



The Aga Khan Award for Architecture

ARCHITECT'S RECORD

CONFIDENTIAL

I. IDENTIFICATION

Project Title Restoration of Madrasa Al Gawhariye

Street Address Al Azhar Street

City Cairo Country Egypt

Telephone _____ Telex _____

II. PERSONS RESPONSIBLE

Steering group:

A. Architect Royal Danish Academy of Fine Arts Steen Bjarnhof
Hans Munk Hansen
 Mailing Address Kgs. Nytorv 1 Vilhelm Wohlert

Project leader: Ole Ross

City 1050 Copenhagen K Country Denmark

Telephone 01.126860 Telex _____

B. Client The Organization of Egyptian Antiquities

Mailing Address Fakhi Abdel Nour st.,
Abbasiay

City Cairo Country Egypt

Telephone 836572 Telex _____

C. Consultants (e.g. Economists, Sociologists, Demographers, Engineers)

Name Jorgen Nielsen, Engineer - Curt v. Jessen, Architect

Mailing Address Royal Danish Academy of Fine Arts, Kgs. Nytorv

City 1050 Copenhagen K Country Denmark

Telephone 01.126860 Telex _____

D. Contractor The Organization of Egyptian Antiquities

Mailing Address Fakhi Abdel Nour st., Abbasiay

City Cairo Country Egypt

Telephone 836572 Telex _____

E. Master Craftsman The Organization of Egyptian Antiquities

Mailing Address - see above

City _____ Country _____

Telephone _____ Telex _____

III. USE

- A. Specify type(s) of Use: University teaching
- B. User/Occupant Al Azhar University (theological faculty)
1. Occupation/Profession _____
2. Income Level (check one) _____ High _____ Medium _____ Low _____ Mixed
- C. Specify any change(s) between planned and actual use: none

IV. PROJECT TIMETABLE

(Please specify year and month)

- A. Design: Commencement 1975 Completion 1981
- B. Construction: Commencement 1980 Completion 1983
- C. Date of Project Occupancy March 3, 1983

V. PROJECT ECONOMICS

(Please specify amount, currency and date of transaction)

	Amount	Currency	Date
A. Total Initial Budget	<u>176,000</u>	<u>Egyptian pounds</u>	_____
B. Total Actual Costs	<u>planning, execution</u>	_____	_____
C. Actual Cost per sq. m.	<u>+ project leader paid by Danida (i.e. Danish</u>	_____	_____
D. Analysis of Costs	<u>International Development Agency).</u>	_____	_____
1. Land	_____	_____	_____
2. Infrastructure	_____	_____	_____
3. Labour	_____	_____	_____
4. Materials	_____	_____	_____
5. Professional Fees	_____	_____	_____

E. Cost Comparison

1. Please indicate how the costs of this project relate to typical building costs in the country (check one):

x Average _____ Above Average _____ Below Average

F. Sources of Funds

1. Please indicate the percentage of funds that came from:

_____ Private Sources 100% Public Sources

2. If funding was public, what percentage was from:

_____ local 10% national 90% international sources

VI. CONSTRUCTION DETAILS

A. Site and Building Area (please indicate in square metres)

1. Total Site Area: ca. 1000 m²
2. Total Ground Floor Area: 180 m²
3. Total Combined Floor Area (including basement(s), ground floor(s) and all upper floors): 200 m²

B. Construction and Technology

1. Describe the structural system and the basic method of construction

Traditional stonework with roofs supported on wooden beams.

2. Indicate which major building parts were fabricated on-site and which were fabricated elsewhere

Everything on-site.

