

ANNUAL REPORT

December 2006 – December 2007

“Conservation of the Mosque of Aslam al-Silahdar in Darb al Ahmar, Cairo”

Agha Khan Cultural Services
(Christophe Boleau)

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Egyptian Ministry of State for Antiquities





AGA KHAN TRUST FOR CULTURE

Historic Cities Support Programme



**CONSERVATION PROJECT OF THE
ASLAM AL-SILAH DAR MOSQUE**

**QUARTERLY PROGRESS REPORT
DECEMBER 2006-FEBRUARY 2007**

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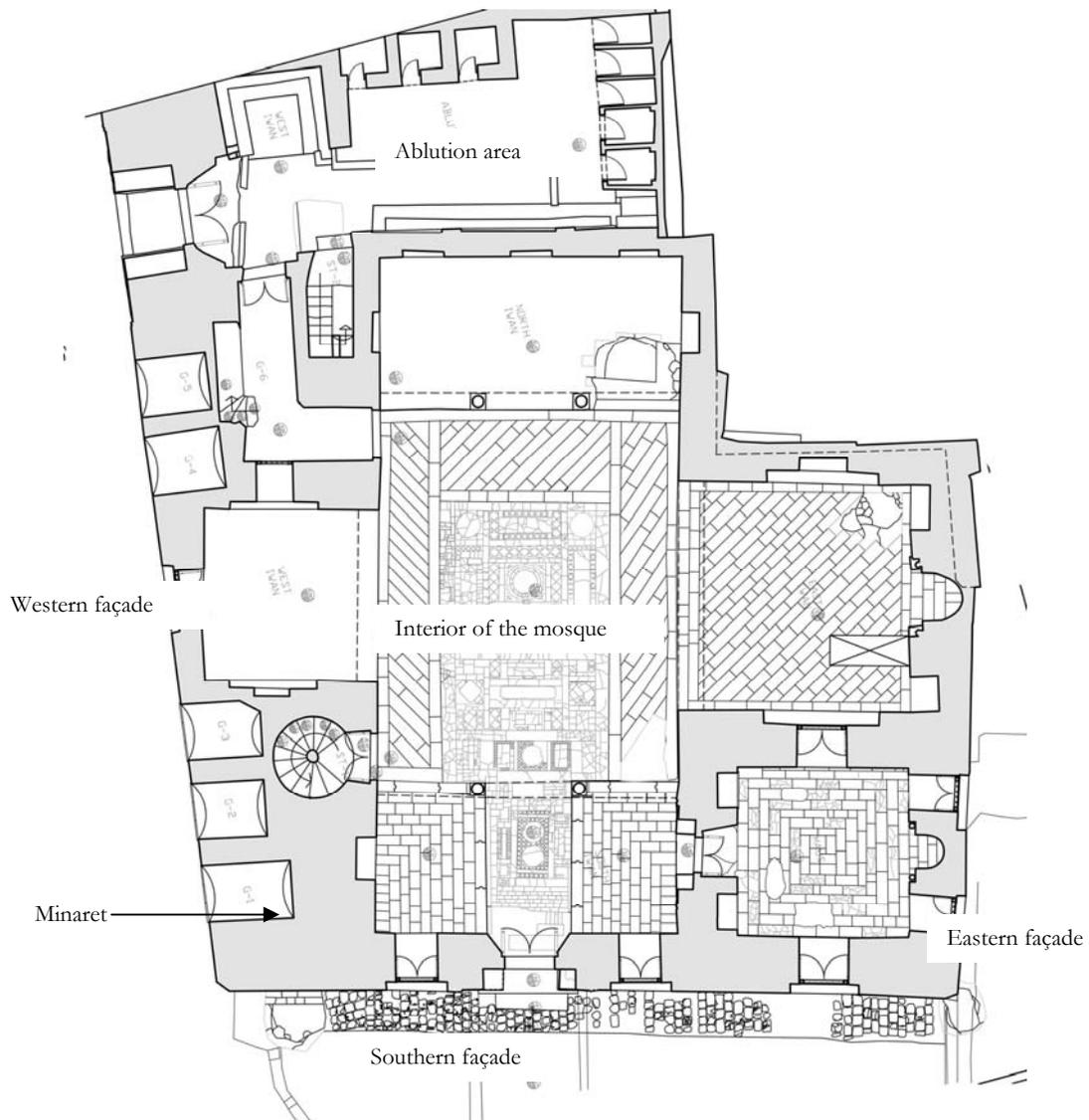
1. Description of the Project's components

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1. Description of the Project's components

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2. TECHNICAL REPORT

Summary

Architectural surveys started at end May 2006 have been completed and a full-set of plans-sections-elevations is completed. An electro-mechanical design package was prepared by ACE Moharram-Bakhroum and the sanitary work for the ablution area is planned to be started.

Conservation work is taking place mainly in two areas: stone replacement at the base on the walls is proceeding together with brick masonry consolidation on the walls of the first floor; the timber carpentry and insulation of the roof is under completion. The aim of such works is to provide a safe and water tight shelter before entering into interior fine conservation.

1. Documentation and design:

Architectural documentation:

Architectural surveys started on 25 May 2006 have been completed. A full set of plans, sections and elevations has been finalized. Architectural survey currently underway includes now details of woodwork, metalwork, gypsum windows and mosque furniture. The survey technique is an association of topographic grid, rectified photography and hand measures.

Engineering studies:

A design package of electrical, sound and sanitary engineering was prepared by ACE Moharram-Bakhroum and is under review. It includes the electrical circuits and outlets needed for lighting and power supply, the cables and loudspeakers of a sound system and the water supply and drainage of the ablution area. The guidelines established for wall and floor mounted cables are to integrate them as much as possible within the surfaces and hide them. The exterior and interior lighting scheme will associate high technology metal halide floodlights with replication of historical brass and glass suspended lights.



View of the southern elevation of the Aslam al-Silahdar Mosque during conservation

2. Conservation-restoration work:

Works completed during the period December 2006-February 2007

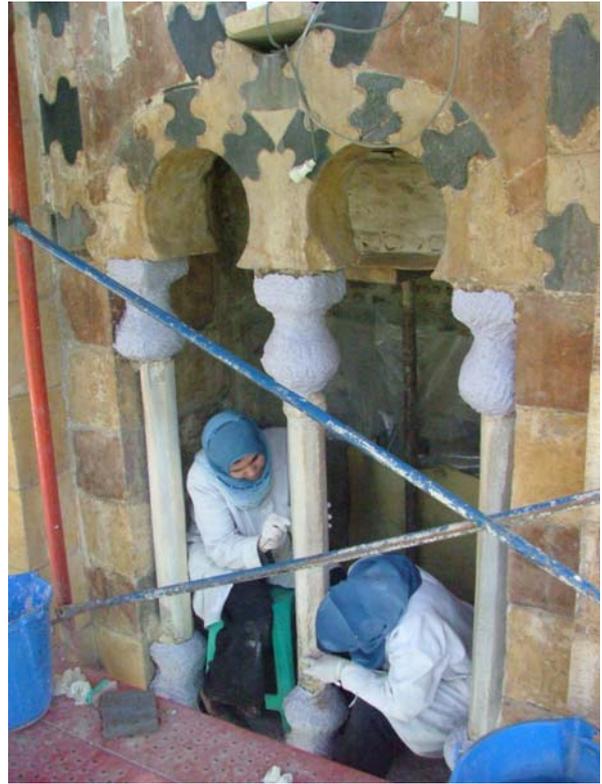
Exterior facades: Southern and eastern facades

A campaign of selective stone replacement was completed at the southern and eastern facades: damaged plain facing and decorated lime stones were carefully replaced by new stones of a similar nature.

The southern and eastern elevations have been entirely cleaned using humid poultice made of bentonite and paper pulp with a low concentration (3-5%) of Ammonium Bicarbonate. This has revealed the original polychromy of the lime stone made of alternated white and orange horizontal stone courses and has made it possible to identify several stages of construction and restoration.



View of the marble panel on the main façade during cleaning



Cleaning of the southern façade by poultices and mechanical techniques



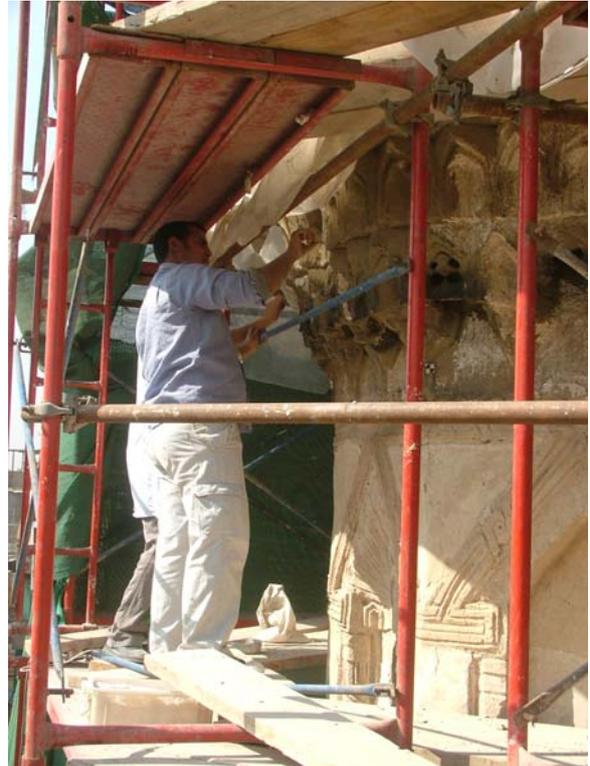
Cleaning of the inscription band on the Eastern façade by poulticing



Stone replacement activities taking place on the Southern façade of the mosque

Minaret:

The exterior surfaces of the minaret made of gypsum and lime stucco are under cleaning by micro sand blasters and injection of lime grouts. The deteriorated status of the stucco makes it vulnerable to harsh weather conditions. The upper segment was reconstructed probably during the 19th century (the earliest photographs taken in the 1880's show it similar as today). The pencil shape of the top and the upper part of the brick drum are in a poor condition: the lead roofing is totally ruined, the timber carpentry is almost under collapse and the upper part of the brick drum is affected by serious cracking. A comprehensive restoration is planned in order to re-establish the last documented condition of the minaret as of the 1880's, without attempting to return back to a pre-Ottoman undocumented condition.



