of history because it contains a wealth of information about our culture ,history and technique .

Keywords:

Laser, cleaning, threads, Metal, Corrosion