



INTERNATIONAL COMMITTEE FOR THE
CONSERVATION OF MOSAICS

RESTORATION OF MOSAIC IN AL ZAHIRYA LIBRARY

Arranged and Presented by : Maher JBAAE



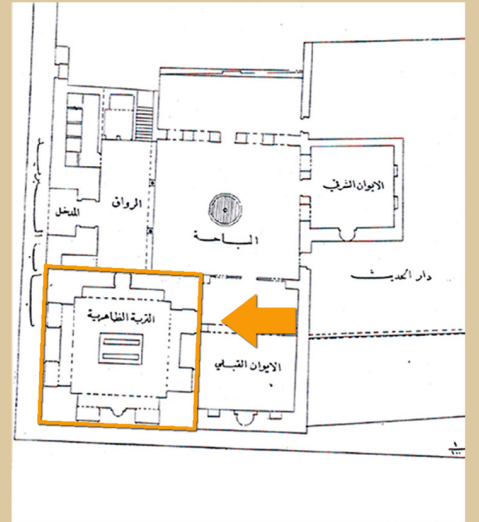
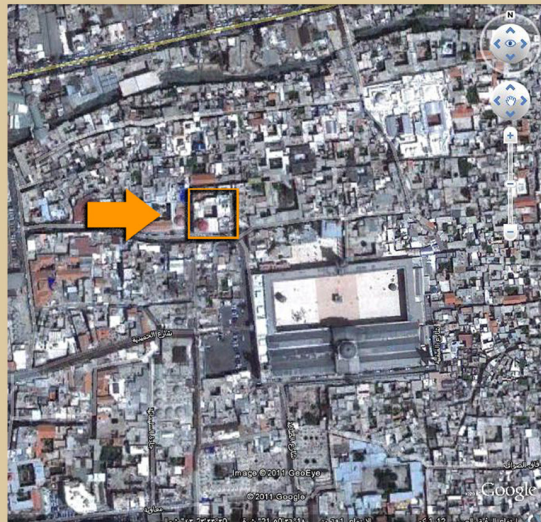
D.G.A.M SYRIA
MOSAIC CONSERVATION LABORATORY



The art of mosaics, especially the mural mosaic, considered one of the most important decorative arts, which was characterized in the Islamic era, especially in the Umayyad period.

As we can see in the decorations of the Dome of the Rock in Jerusalem, and in the Umayyad Mosque in Damascus.

This art has continued during the Mamlouk period, and it appears clearly in Al Zahirya library in Damascus, where the local mosaic artists imitated the Mosaics of the Umayyad Mosque to decorate the walls of hall in the library, to be similar to the level of the mosaics in the Umayyad mosque.



Al Zahirya Library is considered the oldest public library in the Levant, located in Damascus, in the vicinity of the Umayyad Mosque. Originally, it was a large house for one of Damascus princes, and in 1277 A.D king /Al Saeed/ - Al Zahir Baybars's son - bought this house to turn it into a school then built the famous dome, and buried his father there. In 1280 A.D, in the reign of Al Sultan /Qalawun/ in the Mamlouk period, king /Al Saeed/ died and buried near his father /Al Zahir Bebars/. This school continued flourishing throughout the Mamlouk period. In 1889 A.D, during the Ottoman period, Al Shekh /Tahir Al Jazaere/, has collected all the available books from the schools of Damascus under the dome of Al Zahirya Library.

The mosaics of the dome, considered one of the most important decorative types, which has a distinct artistic historical depth in Damascus. Subjects of the mosaics includes houses and palaces with various roofs, inclined or conical, in addition to topics of a variety of plants which taken from the nature of the city of Damascus, such as flowers, fruit trees, cypress and palms, in addition to some geometric decorations. In 2008, the Mosaic Conservation Laboratory in the General Directorate of Antiquities and Museums DGAM in Syria undertook all the restoration works of the mosaics in this important site, which has been the first work which done in Syria - probably in Arab countries - in the restoration of mural mosaic by local hands, and it was done by a fund from the Government of Kazakhstan, on the grounds that Al Zaher Baybars was born in Kazakhstan.



Mosaic area is approximately 80 m2, covered parts from the walls, in height of 4 m from the ground and a width of 1.70 m, in addition to 6 arches and the roof of the Mehrab in the middle of the south wall.

