

Learning from the consequences of inappropriate lifting methods: Case studies at the Mosaic Conservation Lab in Hama, Syria

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Introduction

A large number of detached mosaics, that are stored or exhibited in the museums of Syria, as in most of the Eastern Mediterranean region, have been subjected to serious damage and losses of the tessellatum, caused by the inappropriate lifting methods that were undertaken in the past.

The insufficiency of training and the absence of the conservation discipline from the academic programs of the Universities of Syria have resulted in the lack of specialized personnel and the poor understanding of the mosaics and the architectural context in general. Thus, there are usually no records of the condition of mosaics prior to lifting and of the methods and the materials used for the detachment of the tessellatum in the past. However, oral information by workmen and technicians, combined with macroscopic observation of the mosaics allows us to understand and reconstruct the methods used in the past and to assess the damage that has been caused by these practices.

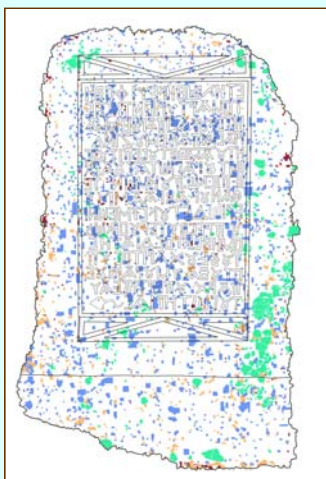


Documentation of the losses

Several mosaics were macroscopically examined at the archaeological museums of Hama, Aphamea, Maraat and at the gardens or the national archaeological museum in Damascus in order to assess the losses that can be attributed to inappropriate lifting methods of the past. A large section of mosaic, which is a Greek inscription from the early Christian church of Abu Rubeiss, which was treated and mounted at the mosaic conservation laboratory at the archaeological museum of Hama, is a representative example of the losses that have been caused during lifting and transferring the mosaic to the museum storage.

The Mosaic Conservation Laboratory was established at the museum of Hama in 2007 in the framework of a co-operation program between the European Center for Byzantine and Post Byzantine Monuments (EKBMM) and the Directorate General of Antiquities and Museums of Syria (DGAM). A series of training courses that were undertaken in 2009 – 2011 as part of this program, enabled a closer examination of surface losses and weathering features on mounted mosaics as well as the examination and study of the back side of mosaics that were lifted and stored on the facing cloths without mounting. Most of the losses and surface weathering features that are presented here, were documented at the museum of Hama and few at the museums of Aphamea, Maraat and Damascus.

Mapping of losses caused by inappropriate lifting methods on the inscription from the Early Christian mosaic of the Basilica of Abu Rubeiss



The losses were documented and mapped at the back side of the tessellatum on a photomontage that was prepared in the Hama mosaic laboratory as part of the training process

- Cracked/broken tesserae
- Remains of surface flakes of tesserae
- Total loss of tesserae
- Remains of original mortar on the surface



Past lifting methods

Mosaics were lifted in the past in large sections which were rolled or smaller ones that were transferred and stored upside-down on flat bed. They were usually faced with cotton cloth and occasionally with other coarser cloths that were available on the spot. The usual adhesives that were used for facing were various types of rubber glue that are available in the local market.

Once the facing was dried the surface of the mosaic was pounded with hammers in order to detach it from its bedding. The mosaics were transferred to storage where they were stored in rolls or placed on wooden boards and piled on the floor, often without any separation padding between the boards. The most usual padding used between mosaic panels for transfer or storage was cushioning polyester foam which often deteriorates and stains the mosaic surface.



Losses and weathering features

The major types of damage that occur in mosaics as a result of the past lifting practice and materials are the following:

- Mechanical damage from pounding has caused severe cracking of the tesserae, the loss of the edges, or their total loss. In several areas the tesserae are cracked or completely broken and in many cases only a thin flake or small fragments from the surface remain attached to the facing cloth. The main body of the tesserae is either sitting loose above these fragments or has been completely lost.
- A large number of loose tesserae are found on the back surface of the mosaics as a result of inappropriate packing and transfer of the lifted mosaics. The condition is usually worst in mosaics that have been stored in rolls, as additional stresses are imposed which cause the loosening and disorder of tesserae.
- There are remains of glue on several mosaics, which cause discoloration of the tesserae that poses a serious aesthetic problem and some times difficulty in the readability of the tessellatum.
- The strong adherence of the glue and the difficulty in the removal of the facing cloth often causes the loss of the original mortar between the tesserae and loss of edges and flakes from their surface. The result is a mosaic surface with rounded and cracked tesserae.
- The rubber glue often deteriorates and loses its adhesives properties, especially when stored in hot environment. The tesserae are becoming loose and often completely lost from the facing cloth.
- There is usually loss of tesserae from the edges of the mosaic sections which make their re-assembly problematic and occasionally impossible.
- The oversized sections of detached mosaics and the difficulties in handling transferring and storing them continue to cause further losses of tesserae.

