

PROJECT SUMMARY

QATAR NATIONAL MUSEUM

Doha, Qatar

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QAT. D63.

316.

completed: June 1975 (Phase I)

I. OBJECTIVES

- A. To reinforce the feeling of national identity by presenting the geological evolution, history, ethnography and natural history of Qatar to visitors, local populace and, especially, schoolchildren.
- B. To preserve for posterity the evidence of Qatar's history and traditions, which would otherwise be lost.
- C. More specifically, to restore a complex of buildings which is intimately linked with that history.
- D. To provide research facilities for local and foreign scholars and institutions interested in the area.
- E. To provide a place of recreation for Qataris and visitors.

II. DESCRIPTION

A. Site

- 1. The nucleus of the museum complex is a group of old buildings which had been one of the residences of the Emir's family. These were situated outside the center of Doha, on the seafront (until the new corniche road was built on reclaimed land in front of them).
- 2. There are four main components in the new museum:
 - a. the old palace complex, which has been restored;
 - b. the new Museum of the State, built along the north wall of the palace complex;
 - c. an artificial Lagoon between the palace and the corniche which recreates in part the previous setting;
 - d. a Marine Museum and Aquarium on the Lagoon.

In addition, there is a refreshment area, car park, service buildings and room for future extension. The site totals about 37,500 m² (403,500 ft²). There are paved pathways between the various parts and the entire site is landscaped.

3. The palace and Museum of the State record the life, at the beginning of this century, of a prominent Qatari family and of the Bedu nomad in the desert. The Marine Museum and Aquarium show Qatar's relationship with the sea. Several old dhows are moored on the Lagoon.

B. Project History

1. The creation of a National Museum was one of the first decisions taken after the accession of Shaikh Khalifa Al-Thani in 1972. Qatar had already embarked on a period of rapid social and economic change, and it was his intention that the Museum should capture, before it was irrevocably lost, a way of life which had remained more or less static for centuries. The restoration of the old palace complex was an integral part of this plan.
2. Little material on Qatar existed. The planning consultants (M. Rice & Co.) gathered a team of foreign scholars and archaeologists to undertake a two-year programme of research into the history and ethnography of the State. In the meantime, the site was cleared and the restoration of the old buildings began. Designs for the Museum of the State were developed with the consulting architect as information came in from the researchers.

A basic 7.5 x 7.5 m module for the layout was adopted at an early stage.

3. Local input at this stage was twofold: the restoration of the old buildings was entirely in the hands of the Qatari Department of Public Works; and the collection of ethnographical objects for display was entrusted to a committee of Qatari notables. A representative of the Ministry of Information was involved in all decisions during Phase I, and stayed on as a consultant for Phase II.
4. The restoration of the old buildings and the construction of the Museum of the State formed the Phase I of the works, which was completed by June 1975 (when the Museum was inaugurated). Phase II (Lagoon and Marine Museum and Aquarium) was not completed until October 1977 and is therefore not considered in detail hereafter.

III. DESIGN, CONSTRUCTION AND USE

A. "Amiri" Palace

1. History

The old Amiri Palace dates from the lifetime of the present Emir's grandfather, Shaikh 'Abdallah bin Qasim Al-Thani. The complex took shape in the early years of this century, while Qatar was still under Turkish domination. The nucleus was formed by three L-shaped courtyard houses belonging to Shaikh 'Abdallah and his sons Shaikh Hamad and Shaikh 'Ali. The "public" areas of the compound included a small and a large majlis or reception hall and various servants' and retainers' quarters. The whole was surrounded by a wall, with gateways on three sides. All of these are built in the traditional style of the Arabian Gulf.

In 1918, after the Turkish withdrawal, Shaikh 'Abdallah caused a new and impressive majlis to be built by a well-known architect from Bahrain. This is the two-storey arcaded structure which now dominates the compound.

(The architecture of the complex is fully described in The Old Amiri Palace by G.R.H. Wright, which also includes an excellent account of the building methods and materials used. Supplementary information on the latter is contained in Annex I to this report.)

These buildings were restored (or reconstructed - see below) and now house an ethnographic display - of which the buildings themselves might be said to form a considerable part. The Inner Majlis remains the focal point of the complex. Being relatively secure, it is used for displays of precious objects, coins, medallions, etc.

As the Museum was being constructed, the physical surroundings of the complex were being transformed for other reasons: the building of the corniche on reclaimed land to the north and east meant that it was no longer lapped by the sea; the houses and mosque which had occupied the land to the south of it were cleared to make way for a two-lane highway leading down to the corniche. It was therefore decided to build a new main gate in the south wall, giving access to the public car park on that side, and not to reconstruct the ruined gateway in the west wall.

