



AGA KHAN TRUST FOR CULTURE

Historic Cities Support Programme



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

**QUARTERLY PROGRESS REPORT**

**MARCH 2007-MAY 2007**

## TABLE OF CONTENT:

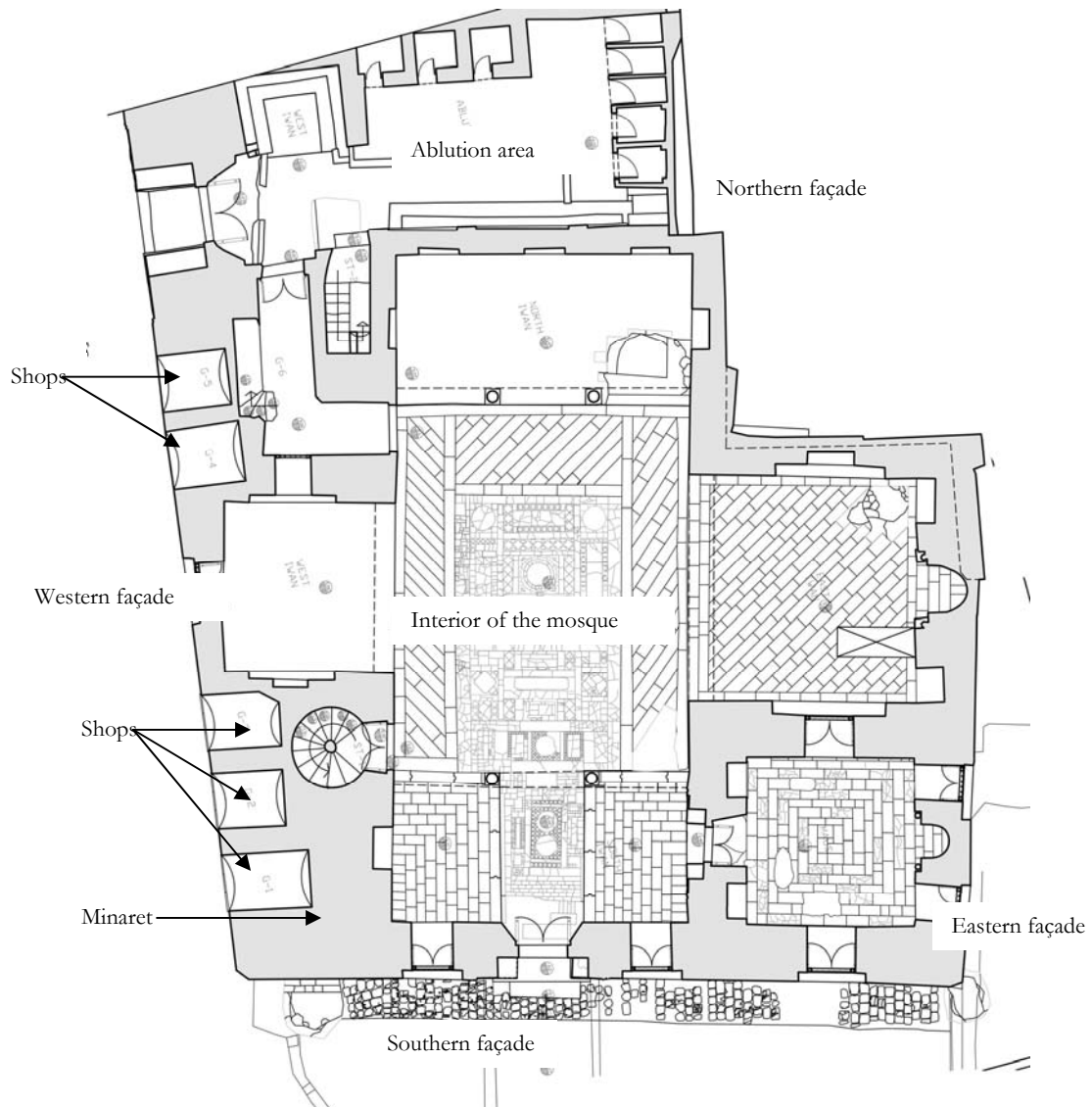
### 1. Description of the Project's components

#### 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 façade |
| 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 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.

