

٢				رقم البحث في القائمة
مشترك				نوعية البحث
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fayoum	cairo	fayoum	fayoum	الجامعة
Archaeology	National institute for standard	Archaeology	Archaeology	الكلية
Restoration of monuments	Chemical metrology	Restoration of monuments	Restoration of monuments	القسم
				منشور أو مقبول للنشر
The Academic Committee Administration of the General Union of Arab Archaeologists Journal, vol.7, Issue.1, p.198-218.				مكان النشر
January 2022				تاريخ النشر
Restoration and conservation of a unique archaeological carpet from prince Mohamed Ali palace museum in El manial, Cairo (case study)				عنوان البحث
نعم				مستخلص من رسالة ماجستير او دكتوراة
<p>Historical carpets represent one of the most artistic treasures, which ought to be saved for the next generations. Therefore, this paper presents scientific strategies to conserve a unique archaeological Carpet, which was kept under uncontrolled storage conditions. The carpet is highly decorated and dates back to the modern era, 13th AH/19th AD. It was stored in Prince Muhammad Ali Palace Museum in El-Manial (Cairo) under Nr°.90/112 Record 2. As this carpet suffered from severe damage, an appropriate plan had to be drawn up to restore it properly using microscopic and spectroscopic techniques. Fourier Transform Infra-Red (FTIR) spectroscopy was used to identify the kinds of dyes, while X-ray diffraction (XRD) was used to identify mordant. Optical microscope and Scanning Electron Microscopy (SEM) were used to identify the kind of fibers, their condition, and surface morphology. The AutoCAD program was used to document the whole carpet with all its decorations and aspects of damage. The obtained results confirmed that the threads used in the Carpet are wool fibers; the fibers suffer from severe dehydration, brittleness, and fragility; also, the fibers have cross-slits and thick deposits on the surface. Moreover, the presence of Madder, Indigo, and weld dyes were found. The mordant used were alum, potassium dichromate, and Ferrous sulfate. The deterioration factor was dust alongside the other physical factors. The treatment of the archaeological carpet was performed by removing old erroneous restoration works, moisturizing fibers, attempts to dry cleaning, washing, drying, consolidating by fixing on a new linen fabric supporter which was stretched on a wooden frame(according to the safety requirements), and finally sterilizing by Nano-silver.</p>				ملخص البحث باللغة الانجليزية