Cleaning activities on the minaret by poulticing



Brick restoration activities taking place on the upper part of the minaret

Exterior of the dome

Following the erection of exterior steel scaffolding around the dome, cleaning was initiated by micro-sand blasting and temporary stabilization of the unstable parts was done. The cleaning revealed that the cupola is built with bricks covered by a thick (10-14cm) crust of plaster. Some remains of lime wash are still visible in the recessed angles. Although the cupola is not affected by structural problems, its surfaces and remains of polychrome tiling decoration are in moderately damaged condition.



Dome exterior after scaffolding erection



Stabilization of unstable plaster crusts



Cleaning of the Cupola by micro-sand blasting

Roof

The replacement of broken and damaged beams was done and more than half the surface of the entire roof was already insulated using a bitumen sheet covered with mortar screed. The carpentry of the central shokhsheikha was restored and the construction made by the Comité in 1908 was maintained. It is planned to be covered with lead sheets in order to minimize the dead load.



Assessment of wooden shingles and beams of the central shokhsheikha



Ceiling after restoration



Carpenters replacing damaged wooden shingles



Brick construction of damaged roof parapets



View of roof after insulation

Interior of first floor rooms

The brick masonry of the first floor rooms was affected locally by vertical cracking caused by earthquake loads. In the areas concerned with this damage pattern, the masonry was repaired by brick stitching. This concerns both southern and northern large rooms and the small qa'a along the western elevation.



Brick repair of cracks in upper level rooms



Plastering of rooms on first floor



View of room on first floor after brick repair and plastering

Interior of the mosque

Stone replacement of the damaged lower parts of the walls was performed and is still in progress. No conservation intervention of the surfaces of walls and ceilings will take place before September 2007.



Stone replacement activities in the qibla iwan



Stone replacement in main staircase



Stone replacement activities in the qibla iwan

Ablution area

The existing structures of the ablution area were found in an advanced state of deterioration and were dismantled after survey. The location may be used as storage till the second quarter of 2007.



View of ablution area used as storage area

Works planned during the period March-May 2007

Exterior facades: Southern and eastern facades

The stone replacement campaign is planned to be entirely completed in March 2007. The cleaning, conservation and repointing of both the southern and eastern elevations are planned to be completed by mid April 2007.

Minaret:

The exterior surfaces are planned to be cleaned and conserved in order to integrate the restoration and selective reconstruction of the upper segment according to the last documented condition of the minaret as of the 1880's. The restoration will include the construction of a pencil shaped carpentry top, to be covered by lead sheets. The timber handrail of the middle platform will be restored using the design of the few conserved fragments.

Exterior of the dome

The cleaning by micro-sand blasting will be continued and completed. Local injections will re-attach the loose parts of plaster crust. The conservation is currently under testing in order to determine the feasibility of filling the cavities of the upper part of the dome's plaster.

The conservation of the tiling decoration will be tested in March 2007 and a proposal of integration of lost fragments will be developed for implementation in May 2007.

Roof

Carpentry and roofing activities are planned to be completed by April 2007 in order to provide a safe and water tight shelter to the Mosque.

Interior of first floor rooms

The brick masonry of the first floor rooms is planned to be achieved by April 2007, together with plaster and stone tiling finishes. The electrical network will be embedded into the brick masonry.

Interior of the mosque

Stone replacement of the damaged lower parts of the walls is planned to be achieved by April 2007.

No conservation intervention of the surfaces of walls and ceilings will take place before September 2007.

Ablution area

The modern modifications above the ablution area are planned to be dismantled and a remodeling of the area is planned to provide a more rational support for the first floor terrace and to give space to the new ablution area.

The underground canalizations of water supply and drainage are planned to be installed in May 2007.

This report was prepared by Christophe Bouleau and Lara Iskander on 13 March 2007.



3. Appendix:

- Full set of architectural drawings of the pre-conservation condition
- Detailed survey and proposal of restoration of the minaret upper segment
- Master schedule by area and activity



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**CONSERVATION PROJECT OF THE
ASLAM AL-SILAH DAR MOSQUE**

QUARTERLY PROGRESS REPORT

MARCH 2007-MAY 2007

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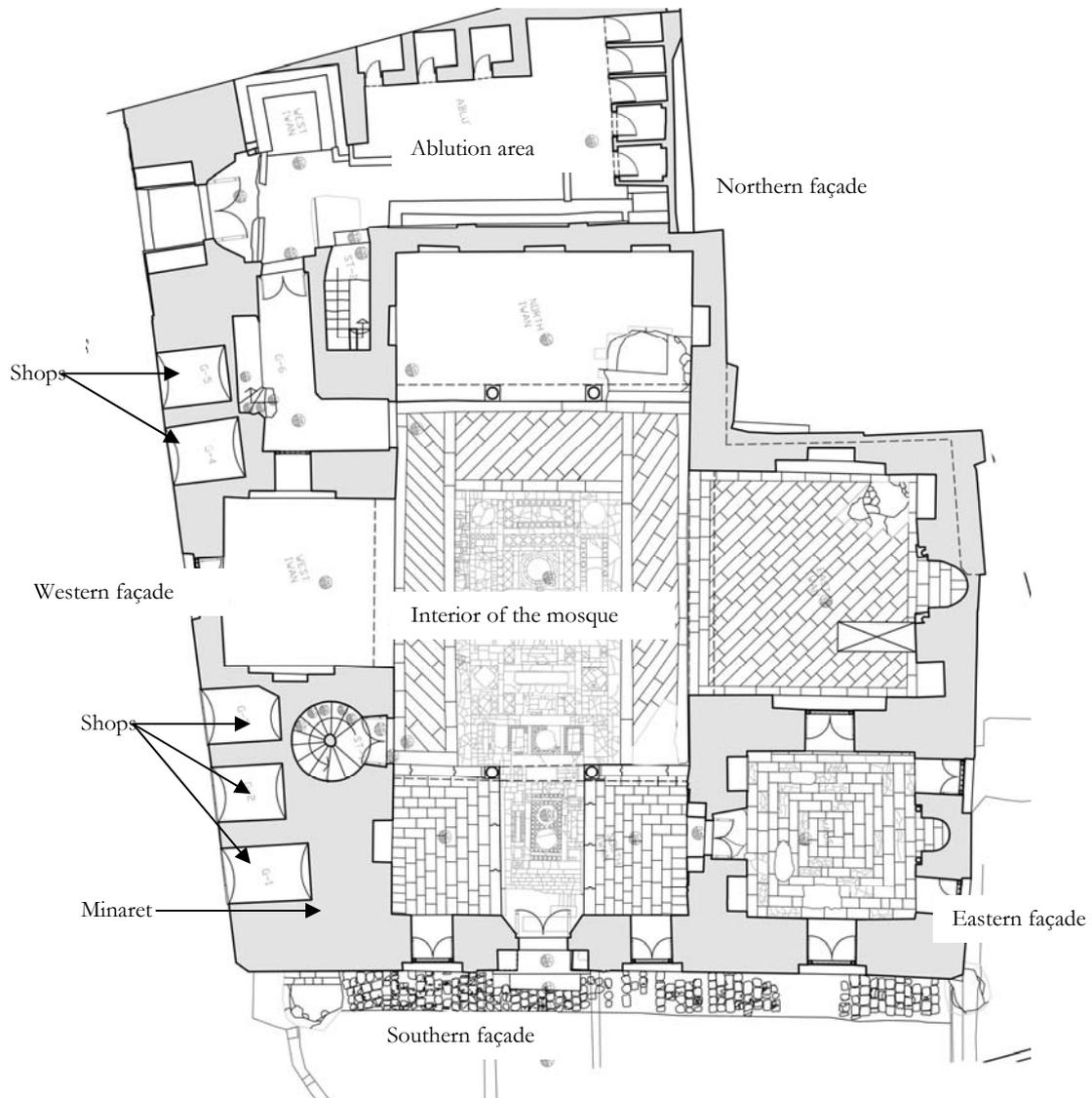
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2. TECHNICAL REPORT

Summary

The architectural surveys of the mosque have been updated during the past period. The mosque plans, elevations, sections are complete. Wooden details and architectural proposals of missing elements are been prepared.

Conservation work was completed on the Southern, Northern and Eastern facades and work is in progress on the Western façade. Scaffoldings were erected on the western façade. Detailed surveys and drawings have been produced in order to study closely two main cracks on the façade. Stone and brick restoration activities are now focused on the western façade and the shops on the ground floor in order to ensure its stability by tying the stone and brick masonry. Meanwhile, stone conservation activities are taking place also on the western façade.