C. Description of Materials

(please also indicate if locally produced or imported)

1. Foundations Natural stone from Mokattam, local.
2. Principal structural members Stonewalls of faced rubble, local.
3. Infill
4. Rendering of Facades or Exterior Finishes Exposed natural stone work, local
5. Floors Local marble and Mokattam stone, (limestone)
6. Ceilings Imported wood, stuccoed and gilt.
7. Roofing Polesterine used as heat insulating of the waterproof bitumen-layer instead of the traditional layer of clay, which here would have been too thick. On top the traditional stone flags laid in sand and lime mortar. The lantern was covered by imported lead.
8. Other elements (please specify)

D. Type of labour force (please indicate percentage)

40% Skilled Workers 60% Unskilled Workers

E. Origin of labour force

 Domestic Foreign

VII. GENERAL GEOGRAPHY AND CLIMATE

A. Please describe the local geographic characteristics:

The building is located in the old Fatimid part of Cairo and is a part of the Al Azhar University and Mosque complex. It is accessible both from the mosque and from the street of Al Azhar via an open, but fenced area. The traffic of the street is heavy, noisy, and polluting.

B. Please describe the local climatic characteristics:

The climate of Cairo is dry and hot during summer being milded by regular northern winds. During winter under influence from the Mediterranean storms with relatively low temperatures, min. temperature 4-6° - max. 36-38°. 4-6 raining days a year with 25-50 m/m rain.

VIII. EVOLUTION OF DESIGN CONCEPTS

Please describe the history of the project, from its conception to its final construction and actual use.

In 1974 the School of Architecture at the Royal Danish Academy in Copenhagen received an invitation to make proposal for projects that might be carried out within the framework of an Egyptian-Danish cultural agreement from 1971. The Institute of Architectural History, Surveying and Restoration at the Royal Danish Academy of Fine Arts numbered several specialists with experiences from working in the Near East as architects, restorers, and architectural historians, who agreed to place their expertise at the disposal of the preservation of valuable Islamic monuments in Egypt.

During the month of May 1974 a small group of students and teachers visited Cairo. Together with the President of Egyptian Antiquities the details were discussed in the collaboration between Egyptian and Danish teachers and students, which was to take place as a combined training, research, and service project. Furthermore, the group visited the buildings that could be objects for restoration. The Danish Party concluded in the selection of a building, which after several visits had become specially precious to everybody because of its obvious beauty, accessibility and the general character of the problems it typified. It was a religious monument from 1440, a madrasa and tomb, which is adjacent to the most distinguished university in the whole of Islam, the el-Azhar University and Mosque. It was of a size that made completion within the 2-year period, on which our offer was based, seem feasible.

In February 1975 a group of 12 teachers and students from Denmark could make the first registration and measuring of the building. Together with four Egyptian holders of Danida scholarships this material was later on elaborated in Copenhagen, and analyses, descriptions and drawings were sent together with a report to the Organization of Egyptian Antiquities for approval as a basis on which to initiate the projection and restoration work proper. This happened in the winter of 1979/80 with architect Ole Ross as project leader.

In accordance with the original plans, Danish students from the School of Architecture's Restoration Department and the School of Conservation assisted in working teams averaging four members, where all those on the job shared in both drawing, supervision and practical work on the site. During the first year, 1980, the provisional surveys were extended to form the basis of the restoration project proper. During this period the piles of rubbish and accumulated materials

continue overleaf ...

VIII. EVOLUTION OF DESIGN CONCEPTS

(cont.)

surrounding the eastern and norther parts of the madrasa were removed, and excavations carried out to expose the original street level and uncover the foundations of the houses which had thronged around the little mediaeval building.

During 1981 and the first part of 1982 the restoration proper was carried out having been finally approved by the Egyptian authorities.

During this period lecturers from the School of Architecture and Conservation acted as consultants, and the dispositions were regularly discussed in detail with the Organization of Antiquities.

Like all important buildings in Cairo, the madrasa is built in lime stone from the Mokattam hills outside the town.

The plan is a cruciform resembling in principle that of Sultan Hassan's big mosque with four main iwans, but without proper living rooms for the students. Originally the central room has been covered, but has - like many others in the course of time - been furnished with a roof and a lantern, whereas the iwan-ceilings mostly are the original ones with their richly ornamented decoration.