The corners of the hall are columns in the form of Zik Zak with four facades, it was designed in this form, to carry the arches and the high dome, and it was decorated with mosaics at the same height.

Tesserae are hand-made glass produced in Damascus, made in variety dimensions /from 7 mm to 1.3 mm/, and in variety of colors, black, red, light green, dark green, yellow, brown and blue, in addition to some stony cubes white and pink, which used to formation of some leaves and twigs of trees, and they used the silver cubes especially in the decoration of houses and palaces roofs, gold cubes have been used extensively as a background of the subjects.

For preparation of walls, they put first layer composed of lime mortar mixed with powder of lime stone, with large quantity of hay in thickness of 2-3 cm, then the second layer composed of lime mortar mixed with powder of lime stone but free from hay, in thickness of 2 cm, which the paving of the artist or the mosaic worker. So the artist first draws the subject on the mortar by natural colors, which called /Sinobya/, and then he paves the tesserae over these colors.

During this long time, Mosaics has tesserae is made on it, in accordance with the daily possible production of the exposed many continuing damaging factors, like rain leakage, dust and materials from cars exhausts and factories.

In addition to structural damages like the detachment of layers, due to the earthquakes which passed during this long time and vibration resulting from large cars around the building, which despite its simplicity, was enough through this long time to cause damages to the structure of the mosaic layers. In addition the infiltration of water and humidity that led to detachment of large parts from mosaic, separations was either between the first layer and the wall, or between the second and the first layer, or between tesserae and the second layer, whereas the latter case caused the fall of many cubes, and thus the appearance of (Lacunas). In addition to deep cracks extended in some cases along the width of the mosaic, and some human damages, such as using metal nails for fixing wooden frames on the edge of the mosaic, which penetrated the tesserae and the lower layers, and caused damages in many places, and one more reason is fixing electric lines which used for lighting the hall by nails inside the mosaics.

It should be mentioned that some previous interventions by the previous guardians in the last century, such as replacement of the lacunas by using the gypsum mortar then paint it to be similar to the original, these interventions has helped in stopping the continuation of damage and consolidation of the mosaic.



The restoration works lasted for 8 months, from the end of 2008, to the mid of 2009, according to the below inclusive program:
- Entire documentation for all accomplished works. - Studying and definition all the problems by the technicians. - Selecting best solutions, methods and materials to treat the existing problems.
- consolidating the mosaics in the places of damages and detachment, by using suitable materials to match the original mortar.

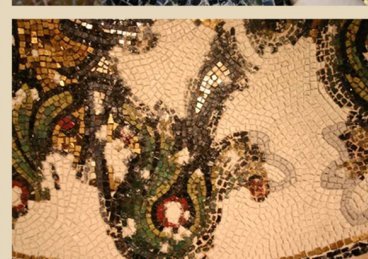
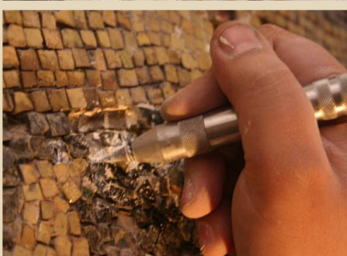
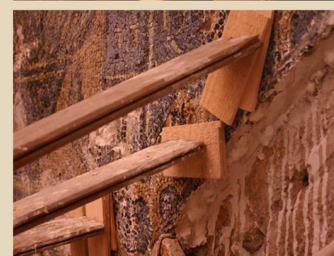
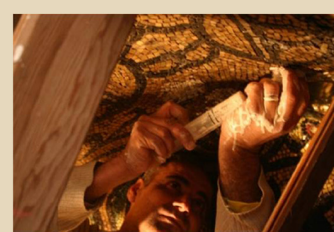


The second phase, which lasted for five months:

- Simple cleaning for the surface of the mosaic, to remove dust and dirt, then consolidate all the separated parts, by injecting the mortar and resin acrylic between the tesserae, and the deeper layers. In places with high risk of collapse we used wedges of stainless steel, to re-fix the layers of the mosaic to the wall, and these operations are accompanied with wooden support pieces pressed to the separated parts of the mosaic - the process of return - to prevent bulges, and in this phase, we faced a big problem, that the first layer which covered the wall, was very porous, fragile and damaged, due to the large quantity of hay in the mortar.