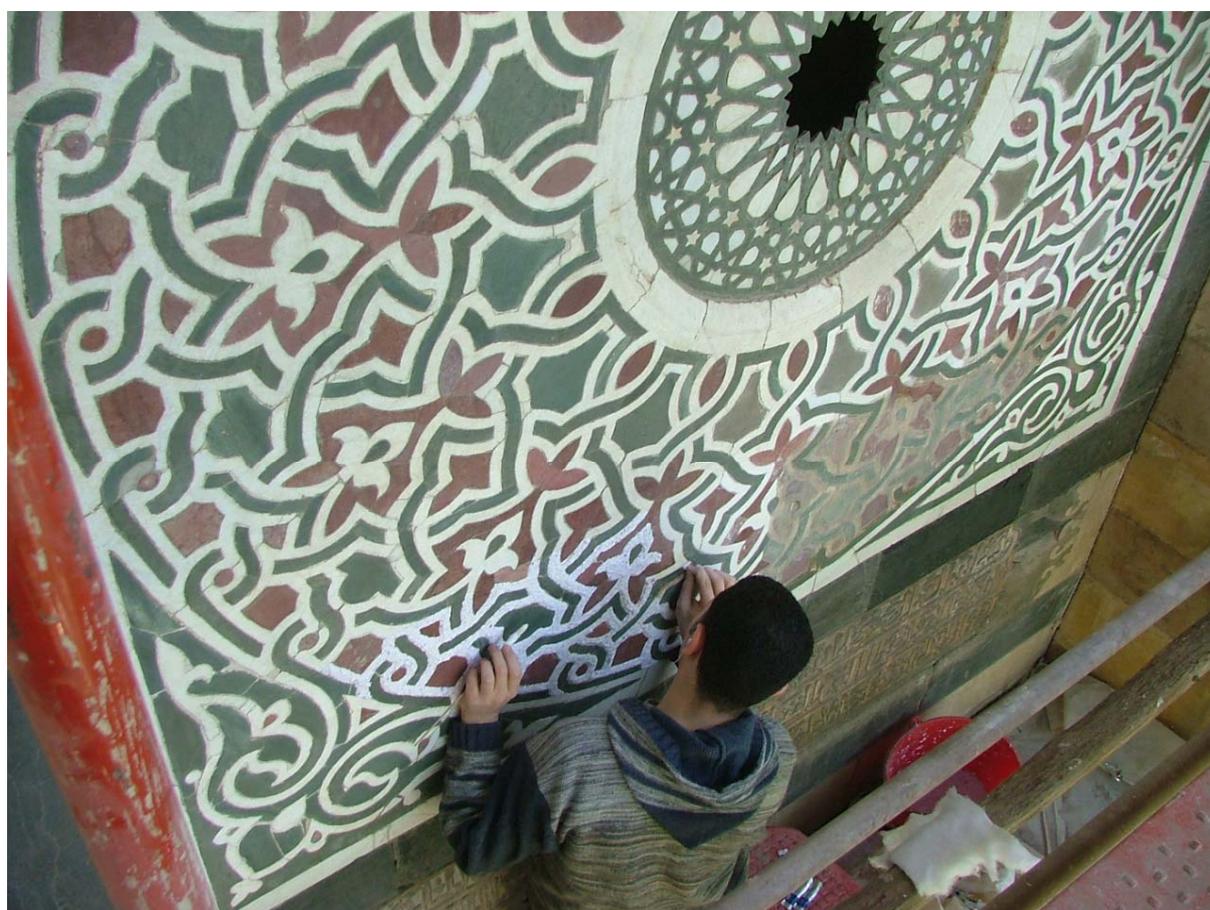
1. Documentation and design:

Architectural documentation:

Architectural documentation of the western façade has been finalised and a detailed survey of the cracks was completed enabling the stone conservation work to begin.

Detailed architectural surveys and shop drawings are proceeding in order to produce a full set of drawings of all woodwork necessary for the mosque openings. All proposals have been finalised and a sample of each has been produced.

Architectural proposals for new gypsum windows and metal grills replacing missing ones are complete and samples have been produced.



Cleaning of the marble panel on the southern facade

2. Conservation-restoration work:

Works completed during the period March 2007- May 2007

Exterior facades:

- Southern and eastern facades

Stone replacement and fine restoration activities were completed on both facades in April. The upper brick part of both facades was also restored and plastered.

- Northern and western facades

The northern façade consists mainly of plain brick walls. Damages in the masonry of the facade were repaired by brick stitching. Brick repair activities were completed during April. Lime plastering of the façade took place afterwards and was completed beginning of March.

A campaign of selective stone replacement is in progress on the western facade: damaged plain facing and decorated lime stones were carefully replaced by new stones of a similar nature.

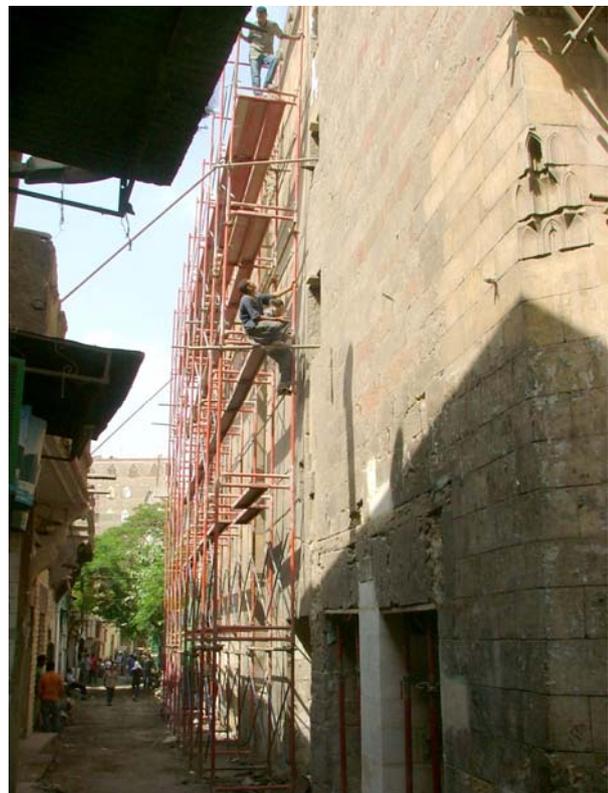
Mechanical cleaning test were started on the western façade in order to determine the state of the lime stones. Following, the fine restoration activities were initiated using poultice made of bentonite and paper pulp with a low concentration (3-5%) of Ammonium Bicarbonate. The same polychromy pattern of the lime stone found on both the southern and eastern façade was revealed.

The secondary entrance of the mosque is vaulted by a composite stone stalactite shape which is currently undergoing mechanical cleaning and poulticing.

All wood work on the façade was dismantled, numbered and documented in preparation for assessment of condition and restoration.

- Shops

The ground floor private shops on the western façade were cleared temporarily by the tenants and brick repair works started. Upon restoration, shops will be handed back to the tenants.



View of the eastern façade during scaffolding erection



Clearing of shops on the western façade and selective replacement of damaged stones



Mechanical cleaning of the western façade stalactites



Stone cleaning activities through mechanical and poulticing techniques.



Minaret:

The cleaning and conservation of the exterior and interior surfaces of the minaret were completed.

The conservation work included brick repairs on the upper part, the construction of a pencil shaped carpentry top and the cleaning of the interior walls and steps using the sand blasting technique.

A detailed survey of the upper part of the minaret and tiling in the balcony was completed and a design proposal was prepared for the replacement of the missing tiles and handrail. The timber handrail of the middle platform was restored based on the design of the few conserved fragments. The upper wooden structure will be insulated by lead sheets during the next period.

All interior and exterior electrical networks have been installed.

The manufacturing of the missing parts of the minaret brass crescent was designed and manufactured and will be installed after the insulation of the wooden top.



View of the minaret upper part after the removal of damaged beams.



Brick repair activities on the minaret



Inner view of the minaret after the installation of the main supporting beams of the upper part.



Wood manufacturing of the upper part and the surrounding handrail of the minaret balcony



View of the minaret after the completion of the upper pencil part and during plastering activities

Exterior of the dome

The cleaning and conservation of the upper part of the dome exterior was finalised. Detached parts of the mortar crust of the ribs on the upper part were injected and stabilized in place. A thin layer of lime wash was applied on the dome ribs in order to fill the cavities of the plaster and ensure its durability.

Local injections re-attaching the loose parts of plaster layers on the dome base were finalised. The cleaning of the lower base by micro-sand blasting will be finalised by mid July.

A detailed architectural drawing of the ceramic inscription band of the dome was completed. Cleaning and stabilization of the polychrome tiling decoration was finalised. Retouching of the missing ceramic glazed parts is currently proceeding while mortar samples of the missing upper crenellation are been prepared in order to study the feasibility of replacing all missing ceramic crenellations.

A design proposal has been developed in order to test the possibility of continuing the missing ceramic floral designs on the inscription band, hence enhancing the continuity of the inscription band and its visual appearance.

Sample of gypsum exterior windows have been finalised.



View of the ceramic inscription band on the dome during cleaning and consolidation of the ceramics



Mortar completion of the upper missing parts of the Dome Corniche



Mortar and drawing completion of missing parts



Retouching of the missing glaze of the inscription



View of the dome exterior after the cleaning and installation of the copper crescent



Roofs

The replacement of broken and damaged beams of all the roofs of the mosque was completed. The insulation of roofs was also finalised using bitumen sheets covered with mortar screed. The southern and qibla roofs will be insulated after the dismantling of the dome and minaret scaffoldings.

The carpentry of the central shokhsheikha was restored and insulated by lead sheets in order to minimize the dead load.



Central shokhsheikha during restoration and view of the new proposed wooden window



View of the central shokhsheikha after the replacement of damaged beams and shingles and after painting



Central sbokhsbekba during the insulation using lead sheets



Interior of mosque rooms

- Mezzanine and first floors

The brick masonry of the mezzanine and first floor rooms which was affected locally by vertical cracking caused by earthquake loads has been repaired by brick stitching. In the areas concerned with this damage pattern, the masonry was repaired by brick stitching. First Floor rooms, 1.1 and 1.4 were restored and plastered. The site office was moved into room 1.4. the roofs of room 1.2 and 2.3 have been uncovered and damaged beams and shingles were replaced.

Brick repairs and plaster consolidations were also finalised in room 1.3. Electrical network has been embedded into the brick masonry.

- Second Floor

Room 2.1 on the second floor was found in a good condition. Fine restoration and cleaning activities were finalised. Currently conservation of room 2.2 is taking place. Cleaning and conservation techniques include grouting behind detached plaster layers and consolidation of the lime based plasters using poulticing.

Brick stitching in room 2.3 was completed and plastering and conservation of the remaining stone facing and plaster is on going. Electrical network has been embedded into the brick masonry.



Room 1.2 during the replacement of the damaged beams



View of room 2.3 during the replacement of damaged beams and shingles.



Cleaning of lime based plaster in room 2.2 using poultices after the injection of detached parts.

Mosque interior and Iwans

- Stone conservation

Stone replacement of the damaged lower parts of the walls was performed on 90 percent of the mosque interior spaces.