Far up in this century the building was surrounded by houses, which even crowded up on the roofs and the walls of the madrasa breaking the wooden beams in the roof construction of the iwans. The very miserable state of the roofs have for years given access to rain, resulting in the destruction of the painted surfaces. The tall walls had kept their stability, but were very much damaged by water penetration, the separated salts having caused serious burstings in the wall surfaces.

All over the place repairs, restorations, stabilizations, replacements of stone, wood, gipsum, marble, lead, and stained glass had to be carried out, but the most important thing to do was to furnish the building with a new and moisture insulating roof of a larger durability than the traditional one. In order to reduce the continuous water-penetration it was furthermore necessary to carry out a drainage system in connection with removal of the piles of rubbish. Otherwise the cleaning, fixing and repairing of the interior decorations had been in vain.

X. PRESENTATION REQUIREMENTS

E. Curriculum Vitae, or Firms's Prospectus.

The Royal Danish Academy of Fine Arts consists a.o. of the School of Architecture and the School of Conservation and is run by the Danish Government under the supervision of the Ministry of Culture. The training given here is the highest and most extensive education in architecture which can be obtained in this country and is equal to any education at university level by both l'EUROPE UNIE/COMMUNEAUTÉ ECONOMIQUE EUROPEENNE/COMITÉ DE LIASON DES ARCHITECTES and in the EEC directory proposal for mutual recognition of architects.

Institute I of this School offers special training in Architectural History, Measuring and Restoration.

Curriculum Vitae of the persons in the Steering Group, and the project leader:

Steen Bjarnhof (28.05.1925)

1939-44	Training in Conservation
1963-76	Chief Conservator at the Royal Museum of Fine Arts, Copenhagen
1969-70	Leader of Centro Nordico del Restauro, Firenze
1977-82	Dean of the School of Conservation, Professor
1973-79	Danish delegate at the International Centre for Conservation, Rome
1982-	Chief of Department, School of Conservation
1975-	Unesco Consultant in different countries.

Hans Munk Hansen (06.10.1929)

1955	Diploma in Architecture, School of Architecture, Copenhagen
1967-	Associated Professor in Architectural History, School of Archit.
1955-65	Architectural Practice in different Islamic countries (Iran, Lebanon, Kuwait)
1965-	Architectural Practice in Copenhagen.

Vilhelm Wohlert (27.05.1920)

1944	Diploma in Architecture, School of Architecture, Copenhagen
1968-	Professor of Architecture, School of Architecture, Department of Restoration, Copenhagen.
1975-83	Surveyor of the Royal Palaces
1950-	Architectural practice in Copenhagen
1960-	Unesco Consultant in various countries.

Ole Ross, project leader (19.06.1947)

1974	Diploma in Architecture, School of Architecture, Copenhagen.
1974-	Architectural practice in Copenhagen
1980-82	Permanent stays in Cairo in connection with the restoration project.

IX. PROJECT SIGNIFICANCE

1. In what way is this project important?

Please describe the aspects of the project which represent a particular achievement (for example the technical, economic, or social achievement, or its response to culture, climate, etc.)

The main aim of the treatment by the Egyptian-Danish team was to secure and preserve this small but precious architectural and historical monument in a state as authentic as possible. Where it was technically and structurally sound, the original parts have been preserved - both from 1440 and from later works. Where new architectural elements have been introduced, they have been added in accordance with tradition, but in a manner not to be mistaken for original work.

It is our hope that our way to deal with such an artistic gem, according to the recommendations in the Charter of Venice, could have some influence upon other restoration works in the region and especially in Egypt, where there is a tendency to renew old buildings and thus losing the authenticity of the monuments.

The way in which we have achieved this result through collaboration between local specialists and our students and staff-members has been of great value to our training and research programmes. Of special importance in this instance is the opportunity it offered for collaboration between experts, craftsmen and students from two countries with different cultural backgrounds and traditions.

