



The Aga Khan Award for Architecture

32, chemin des Crêts, 1218 Grand-Saconnex, Geneva, Switzerland, Telephone (22) 98 90 70

1983 ARCHITECTS' RECORD

CONFIDENTIAL

I. IDENTIFICATION

- A. Project Title Javadabad Elementary School
- B. Postal Address Javadabad village girls school, near the town of Varamin, Tehran Province (Ostan-e-Tehran), Iran.

II. PERSONS RESPONSIBLE

(Please give name and address for each. If more than one, please state precise roles and relationships.)

A. Client/Owner

Ostandari Tehran, daftar fanni, (Provincial Government of Tehran Technical Bureau), Chief architect, Mr. Jafari. (originally Mr. Najafi, ex deputy governor of Tehran).
Modiri Street. Daftar Fanni- Ostandari Tehran, Tehran, Iran.

B. Architect/Planner

E.Nader Khalili

C. Consultants (e.g. Economist, Sociologist, Demographer, Engineer)

Mr. Manouchehr Sedehi. Rural development specialist, engineer.
Mr. Mahmoud Hejazi. Architectural student.
Mr. Ezzat o Allah Salmanzadeh. Architectural student.
Miss Fatemeh Nahiä Khalili. Social worker.
All worked without pay.

D. Contractor

E.Nader Khalili

E. Master Craftsman

Ostad Asghar, village mason.
Ali Aga, the original kiln man for the Ghaleh Mofid, he fired the first classroom and thought the technique.

III. USE

- A. Type(s) of Use Elementary school
- B. User/Occupant Javadabad village children, girls .
1. Occupation Students
2. Income Level Very low
- C. Specify any change(s) between planned and actual use. Designed for boys and girls, as adjacent schools with common administration.Used for girls only.

IV. PROJECT HISTORY

- A. Programme Development
1. Date of Commencement April 1978
2. Date of Completion Continued in different stages
- B. Design
1. Date of Commencement May 1978
2. Date of Completion June 78 basic design was set
- C. Construction Several times interrupted because of the Revolution and war crisis.
1. Date of Commencement Oct. 1979
2. Date of Completion Sept.1980
- D. Date of Project Occupancy Winter 1980, Spring 1981

V. PROJECT ECONOMICS

(For Costs, please give amounts and currencies. Specify their date(s) of validity)

- A. Total Initial Budget 3,200,000 Rials, tax deducted
Demolition & landscape not included
- B. Total Actual Costs 3,100,000 R.(approx.\$ 42,000. U.S)
- C. Analysis of Costs
1. Land Donated by the villagers
2. Materials 600,000 Rials - 20% of cost
3. Labour 2,500,000 R. 80%
4. Professional Fees None
- Note: cost of the main material, eart-clay, transported: 160,000 R
- D. Source(s) of Funds (indicate percentage) or 5%. Cost of the fuel oil: 90,000R. 3%
1. Private _____
2. Public 2.a- Provincial Government, Tehran
- a. Local (Ostandari Tehran) 100%
- b. National _____
- c. International _____

(Please continue overleaf if necessary)

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VI. CONSTRUCTION DETAILS

A. Site Area and Characteristics

1,050 sq.m. -- The site of the old ruined houses at the heart of the village. The village is very old and close to desert.

B. Total Floor Area of Individual Building(s)

500 Sq.m. total.

C. Structural System (describe)

Geltaftan, (firing clay, in Persian). Adobe and clay walls and roofs. Arched openings, vault and dome covering, traditional. Fired and baked after the structure was completed. The building became like a kiln, fired from inside.

D. Materials (describe and indicate whether locally produced or imported)

1. Infill Clay-earth and lime :
2. Rendering of Facades Gypsum plaster or straw mud .
3. Floors Brick borders, lime-earth base , a layer of cement finish .
4. Ceilings Gypsum plaster or exposed, fired in-place adobe brick.
5. Others (interior and exterior) 94% of all materials were local.