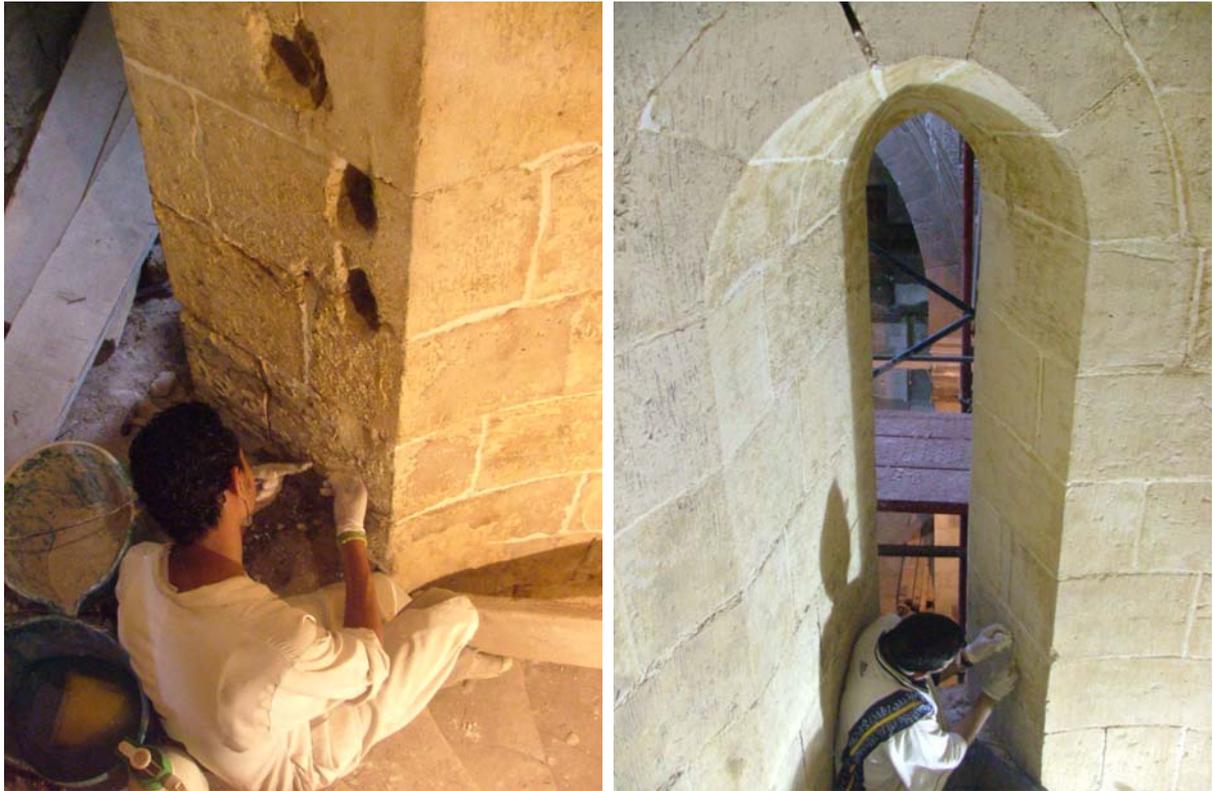
The mosque's main staircase showed many damaged stones which were replaced by new stones of similar nature. The electrical network was also embedded in the stone masonry during the restoration. The walls and steps of the staircase were cleaned by the sand blasting. Repointing of the wall masonry joints was finalised afterwards.



Interior of the main staircase during cleaning by sand blasting



Stone replacement activities in the staircase



Repointing of the stone masonry after cleaning

- Gypsum windows

The restoration of interior gypsum windows has begun based on the documentation of the remains and the designs proposed for the completion of missing parts. Windows that are totally missing are been replaced following the same pattern of the old gypsum windows.



- Woodwork restoration

Woodwork restoration of doors, windows and shutters is currently in progress. Following the state of the items, carpentry restoration takes place followed by fine cleaning and conservation of the wooden elements.



Cleaning activities of the main façade metal grill and wooden frame



View of the Eastern façade shutters before and after restoration



Inlay wooden cupboard during cleaning and consolidation

Ablution area

Underground canalizations of water supply and drainage reaching the mosque entrance have been renovated.

The ablution area is currently been used as storage till the second quarter of 2007.

Works planned during the period June-August 2007

Exterior facades:

The scaffoldings on the southern and eastern façade are going to be dismantled by end of August. The stone replacement campaign on the western facade is planned to be entirely completed in July 2007. The cleaning, conservation and repointing of both the western elevations are planned to be completed by mid September 2007.

Minaret:

The final plastering coat of the exterior surfaces of the minaret will be finalised by mid July. The lead roof and the minaret crescent will also be installed by early July. The minaret scaffolding will be dismantled by mid August.

Exterior of the dome

The cleaning by micro-sand blasting and local injections of the loose parts of plaster on the base of the dome will be completed during this period. The conservation and retouch of the tiling decoration will be finalised during the month of August 2007. The scaffolding will be dismantled by end of August 2007.

Roof

Carpentry and roofing activities are planned to be completed by August 2007 in order to provide a safe and water tight shelter to the Mosque.

Interior of mosque rooms

The brick masonry of the rooms is planned to be completed by July 2007, together with plaster and stone tiling finishes.

Interior of the mosque

Fine restoration test will take place on local areas in the mosque interior in order to determine cleaning and conservation methods. However, full conservation intervention in the mosque iwans will not commence before September 2007.

Ablution area

Design of the new ablution is will be completed. The modern modifications in the ablution area are planned to be dismantled. The underground canalizations of water supply and drainage are planned to be installed in the interior of the ablution area by August 2007.

This report was prepared by Christophe Bouleau and Lara Iskander on 4 July 2007.



3. Appendix:

- Master schedule by area and activity
- Architectural documentation update



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QUARTERLY PROGRESS REPORT

June - August 2007

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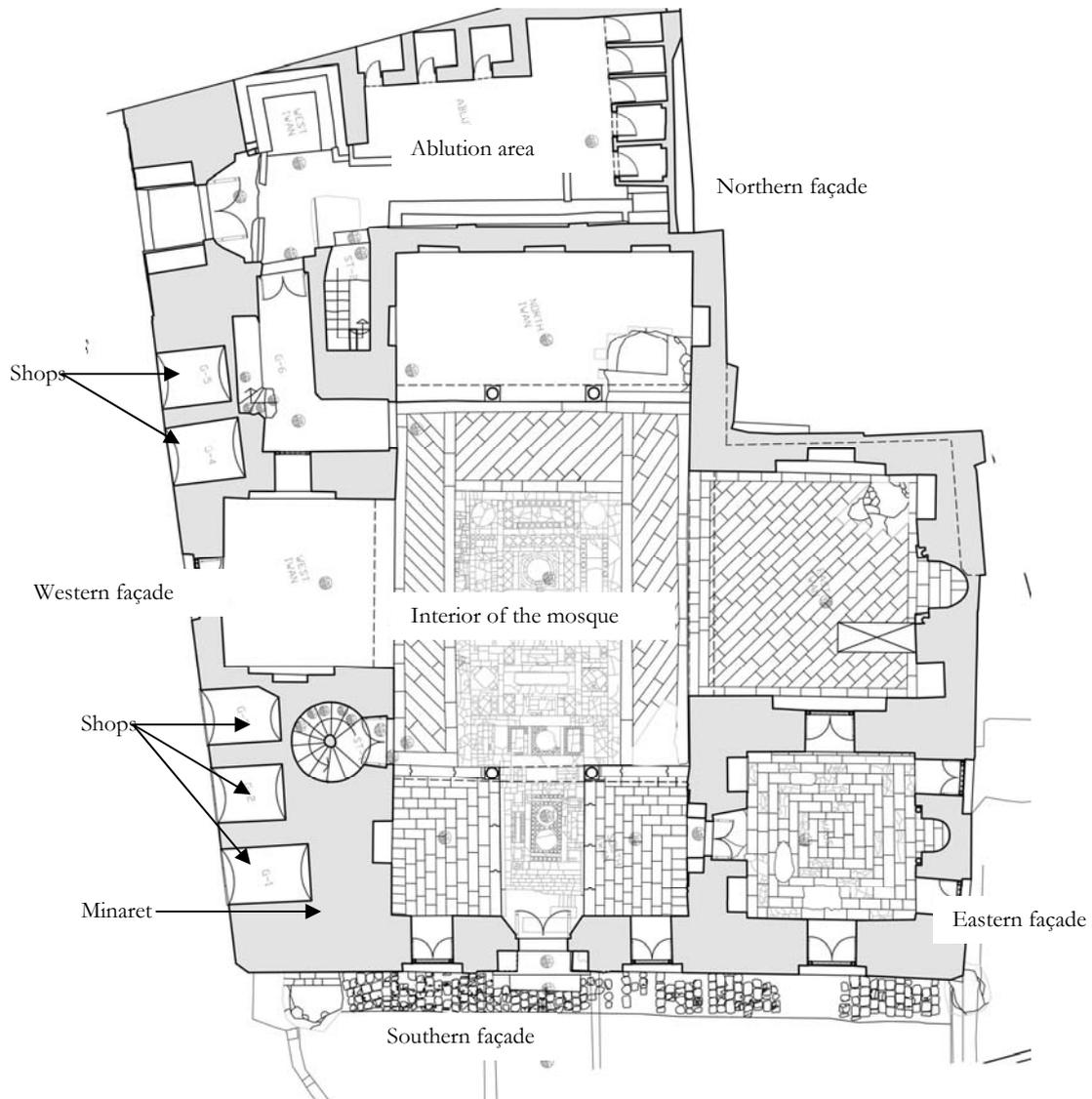
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2. TECHNICAL REPORT

Summary

The architectural surveys of the mosque are constantly being updated. The existing condition drawings of the mosque in terms of plans, elevations and sections are complete. Wooden details and architectural proposals of missing elements are in progress. Drawings of the interventions started and will be running in parallel with the physical activities.

As mentioned in the previous report fine and architectural conservation and restoration activities are complete on the Southern, Northern and Eastern facades. The activities on Western façade started and are in progress. Due to the numerous cracks and bulging of the western façade, careful study and procedure was developed for the architectural restoration to ensure the stability of the façade and to prevent further damage to it.

All activities on the minaret are complete and the scaffolding will be removed. Fine restoration and retouching activities of the exterior of the dome are proceeding well and show good results.