The following persons participated:

The School of Architecture: Mohamed Fahmi, restoring architect; Medhat el Menabawi, architectural historian; Moez Shaheen, conservator; Mona Zakaria, architect restorer,

Students of architecture: Povl Barfod, Inge Breitenstein, Anna Brix, Gitte Degener, Cathrine Gerner Hansen, Janne Harvey, Morten F. Jensen, Peter Klok, Hansa Larsen, Lau Lauridsen, Solveig Ellegaard Poulsen, Flemming Aalund.

The School of Conservation: Abdel Hafiz Mansour Mohammad Diabe, Mohammad es-Sayyed el-Hety, Mervat Saad Mahmood, Søren Bernsted, Peder Bøllingtoft, Marianne Carlsson, Jens Kähler, Benner Larsen, Karin Lykke, Jackie Munch.

Project Leader: Ole Ross

Artist, painter: Niels Nedergaard

Secretaries: Karin Berg, Marianne Schou

Teachers and consultants: Steen Bjarnhof, conservator; Hans Munk Hansen, architect; Keld Helmer-Petersen, photographer; Curt von Jessen, architect; Mogens S. Koch, photographer; Mogens Krustup, architectural historian; Jorgen Nielsen, engineer; Ib Rasmussen, architect; Ture Wester, engineer; Vilhelm Wohlert, architect.

2. Please indicate the degree to which the client and users are satisfied with the project.

According to our impression, the project has been strongly appreciated and is pointed out as a model by the Organization of Egyptian Antiquities. Moreover, the project attracted considerable attention because of its unusual organizational features, for instance, there were many official group visits from the American and Egyptian Universities of Cairo, and the Egyptian Television Service made a film about it during the course of the work.

X. PRESENTATION REQUIREMENTS

1. The materials described below are the minimum requirements for project presentation. Please note that standard presentation dossiers are prepared by the Award, and materials should not be mounted or bound. All materials should be clearly identified. The following should be submitted:

A. Map indicating location of project in city, community, neighbourhood, or landscape.

B. Ten (10) photographs; preferred and maximum size for A4 presentation (18 × 24 centimetres).

C. Twenty (20) slides; 24 × 36 millimetres.

D. Drawings; preferred and maximum size for A3 format presentation (29.7 × 42 centimetres).

Site, Roof, and Massing Plans;

Floor Plan(s);

Elevations;

Sections.

E. Curriculum Vitae, or Firm's Prospectus.

2. The submission of additional materials is encouraged. Please specify any appended materials not listed above.

"Arkitektur", Danish Architectural Magazine.

"Sfinx", Danish Archaeological publication.

"Restoration in Cairo", New Year 1984 publication of the Róyal Danish Academy,
Copenhagen

"Monumentum", No. 4, 1983. The world of conservation.

An interview with Vilhelm Wohlert. (Offprint)

"Monumentum", No. 3, 1984. Collaboration in Cairo, by Ole Ross.

"Udvikling", Danmark og U-landene, 6/1982.

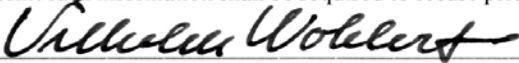
"Al Gawhariya Madrasa", Egyptian Antiquities Organization, Ministry of Culture.

3. Please indicate other sources of information on the project, e.g. publications, contacts, etc.

A scientific publication of the project^{x)} is under preparation aiming at the information on experiences and knowledge gained to the benefit of similar kinds of projects. The manus is ready for application for economical support from international funds.

^{x)} in English

Please note: The submission of this Record is a prerequisite to candidacy for the Award. All information contained in and submitted with the Record will be kept strictly confidential until announcement of the Award is made. Subsequently, such information may be made available by the Aga Khan Award for Architecture for scholarly purposes only. Nevertheless, other persons wishing to publish, reproduce, or reprint such information shall be required to secure prior permission from the author in each instance.

Signature 

Name (please print) Vilhelm Wohlert Date March 5, 1985

All Materials should be forwarded to:

The Aga Khan Award for Architecture

Award Procedures

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