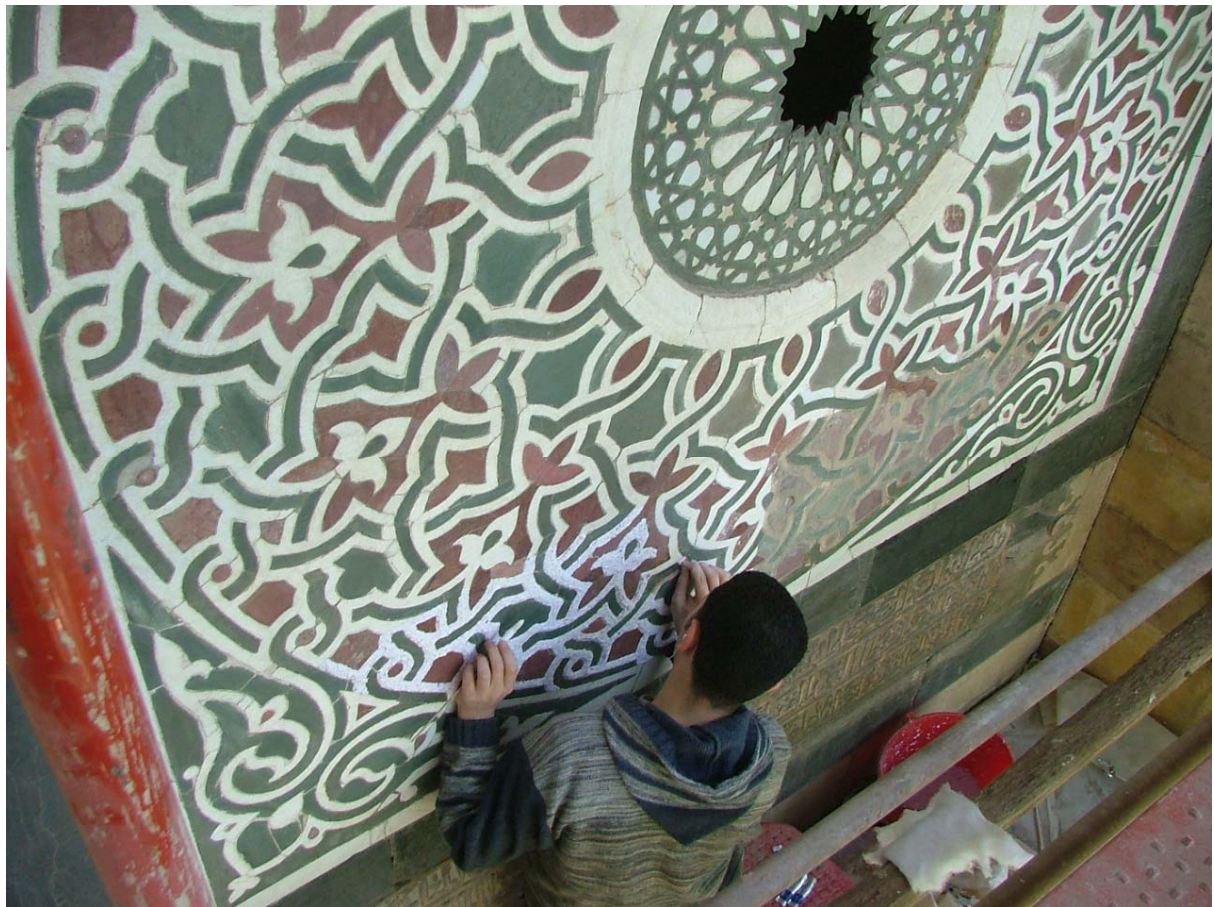
### 1. Documentation and design:

#### 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 shokhsbekba 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