Electrical activities are in progress and lighting tests were carried out for the exterior of the mosque.

Architectural restoration started on the interior of the mosque, as well as fine restoration of the wooden elements. The repair and production of damaged or missing wooden screens, shutters and doors is in progress.

1. Documentation and design:

Architectural documentation:

All existing condition drawings of the mosque in terms of elevations, plans and sections are complete.

Shop drawings for the missing or damaged wooden elements were produced.

Intervention drawings indicating stone replacement, new wooden elements, etc. started and are in progress.



View of the exterior of the mosque during the lighting test. The photo also shows the completed activities of the exterior of the dome and minaret, as well as the shobkshaykha's insulation.

2. Conservation-restoration work:

Works completed during the period June-August 2007

Exterior façades:

- Northern, Southern and eastern façades

Restoration activities were completed on the three façades. The brick walls were plastered; the final finishing coat of limewash will be applied at the end of the project. The design and agreement with SCA concerning the grills (either metal or gypsum) to be installed in the openings is in progress.

- Western façades

The western façade shows bulging in more than one area as well as cracks that appear from the interior of the rooms behind the façade. After investigation it was clear that the bulging and the cracks are due to the type of construction of this façade. The thickness of the wall is in some areas less than 45 cm and is composed of a stone wall on the exterior and a thin brick wall in the interior; these two are not connected and tend therefore to detach. Therefore it was decided to reconnect the two elements of the wall by removing some stones and prolonging them into the brick wall; in some areas stainless steel bars were also inserted into the stones also protruding up to the brick wall; in few areas the thickness of the brick part of the wall had to be slightly enlarged.

Stone replacement activities started on the entrance portal; this procedure is delicate due to the decorative nature of the stones. This work is in progress.

Stone cleaning activities of the main part of the façade were completed using poulticing (of bentonite, paper pulp and a low concentration of 3-5% ammonium bicarbonate). The stones on the right side of the façade (below the minaret) are of different nature and do not have a smooth surface. Poulticing is being applied for their cleaning; after which some stones will be cleaned using the micro-sand-blaster using fine red sand (brand name: Trenemax). The crenellations were also cleaned with the micro-sand-blaster.

The work on the side entrance - with the stalactite decoration- started by mechanical cleaning followed by poulticing using in this case ammonium carbonate.

The dismantled wooden elements were repaired and are being painted.

- Shops

Some of the shops were in a bad structural condition and required a lot of brick repair of their vaults and walls; during this activity, electrical wires were also installed to fit the use requirements of the shop owners. The shops were then plastered. The shops with stone vaults are currently being cleaned.

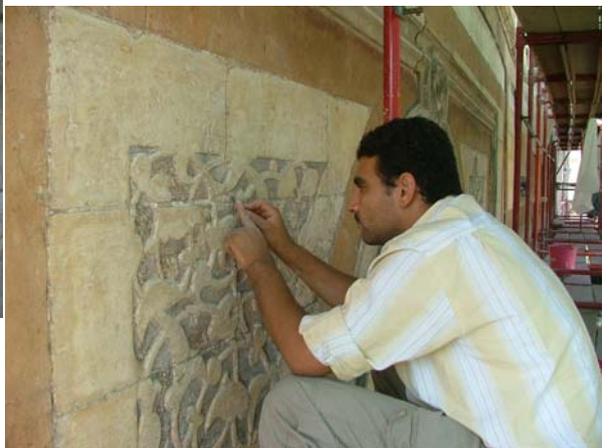
The wooden doors of the shops were repaired; their modern paint layer was cleaned using the paint remover and in other cases the hot air gun. The wood of the last shop's door was in a very bad condition and a new door was accordingly manufactured.



View of the interior of the room (1.2) on the western façade during brick repair activities and extending the stones into the brick wall (left photo shows the opening for the stone before placing it into the wall showing the thin thickness of the wall).



Poulticing and cleaning of the muqarnas entrance porch and its results

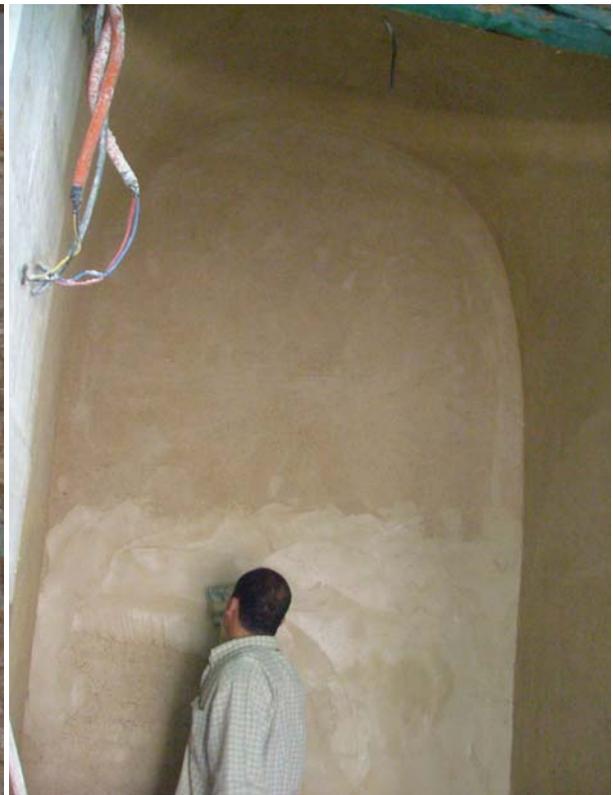




Brick repair and reconstruction activities of damaged and crumbling brick walls in the shops on the western façade



Electrical boxes for the shops



Plastering the brick walls of the shops

Minaret:

All remaining activities on the minaret were finalized: the balcony was tiled, the insulation of the upper wooden part was insulated in lead and the missing part of the crescent was manufactured and put in place. The outer and inner parts were plastered and the interior lights were installed.



Placing the lead sheet of the insulation of the minaret



View of the crescent of the minaret



View of the interior of the minaret

Exterior of the dome

The retouching of the inscription band and its floral decoration proceeded well and is almost complete. Samples for the upper crenellations crowning the dome were made of plaster. A complete crenellation was used for the samples. It was opted to carve the crenellations and retouch them in the same way like the inscription band. The intervention drawing is currently being completed to clearly show the retouched and carved parts and differentiate them from the original existing ceramics.

The cleaning of the lower part of the dome was finalized; the damaged or missing mortar parts were replastered. The crescent was restored and re-erected on top of the dome.



View of the complete existing crescent



Detail of the sample of the crescent during retouching



View of the crescents and the retouching tests of the floral pattern

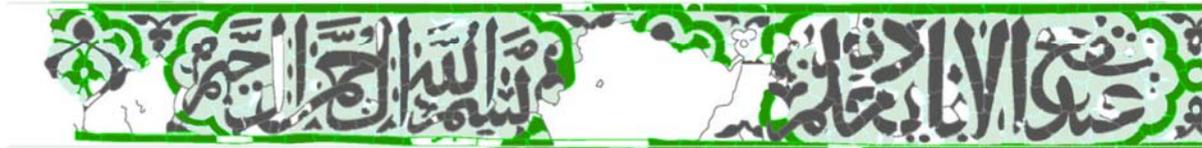


View showing the exterior of the mausoleum with the new crenellations





Intervention

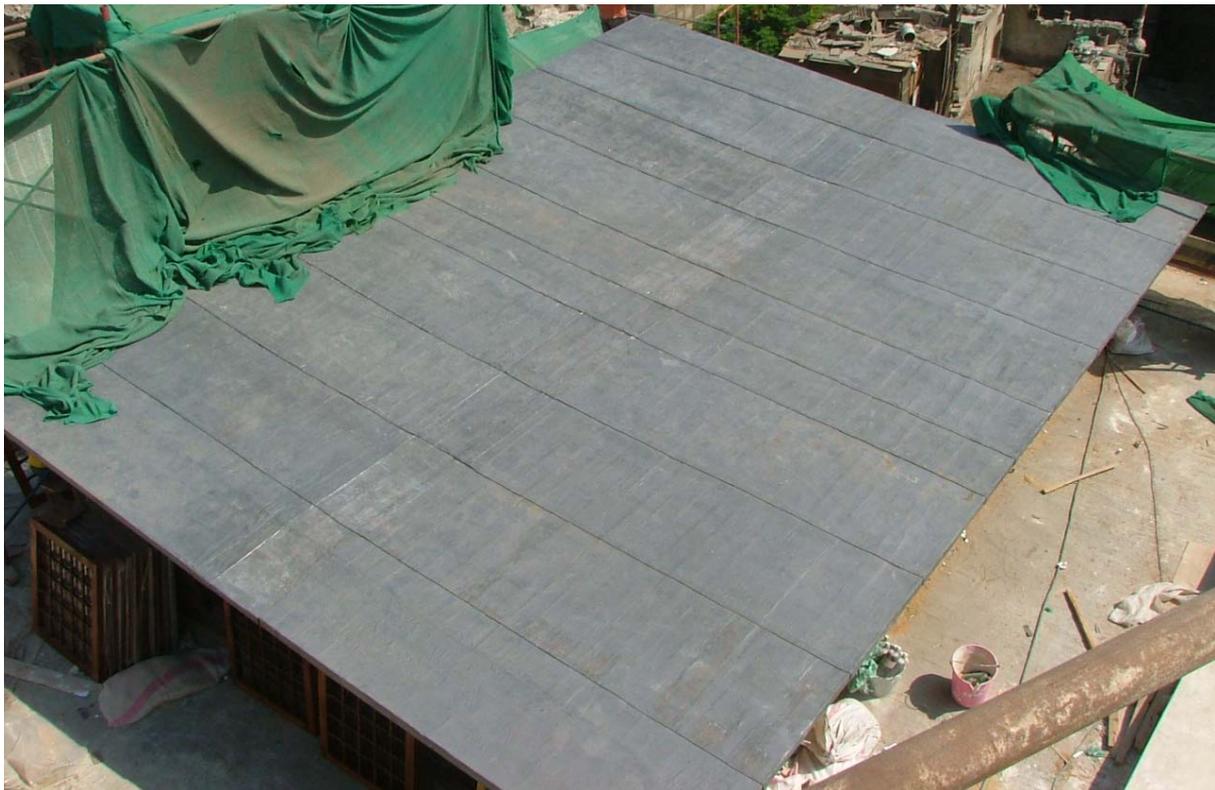


After cleaning

Roofs

The lead was placed on the central shokhshaykha and all its structure was painted. The manufacture of the wooden screens was completed and they are currently being painted. A mesh of steel, similar to the one of the *Comité* will be installed to prevent birds from entering the mosque. It was designed with wider dimensions in order to bring more light into the space.

