TECHNICIAN TRAINING FOR THE CONSERVATION OF MOSAICS

PART 2
THE CONSERVATION OF DETACHED MOSAICS

Introduction to detached mosaics

Livia Alberti, Ermanno Carbonara, Thomas Roby
Detaching mosaics is a conservation method, especially popular in the past, to present a mosaic in a museum, or to make a mosaic more stable and durable if it is presented on site, or to avoid total loss in the event that the site is going to be destroyed by modern constructions.
Risks of damage due to the detachment of mosaics

Deformations and distention of the original mosaic size

Loss of tesserae along the cutting lines

Loss of the original layers of mortar

Loss of the mosaic's authenticity
Different methods to detach a mosaic

Detaching the tessellatum with a roller

Detaching the tessellatum in sections

Detaching the tessellatum and preparatory layers in sections
Detaching the tessellatum with a roller

The mosaic is separated from its preparatory layers and laid on a roller.

**ADVANTAGES**
- Reduction of cuts to the mosaic or detachment in one single section

**DISADVANTAGES**
- Separation of the tesserae from the original layers of mortar
- Risk of distention of the original mosaic size
- Heaviness of the mosaic sections
Detaching the tessellatum in sections

The mosaic is detached in sections without its preparatory layers.

**ADVANTAGES**
- Reduces risk of distention of the original mosaic size
- Reduces weight of mosaic sections

**DISADVANTAGES**
- Separation of the tesserae from the original layers of mortar
- Separation of the mosaic into several sections
- Risk of losing tesserae along the cutting lines
The mosaic is detached with all or some of the preparatory layers in sections or in pieces.

**ADVANTAGES**
- Conservation of several of the mosaic's preparatory layers
- No risk of distention of the original mosaic size

**DISADVANTAGES**
- Separation of the mosaic into several sections
- Risk of losing of tesserae along the cutting lines
- Heaviness of the mosaic sections
Primary operations of detaching

Cleaning and stabilization of the mosaic to be detached
Primary operations of detaching

Facing of the surface with one or more layers of fabric and adhesive
Primary operations of detaching

Detachment of the mosaic
The different supports for a mosaic after detachment

Storage structures without a new support

Reinforced plaster of Paris panel, mounted on a frame

Mortar panel of cement reinforced with iron (reinforced concrete)

Various layers of modern mortar applied to the ground, wall or other fixed structures

Composite panels, often stratified, of synthetic materials
Storage structures without a new support

- a Tesseræ inverted and adhered to the fabric
- b Fabric/paper
- c Storage structure
Reinforced plaster of Paris panel, mounted on a frame
Reinforced plaster of Paris panel, mounted on a frame
Reinforced plaster of Paris panel, mounted on a frame

Reinforcements used for plaster of Paris panels

Woven hemp

Unwoven hemp

Steel wire grid
Reinforced plaster of Paris panel, mounted on a frame

Frames used for plaster of Paris panels

Wooden frame

Wooden frame with reinforcement bars and metal straps
Mortar panel of cement reinforced with iron (reinforced concrete)
Mortar panel of cement reinforced with iron (reinforced concrete)

Examples of the structure of a reinforced concrete panel
Mortar panel of cement reinforced with iron (reinforced concrete)

Examples of the structure of a reinforced concrete panel
Mortar panel of cement reinforced with iron (reinforced concrete)

Examples of the structure of a reinforced concrete panel
tesserae

steel bar

concrete mortar

Ermanno Carbonara © 2006. Ermanno Carbonara

Ermanno Carbonara © 2006  Ermanno Carbonara

tesserae

steel wire grid

steel bar

concrete mortar
concrete mortar
tesserae
steel wire grid
Various layers of modern mortar applied to the ground
Composite panels, often stratified, of synthetic materials

Panel made up of polyurethane foam between two layers of resin reinforced with fiberglass
Composite panels, often stratified, of synthetic materials

Panel made up of aluminum honeycomb between two layers of resin reinforced with fiberglass
After detachment, mosaics are:

- stored in a repository
- reinstalled on site in their original location
- exhibited in a museum
After detachment, mosaics are:

- stored in a repository
- reinstalled on site in their original location
- exhibited in a museum
After detachment, mosaics are:

- stored in a repository
- reinstalled on site in their original location
- exhibited in a museum
MOSAIKON is a partnership of four institutions: the Getty Conservation Institute, the Getty Foundation, ICCROM, and ICCM. The aims of the project are to strengthen the network of professionals concerned with the conservation, restoration, maintenance, and management of mosaic heritage in the southern and eastern Mediterranean region; provide training to a variety of individuals involved in mosaics conservation and, more generally, with the management of archaeological sites and museums with mosaics; work with national and international bodies to provide a more favorable legislative, regulatory, and economic environment for the conservation of mosaics in the Mediterranean; and promote the dissemination and exchange of information.