E. Site Utilities and Building Services (describe)

Outhouse toilets, electric lights, drinking faucets. Heating is by individual oil burners utilizing the same vents used for firing the structure.

F. Construction Technology

1. Describe the Basic Method of Construction

Geltaftan: structures built with adobe and clay, same as the traditional buildings, and fired and baked in-place, similar to the traditional kilns.

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

All were fabricated on-site.

G. Type of Labour Force (indicate percentage)

- | | | |
|--------------|---|------------|
| 1. Skilled | Master adobe maker & <u>Mason- Kiln man</u> | <u>30%</u> |
| 2. Unskilled | <u>Adobe maker, labors</u> | <u>70%</u> |

H. Origin of Labour Force (indicate percentage)

- | | |
|-------------|--|
| 1. Domestic | <u>Domestic 95%</u> |
| 2. Imported | <u>5 5% teaching firing</u> |

planned, we made our floors with lime-clay slabs and covered them with a layer of cement finish, with brick lining. The courtyard was made with gravel and landscape sections, but replaced by asphalt as demanded by the client.

The Javadabad school and the Ghaleh Mofid rehabilitation projects are two modest products of the Geltaftan process, philosophy and the people involved. Even though they have passed the test of time (more than two harsh winters), the true test could be seen in the old kilns of the world. The possibilities that Geltaftan presents could be of great value for the "Architecture in Development." If the philosophy behind the "Elements" is seriously followed, then a meaningful contribution to minimum shelter and the betterment of living environment could be made.

VIII. SIGNIFICANCE OF PROJECT

In what way is this project important?

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

Please read the book *Racing Alone* for in-depth answer to this question. The book is part of this presentation.

There are many aspects to the Geltaftan when looked at as a process rather than a project. The tangible achievements have been:

- 1- Rehabilitation of old adobe and clay houses and strengthening the weaknesses of the material by taking the Element of Fire to them. Utilizing the art of ceramic glazing & integrating it into the architecture. Creating hygienic environment by using the fire instead of the chemical sprayers. These were done in the Ghaleh Mofid project to a certain degree.
- 2- Constructing lowest possible cost buildings, adobe buildings, with local material and labor and traditional architecture. Javadabad school project, as an example.

Possibilities:

- * Utilizing the system for a prefabrication of building system by creating a complete room; fired and glazed, and arranged on the site.
- * Building underground structures by digging into the clay lands and firing and glazing the spaces.
- * Cutting sewer and water channels, reinforcing the the irrigation canals with clay, and firing them in-place.
- * Building bomb shelters, available to the poor, by digging and firing or creating clay-mounds and firing the spaces.
- * Creating underground storage tanks at the lowest possible cost, by the same method of firing and glazing.
- * Firing the earth cliffs or hills along the seas or canyons to resist the erosion and mud-slide.

Bringing a true hope for a minimum shelter to the poor of the world by utilizing the God given materials, the Elements: Earth, Water, Air and Fire.

Please see page 4/5.

(Please continue overleaf if necessary)

IX. DOCUMENTATION

Please indicate the materials you enclose for project documentation:

- ☒ 10 Photographs; Color, and Black & White; 8" x 10" (18 x 24 cm).
- ☒ 20 Slides; Color, and Black & White; 35 mm.
- ☒ 1 Drawings: Community plan, Site plan, Floor plans, Sections, Elevations.
- ☒ Project Brief/Programme
- ☒ Biographical Data
- ☒ Other (Please specify: *Racing Alone* etc. _____).

Please note: The submission of this Record is a prerequisite to candidacy for the Award. All information contained and submitted with the Form will be kept strictly confidential until the announcement of the 1983 Award recipients. Subsequently, such information may be made available by the Aga Khan Award Foundation for scholarly purposes only. Nevertheless, persons wishing to publish, reproduce or reprint such information shall be required to secure prior permission in each instance.

Authorized Signature E. D. Khalil Date May 30, 1982
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