The southern and eastern ceilings will be insulated when the scaffolding of the dome and the minaret will be removed.



Central shokhshaykha after completing the insulation with lead



View of the samples of the steel mesh (on the left) and the one of the Comité (on the right)



Work of painting the shokhsbaykhaand its wooden screens



Interior of mosque rooms

- Mezzanine, first floor and second floor rooms

Brick repair activities took place in room M1, also in relation to the western façade to ensure the bonding between the exterior stones of the façade and the brick part in the rooms, as mentioned earlier in the report. The wooden beams and shingles of the ceiling of room M1 (being the flooring of room 1.2) were in a very bad condition and were replaced with new ones. This was followed by brick repair activities in room 1.2 and bonding with the western façade. This activity was completed and currently the room is being plastered.

Brick repair activities started in the corridor leading to the ablution area. The vault was seriously cracked and was repaired through the upper room (1.3).

Restoration and cleaning of the plaster in room 2.2 started and is almost complete; it was carried out using poulticing with a 3% ammonium carbonate. The ceiling of the room was painted.



Brick repair and stitching activity in room M1



Erecting the wooden ceiling of room M1



Plastering of room M1



Fixing the vault of the corridor G6 through the upper room 1.3



Poulting activities of the walls of room 2.2



Preparation for painting the ceiling of room 2.2



View of the upper part of room 2.2 after painting the ceiling and poulting the walls

Mosque interior and Iwans

- Stone conservation

Some stone replacement activities were carried out in the mosque. Documentation of some fine details took place.



Stone replacement activities in the west iwan



Documenting the stucco roundel in the west iwan

- Woodwork restoration

Woodwork restoration of doors, windows and shutters is currently in progress and will be proceeding during the following months. In general, depending on the state of conservation of the item, carpentry restoration takes place followed by fine cleaning and conservation of the wooden elements.



Activities of cleaning the wooden doors





Removal of modern paint using the hot air gun



Manufacturing a new wooden door replacing the damaged one of shop 5

Ablution area

It was originally planned to construct the ablution area during 2007; nevertheless it was decided to delay this activity as the ablution area is currently being used as storage. Design drawings are currently being prepared for the new ablution area.

Works planned during the period September-November 2007

Exterior facades:

Finalize all cleaning and conservation activities on the western façade.
Complete the missing crenellations on the western and southern façades.
Continue with the stone replacement activities on the entrance porch of the western façade.
Remove the scaffolding on all façades.

Minaret:

Remove the scaffolding of the minaret.

Exterior of the dome

Finalize the retouching of the outer inscription band.
Dismantle the scaffolding. After viewing the complete dome, it would be necessary to take a decision concerning the reconstruction of the missing inscriptions on the band and proceed with the decision taken.

Interior of the dome

Start with the consolidation, injection and cleaning activities of the interior stucco of the mausoleum.

Roof

Carry out the insulation of the southern and eastern ceilings.
Finalize the painting of the wooden screens and the manufacturing of the mesh for the *shokhsbaykha*.

Interior of mosque rooms

Start the tiling of the rooms.
Complete the plastering of the walls of the rooms whose brick walls were repaired.
Start painting the wooden ceilings of the rooms.

Interior of the mosque

Erect the scaffolding in the mosque courtyard and the iwans.
Start the cleaning of the wooden shingles of the *shokhsbaykha* and replacing the damaged ones.
Start with the fine restoration of the wooden decorated ceilings of the iwans as well as the walls.

Ablution area

Finalize the design of the ablution area and plan the start and end date of the construction of the ablution area.

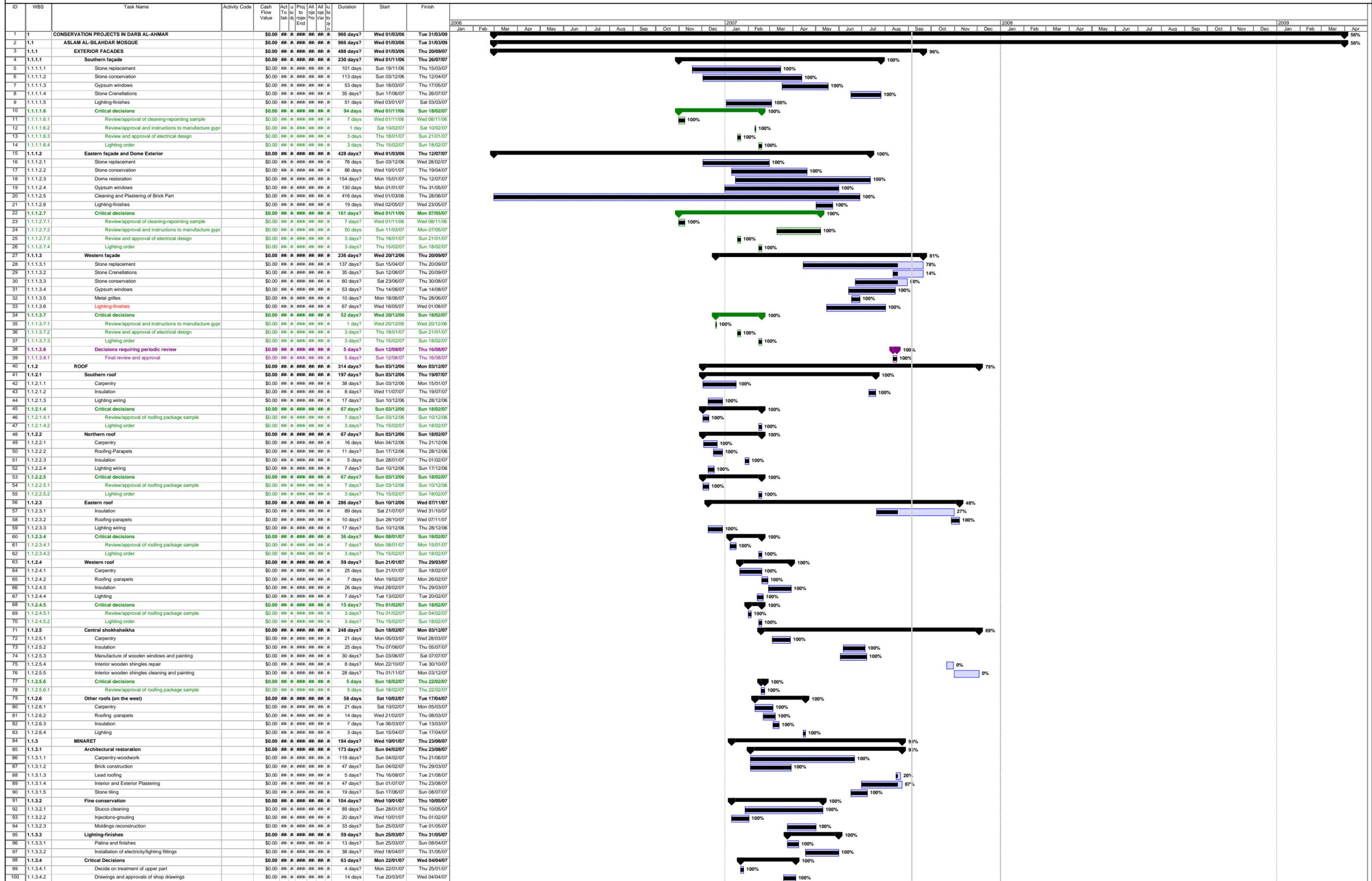
This report was prepared by Christophe Bouleau and Dina Bakhoun on 5 September 2007.