- Remove all the wrong previous human interventions, like nails and electric lines, then cleaning all of the lacunas and previous mortar, and the entire surface of the mosaic from dirt and sediments of factories and cars exhausts. Cleaning the surface from the Lime and paint, which existed on the surface of the mosaic, which happened during the successive works in the hall, in the last century, this cleaning, was made by using water and solvents, and the suitable compresses for each case.

- Refilling the lacunas, by using the previously fallen cubes, or by using mortar, as a replacement of the missing cubes to create new cubes from mortar to be placed in the lacuna, and then colored by suitable and harmonious colors, in the final phase.



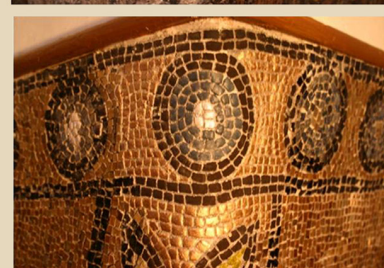
Important Note: The first idea for treatment of the lacunas, especially in the Mehrab, was by refilling the lacunas by new harmonious mortar with the environment, or cleaning the lacunas to show the original mortar layer, but after starting the cleaning process, the coloring layer (Sinobya) appears, which placed by the artist or the mosaic worker, this layer clarified the main lines of the drawing, and the color of cubes which placed above it, so then we changed our idea with new one, which includes creating new cubes from mortar and placing it in the lacuna, then coloring it by suitable colors and similar to original colors, especially in the Mehrab, due to the wonderful decorations used, and to its close location to the visitor, then we adopted this method to refilling the lacunas in the entire mosaics.

- Coloring the new cubes of mortar, by suitable constant colors, and very close degree to the original color.

- Cleaning the entire surface of the mosaic from the solvents and chemical materials used, and clean the remnants of the old dirt and smoke to recovery the splendor and value of mosaic.

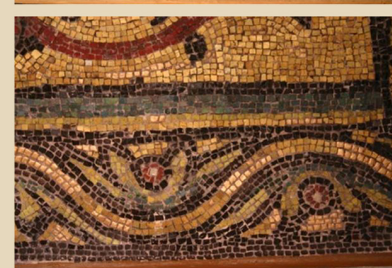
- Documentation of all new interventions by photographs and maps.

- Documentation of all the accomplished works, by scientific reports, for publishing in the future, and for using it in the experiments later, and to show definition the tourists and visitors, value of the accomplished works, and the aesthetic historical artistic archaeological values, for this great artistic work, and for the site.



BEFORE

AFTER



BEFORE

AFTER



The accomplished interventions:

Program of work at the site divided into two phases:

The first phase, which lasted three months:

Studying and definition all the problems, and best solutions, methods to re-fix all of damaged and detachment parts to the wall.

- Studying and analyzing of the Stratigraphy of the mosaic, to know the components, then defining the suitable materials to match original mortar, which will use in the process of consolidation.

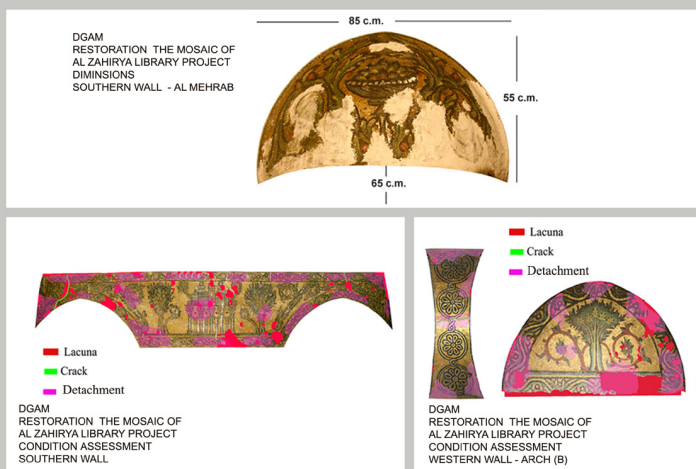
- Taking samples for analyzing, from tesserae, the original mortar, and previous interventions.

- Documenting the condition assessment as follows:

* Photography for the entire mosaic, problems, and exact details.

* Defining problems on the plans and on photographs taken previously.

* Draw the entire mosaic on the nylon, by scale 1 / 1.



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