Abstract:

The 4th holy burial chamber of Imam Reza (A.S.) also known as Shir o Shekar, a worthy artwork in the Astan-e Qods Razavi Museum, Mashhad, has been studied in the present project. Various materials including silver, gold, brass, iron and wood have been used to construct the ZRYH. Almost all parts of the plant with beautiful and elegant designs embossing and engraving inscriptions of the Quran are found around the windows to the upper parts on the gold plate. The Enshrine was installed between 1959 to 2000 on gravestone of Imam Reza (A.S.) and after the damage due to such wear and tear and damage to the foundation and structure of the coating and the silver and gold crowns, has been replaced with another Enshrine .The fourth sepulcher or Enshrine, after almost 5 years maintained in the Treasury, has been transferred to Museum for public display in 2005. In recent years, in different parts of the injuries appeared consistent with the progress of the work, the individual is seriously threatened. The aim of this study was to investigate and determine the quantity and quality of the damage it causes the most damage and damaging resources, in order to eliminate or minimize them, and ultimately the recommendations of conservation and restoration. The research was based on a survey of applications and tools used in the laboratory (Wet chemistry, Metallographic and Instrumental analyzes, including SEM), respectively. The results of this study showed that large amounts of damage related to the relocation and installation of ZRYH from gravestone to treasury and then to Astan-e Qods Museum. Also, during different periods, the effect of different materials, and inadequate rinsed over time was significant. The combination of these factors, particularly the impact of environmental conditions and fluctuations in humidity and emissions in the environment should also be added. Metal parts used in this particular silver Enshrine, was heavily influenced by all these factors and types of corrosion such as Stress Corrosion Cracking, Localized Corrosion, and Galvanic Corrosion. Corrosion products content combinations of silver sulfide (Acantite) and silver chloride (Chlorargyrite). During this study, according to monitoring museum environment and assessment different effects of environmental condition on ZRYH, recommendations to prevent and minimize damages were proposed: use a glass container for display to isolate enshrines the exchange temperature, humidity and air emissions. LED lamps instead of halogen lamps, the use of water and air pollution control devices, and so on. To clean metal parts using a combination of mechanical and chemical methods, using a very fine abrasive powder, finally coated by "Frigilene lacquer".

This study has five chapters. Generally the first chapter introduces the research and the second chapter of the general characteristics enshrine especially fourth Razavi shrine. Materials and methods used in this study as well as third chapter. The results of these methods and discussion and conservation suggestions are included in fourth chapter. In the fifth chapter final conclusion as well.

Keywords:_Enshrine the holy shrine of Imam Reza (AS) – silver ZRYH - silver corrosion - environmental pollution - environmental monitoring - protection.