3. Appendix:

- Master schedule by area and activity

Conservation Projects in Cairo
Multi Year Master Programme
2006-07-08





AGA KHAN TRUST FOR CULTURE



CONSERVATION PROJECT OF THE
ASLAM AL-SILAH DAR MOSQUE

QUARTERLY PROGRESS REPORT

September - December 2007

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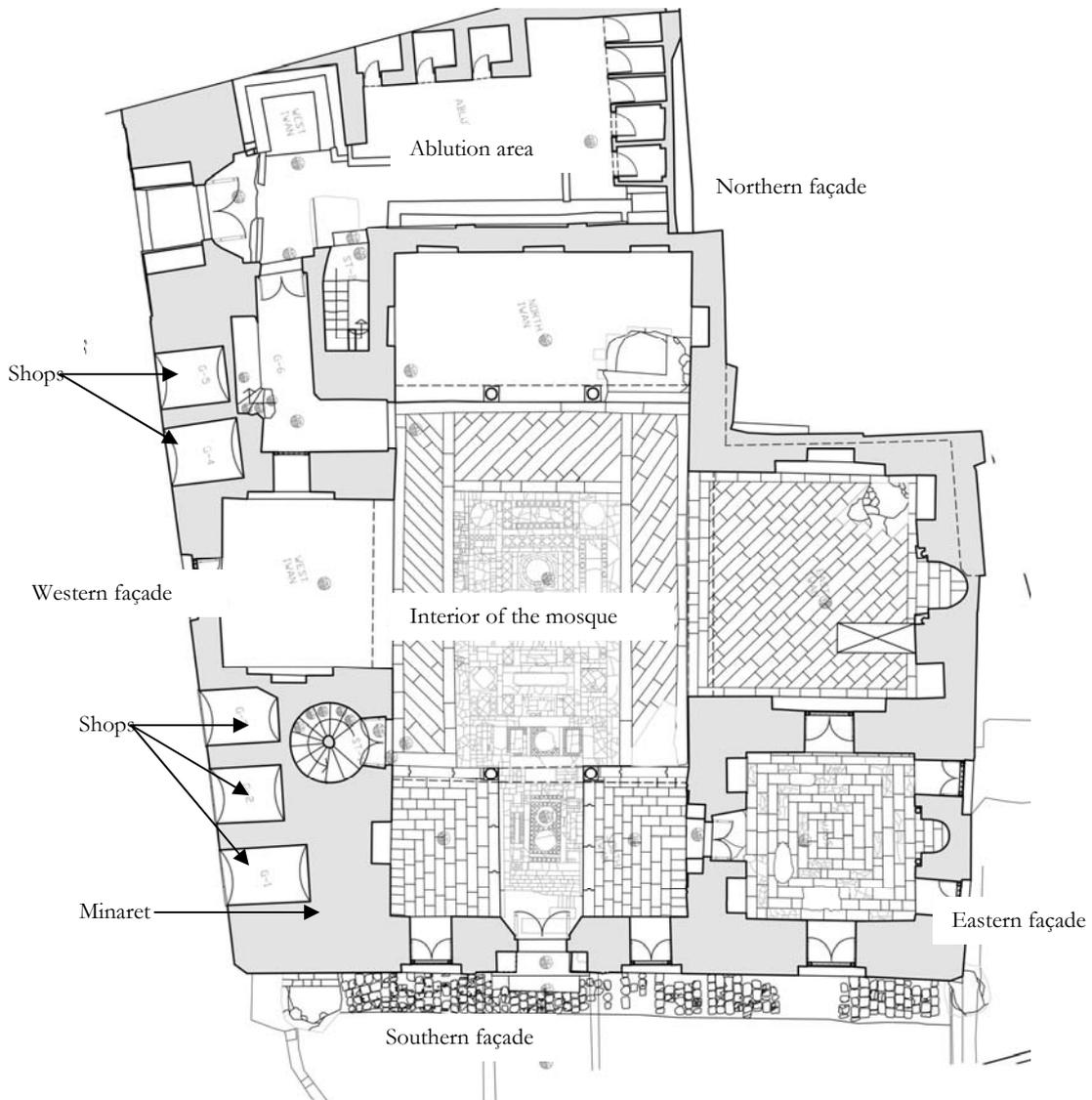
1. Description of the Project's components

2. Technical Report

1. The exterior elevations:
2. The roof:
3. The minaret:
4. The ablution area:
5. The interior of the Mosque:

1. Description of the Project's components

- | | |
|--------------------------------|--|
| 1. The exterior elevations: | Southern façade, eastern façade, northern façade, western facade |
| 2. The roof : | Roof of the mosque's courtyard, iwans and rooms |
| 3. The minaret: | Minaret platforms and elevations |
| 4. The ablution area: | Ablution area and electro-mechanical items |
| 5. The interior of the Mosque: | Interior floor, elevations and ceilings of the Mosque/mausoleum |



2. TECHNICAL REPORT

Summary

The project is proceeding well and with a lot of progress. The components ASLAMIN and ASLAROOF are completely finalized and ASLAFACA is almost complete with minor activities remaining. Activities in ASLAMOSQUE started in 2007 and are almost finalized.

In 2008 the main activities will be in ASLAMOSQUE mainly in the interior of the prayer area (the mosque courtyard and four iwans) and ASLAMIDA. It was decided to shift this component from 2007 to 2008 for practical reasons and needs of the site. Currently the design drawings of the ablution area are finalized and a schedule and plan is being prepared for its activities.

In terms of documentation the existing condition drawings are finalized and some decorative details are being updated; intervention drawings are in progress and run in parallel with the activities on site. All wooden elements are documented and drawn.

1. Documentation and design:

Architectural documentation:

As mentioned in the previous report: All existing condition drawings of the mosque in terms of elevations, plans and sections are complete.

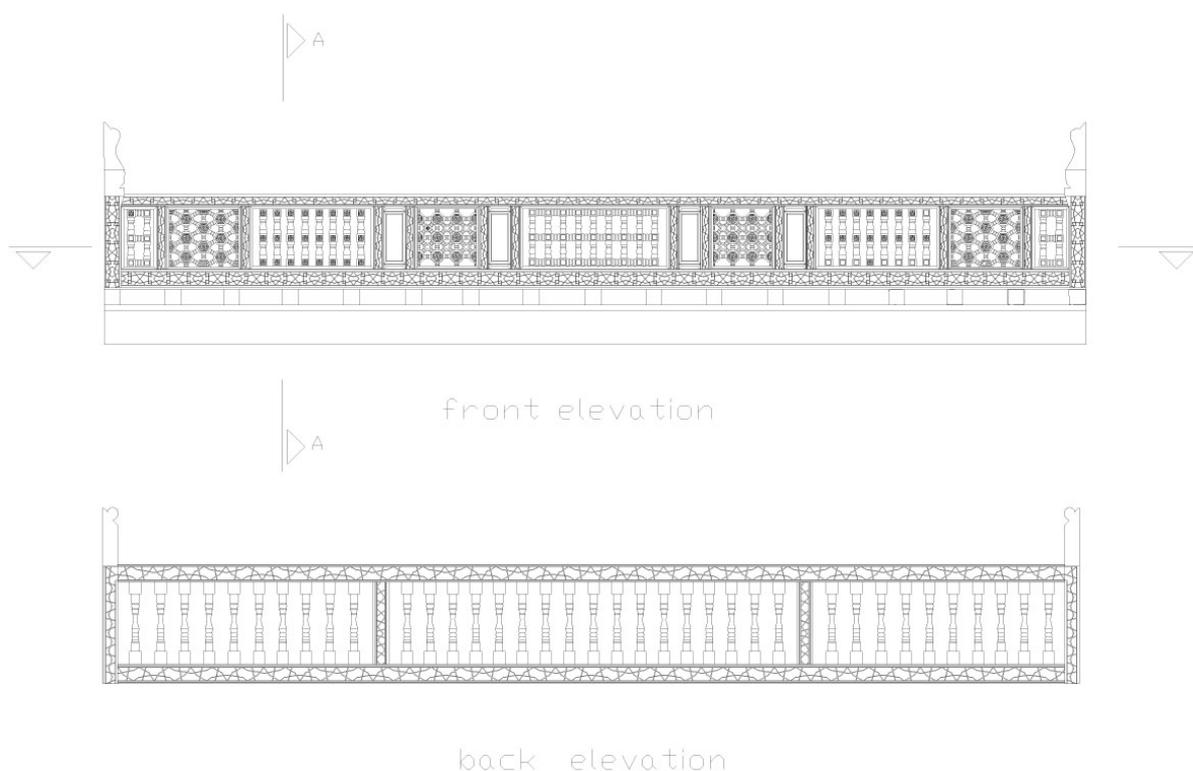
Shop drawings for the missing or damaged wooden elements were produced.

Intervention drawings indicating stone replacement, new wooden elements, etc. started and are in progress.

Currently design drawings are being produced for the ablution area.

A second professional photographic assignment started by Matjaž Kačičnik in December 07 to document the finished items such as the dome and the minaret as well as some of the ongoing activities.

Otherwise, daily photographic documentation is carried out by the site architects.



Front and back elevation drawings of *dikka al-mobaligh* in the west iwan

2. Conservation-restoration work:

Works completed during the period September - December 2007

Exterior façades:

- Northern, Southern and Eastern façades

As mentioned in the previous report, the fine restoration activities on the three façades were completed in September 2007.

The missing crenellations on the south (main) façade were carved, brought up to the roof and installed in place. The missing crenellations on the right side of the west façade were also carved and erected.



Carving the missing crenellation of the south (main) façade



Activities of placing the missing crenellations



General view of the South façade

- Western facades

The fine restoration and cleaning activities were completed on the limestone part of the façade. As for the entrance portal adorned with *muqarnas* and decorated with carved limestone and carved marble, the work is proceeding very well showing nice details and colors of the stones. The cleaning was carried out using different techniques (such as the micro-sand-blaster or poulticing with ammonium carbonate) depending on the type of the stone and the crust on it. The lower part of the entrance portal was in quite a bad condition with a very thick layer of crust; it was cleaned with sand-blasting technique. The remaining activities on the portal will be finalized by mid of January 2008. The wooden elements, repaired and painted, were placed and the scaffolding on the right side of the façade was removed.



Detail showing the muqarnas on the side entrance portal



Activities of marble cleaning on the west façade



Stone replacement activities on the lower part of the west façade



Views of the west façade after cleaning and inserting the restored wooden elements

- Shops on the Western facade

All remaining activities in the five shops were finalized; the walls were plastered and the floors were tiled. Some remaining activities of stone replacement and stone cleaning were also finalized.



Tiling activities of one of the shops on the west façade



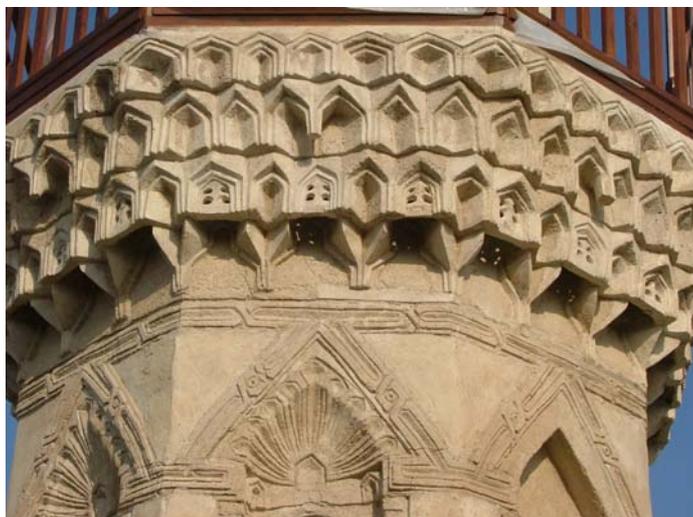
One of the shops after tiling

Minaret:

Completed in September 2007.



