TECHNICIAN TRAINING FOR THE CONSERVATION OF MOSAICS

PART 1
THE CONSERVATION OF IN SITU MOSAICS

Creating graphic and photographic bases for graphic documentation

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Graphic documentation for conservation

Graphic documentation enables the accurate mapping of different types of deterioration phenomena of a mosaic and makes it possible to rapidly assess their extent and to pinpoint the location of previous and current interventions.
Creating a base is the first step in graphic documentation.

There are two types of bases:

Base drawing
Base photograph
**TYPE OF BASE**

**Base drawing**

**METHODS TO PRODUCE A BASE**

Set up a regular grid of strings over the mosaic and draw the mosaic directly to scale, using graph paper, based on measurements of the mosaic taken using the grid.

Draw the mosaic decoration by transferring to scale, on a sheet of millimeter graph paper, the geometric structure originally created in constructing the mosaic, and complete the decorative motifs by hand within the design structure (only in the case of geometric types of decoration).

Photograph the mosaic in a single frame or by sectors and draw the mosaic on a transparent sheet overlaid on the single photograph or on the photomontage.

Obtain a copy of a drawing of the mosaic taken from a book or an archive.
Creating a base drawing

Measured drawing using a grid

The steps
Remove dirt and sand from the mosaic surface with a soft brush, if it is possible to do so without damaging it.
Set up a grid over the mosaic by stretching strings across it at regular intervals to create squares.

Place adhesive labels on the mosaic surface where the strings intersect to mark the same points on the base drawing.
Draw with a pencil on the tracing paper the outline of the mosaic and its simplified design, by taking measurements of the mosaic and transferring them to scale on the tracing paper, using the graph paper grid. Also mark the grid intersection points.

Millimeter graph paper
Tracing paper above
In the case of a complex geometric or figurative decoration, draw it with a pencil on tracing paper using a grid of smaller squares.

Squares of 10 cms
Transfer the mosaic drawing with a 0.1 or 0.2 ultra-fine point pen, on a second tracing paper by retracing the outline made on the first sheet.

Label the base drawing with the following information:

- **ID:** Mosaic ID
- **BASE MADE ON:** Date
- **TITLE:** Leave empty on the base
- **DATE:** Leave empty on the base
- **PREPARED BY:** Leave empty on the base

Also add the graphic scale and an arrow indicating North.
Creating a base drawing

Direct drawing using the geometric structure of the decoration

The steps
Creating a base drawing

Tracing a mosaic on paper over a photograph

The steps
Creating a base drawing

Make a copy of a drawing of a mosaic taken from a book or an archive

The steps
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<th>TYPE OF BASE</th>
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<td>Base photograph</td>
<td>Take a single photograph of the mosaic and rectify it, if possible.</td>
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<td>Photograph the mosaic by sectors and make a photomontage.</td>
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Creating a base photograph

Take a single photograph of the mosaic

The steps
Take a photo of the mosaic from a high vantage point, with a metric scale as part of the image, and print the photo as it is to obtain a photographic base.
If possible, rectify the photo by computer to obtain a more correct image and make the photographic base.
Rectification of a single photo

Transform the photograph with an appropriate software.

With photo rectification, mosaic sides return to their correct proportion (3m x 2m) and angles to their correct degree.
Rectification of a single photo

Area of greatest image distortion

Schematic representation of mosaic photographs taken at three different heights

Effects of the photo rectification
Different techniques to take a photograph from a high vantage point
Creating a base photograph

Take photographs by sectors and create a montage of the photographs

The steps
Divide the entire mosaic surface in square or rectangular sectors, of identical size, marking on the mosaic surface the sector corners with adhesive labels.

Make a schematic drawing of the mosaic with the sectors and note their numbers and dimensions.

Mosaic sectors marked with adhesive labels

Schematic drawing with sectors and their dimensions
Photograph each mosaic sector from a high vantage point, including in the frame the complete area with at least a border width of 20 cm. To obtain a good photo for the photomontage, maintain a height of 2 m from the surface of the mosaic.
Photographic montage

All mosaic sectors before photo rectification

All mosaic sectors after photo rectification

Mosaic image after the montage of all the photographs
Base photograph from a photographic montage
Three different base photographs

From a single photo

From a rectified single photo

From a photographic montage
Creating a base photograph

Obtain a copy of a photograph of the mosaic from a book or an archive

The steps
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.