Views of the minaret after restoration and before restoration



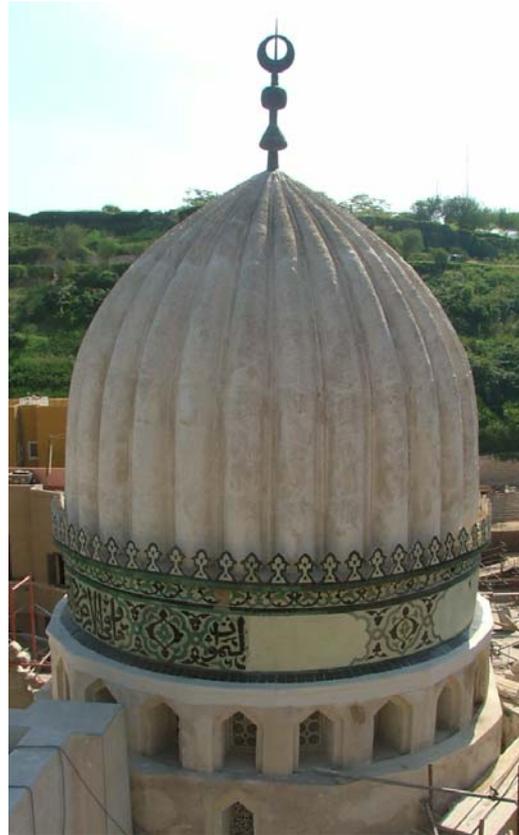
Detail of the minaret's muqarnas after restoration

Exterior of the dome

The retouching of the crenellations (made in plaster), the inscription band and its floral decoration was completed. A decision is being studied concerning the completion of the inscription band in the areas where no ceramic tiles are found. The existing gypsum grills with glass on the interior of the mausoleum were cleaned from the outside. As for the exterior gypsum windows (which are missing) designs were proposed to the SCA and discussions are taking place concerning the matter. The scaffolding was dismantled.



Details of the inscription band on the exterior of the dome before and after intervention



Views of the exterior of the dome before and after intervention



The exterior façade of the interior gypsum windows with glass (the left one is more historic and the only one remaining; the other ones are recent reconstructions by the Comité)

Exterior view of the inscription band and crenellation after intervention



Interior of the dome

The erection of the scaffolding in the interior of the dome was completed and the fine restoration activities started from the top of the dome. The inscription on the roundel was cleaned and the blue background was fixed where it was flaking and retouched where it was lost. The gypsum plaster was cleaned mechanically removing a recent limewash layer; this was followed by further cleaning of the plaster. The highest level gypsum grills were cleaned from the interior.

On the lower levels of the mausoleum some gypsum grills and windows were in a very bad condition with numerous missing parts. These are being repaired in-situ. One grill was in a quite bad condition and was dismantled, repaired, cleaned and completed.



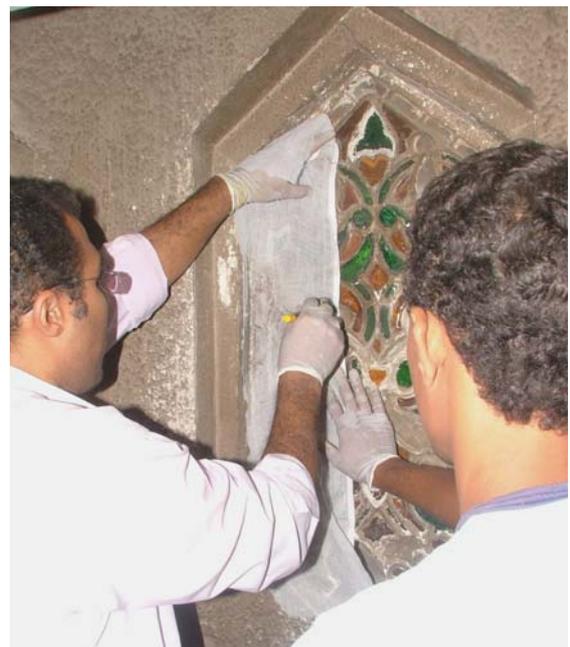
View of the roundel during cleaning



Activities and details of removing the dust and the recent limewash layer around the first level windows of the mausoleum



View of the upper roundel after cleaning and retouching the blue background; below: detail of the roundel



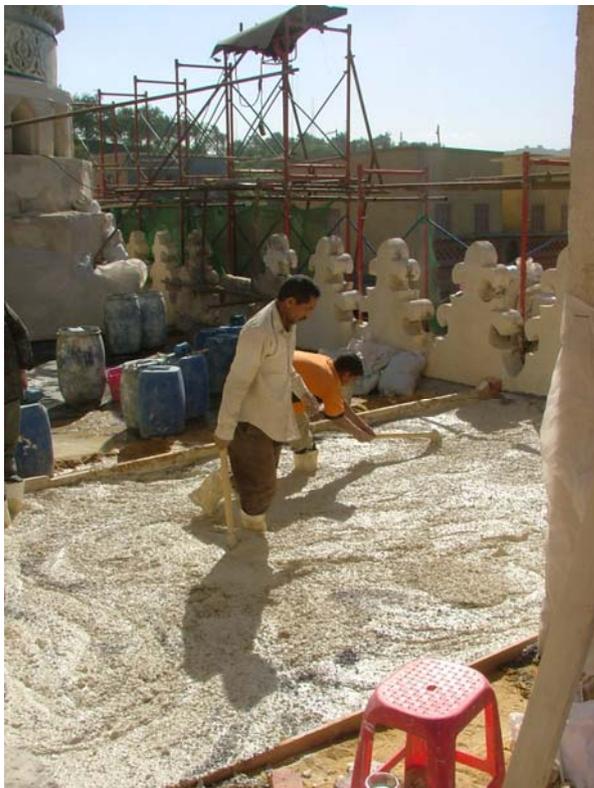
Views of repairing and protecting the gypsum decoration in-situ

Roofs

The southern and eastern ceilings were insulated; this completes all roofing and insulation activities.



Insulation activities on the south ceiling and water testing the insulation before applying the upper mortar mix layer



The upper insulation layer during application and after hardening

Mosque Interior

- Mezzanine, first floor and second floor rooms

Rooms 1.2 and M1: The rooms around the staircase (rooms 1.2 and M1) were completely restored; after the brick repair activities were finalized and the ceilings restored and repaired, plastering and tiling activities started and were completed, as well as the stone cleaning and plaster cleaning.

The stone niches in the rooms, (the one in room 1.2 was dismantled earlier to repair the ceilings and the walls), were repaired restored, replacing the damaged or lost ones and cleaning the existing ones.

Room M2: the brick repair activities in room M2 was finalized, as well as stitching it to the exterior west wall. The ceiling of the room (also the floor of room 1.3) was in quite a bad condition; the damaged beams and shingles were replaced with new ones.

Room 1.3: the brick repair in the room was completed as there was a serious crack between the room and the west iwan. The floor of the room (the ceiling of room M2) was also completed.

G6 (the corridor leading to the ablution area): the brick repair activities in the corridor were completed.



During erection of the niche in room 1.2



Room 1.2 after the niche was installed and during cleaning



Wooden ceiling of room M2 (the floor of room 1.3)



Tiling of room 1.3

- Mosque courtyard

The mosque courtyard is decorated with gypsum plaster. It is covered by a *shokhsbaykha* erected in the early 20th century by the *Comité*. Scaffolding was erected everywhere in the courtyard to allow the cleaning and painting of the central *shokhsbaykha* and the restoration of the decorated gypsum plaster.

The gypsum plaster was carefully studied and the problems identified. In several areas the plaster is detached from the background brick wall and this needs injection. Also, serious cracks existed and had to be filled. Before the injection activities started, the fine dust covering all the walls was removed with fine brushes. Cleaning tests were also applied to see what kind of method to be applied for cleaning the gypsum. It was decided to use a 2 % ammonium carbonate poultice.

Some of the decorated roundels and lozenges in the courtyard has lost part of its decoration and were re-plastered plainly with no decoration in an earlier restoration intervention. Samples of completing these decorations were carried out.

The wood of the *shokhsbaykha* is being cleaned starting by removing the dust with mechanical methods.



The mosque courtyard during the testing phase



Samples of cleaning the gypsum mortar with poultice and with mechanical cleaning





Example of the condition of the gypsum plaster in the courtyard showing serious cracks and detachment



Activities of completing the gypsum decoration of the roundels and lozenges in the courtyard

- Mosque Iwans:

Restoration and conservation activities started also in the East (qibla) iwan. The activities started also with the gypsum plaster cleaning similar to that of the courtyard.



Activities of removing the fine dust from the walls (middle part cleaned; left and right still with fine dust)



Activities of removing the fine dust from the decorated gypsum roundel in the qibla iwan

- Woodwork restoration

As mentioned in the previous report, the woodwork restoration of doors, windows and shutters is currently in progress and will be proceeding during the following months. In general, depending on the state of conservation of the item, carpentry restoration takes place followed by fine cleaning and conservation of the wooden elements.



Sample of cleaning the wooden shutters of the niches of the qibla ivan



Architectural repair of damaged parts in the wooden shutters

Ablution area

It was originally planned to construct the ablution area during 2007; nevertheless it was decided to delay this activity as the ablution area is currently being used as storage. Design and shop drawings are in progress.

Works planned during the period January - March 2008

Exterior facades:

Few stones need to be replaced on the western façade entrance after the removal of the scaffolding.

Minaret:

Work completed.

Exterior of the dome

All activities are completed. Study the possibility of completing the missing part of the inscription.

Interior of the dome

Ongoing work: consolidation, injection and cleaning activities of the interior stucco of the mausoleum.

Roof

Work completed.

Interior of mosque rooms

Apply the final layer of plaster and limewash in some of the rooms.

Ongoing painting of the wooden ceilings.

Interior of the mosque

Continue the conservation and restoration work of the gypsum plaster in the mosque courtyard and iwans.

Finalize the cleaning of the wooden shingles of the *shokhsbaykha*.

Start with the fine restoration of the wooden decorated ceilings of the iwans.

Ablution area

Carry out archaeological test pits in the ablution area before the start of the work.

Start demolishing the remains of the old ablution area and start the construction of the ablution area.

This report was prepared by Christophe Bouleau and Dina Bakhoun on 9 January 2008.