2. Restoration or Reconstruction?

Shaikh 'Abdallah ceased to live in the old Amiri palace in 1923, and by the 1960's the whole complex was badly in need of repair. To judge from photographs taken before the restoration, many of the roofs had

collapsed and the Coffee House (Small Majlis) and Shaikh 'Ali's house, at least, had lost part of their arcades (which were false arcades since, as Wright points out, the structures were trabeated and the arches carry nothing but their own spandrels). Nevertheless, the other structures seem still to have been standing, at least up to parapet level. This does not, of course, mean that they were sound since they were very insubstantially framed structures, with narrow upright piers braced by rafts of palm-trunks bound with rope.

Unfortunately, it is now impossible to determine exactly what state they were in, or what was done to them, as the restoration was not documented in the normal way. The Department of Public Works relied on what photographic documentation they had on hand, rough sketches, and the memories of old retainers, etc. Nor were any specifications for the restoration work drawn up: it began, precipitately, the day after the decision was taken to proceed with the project. Already, there are divergences in different people's accounts of what happened.

It seems clear, however, that many of the buildings (not the Inner Majlis) were partially or completely taken down to their foundations and rebuilt. No changes were made either in plan or volume. Indeed, the foreman in charge of the work, Mr. Aş-Şad, states that they were rebuilt on the same foundation trenches.

What were they rebuilt in? Again, the foreman states that the original materials were used - that is, rubble masonry with gypsum mortar (jugg) and renderings. But this does not seem everywhere to have been the case - at least from a cursory inspection of those parts which are visible. For instance, the crow-stepped battlements on the three Baits and some, if not all, of the parapets are clearly made of reinforced concrete - which has begun to crack - with a gypsum plaster "float". In addition, the roofs are of concrete sealed with bitumen (this was done at the express request of the Minister, it seems), and have again caused maintenance problems.

Finally, comparison with work currently being done by the Department on one of the very rare wind-tower houses in Doha seems to confirm that, even if the basic wall structure is still of masonry, it will have been "reinforced" and cement rendered. The Museum brochure hints as much when it says that the old palace was restored "as faithfully as possible, though in modern materials". (This assertion is, however, hotly contested by Mr. Aş-Şad.)

B. Museum of the State

1. The new Museum of the State is set along the northern wall of the complex, on the site of the former kitchens, storehouses, etc. It is the largest building in the complex, and the only one on three levels. However, it is sunk below the rest of the site to reduce its scale so that it fits in with the other buildings. The modulated, arcaded facade is modern but not aggressive, and is scaled and proportioned to echo the older buildings (particularly the Inner Majlis, which remains the dominant element in the complex).

The Museum contains displays on the geology, archaeology, ethnography and natural history of Qatar. The visitor is taken progressively through the levels of the building, from Qatar's geological origins to the modern oil-state of today.

The ethnographical section focuses on the Bedu nomad, and is complemented by a number of audio-visual presentations (short-loop films). The building also contains offices, a lecture theatre, library and (planned) conservation facilities.

2. Integration

It was the client's specific request that the new building be within the old palace complex. The minimum volume was dictated by functional considerations and the solution adopted, of sinking it one floor into the ground, is successful in reducing its apparent bulk. It does not dominate the palace complex despite the length of its facade. The recessing of the exterior wall behind the arcade has the effect of creating heavy shadows which also help to break up the facade. The temptation to decorate the facade with geometrical panels was, mercifully, resisted.

It is unlikely that anything would have been gained by setting the new building further back, as this would have destroyed the sense of enclosure of the whole complex.

The transitions between the Museum of State and the old palace buildings to either side of it are rather summarily treated. The external facades of the new building overlooking the staff car park are plain, except for a number of asymmetrical slits containing recessed windows which light the two upper floors.

The sunken courtyard in front of the new building suffers from the fact that the damp-proof seal has been breached - the marble paving has buckled as a result of "dolomitization" - and the fountain is temporarily out of working order. (There have apparently been other problems with the damp-proofing of the lower level, and

much of the paving has had to be renewed.)

3. Museum Layout and Display

Modern display techniques have been used, with a relatively small number of objects accompanied by copiously illustrated texts in Arabic and English. The technical quality of the display material (all imported) is high, and it is noticeable that where new exhibits have been added subsequently they are of markedly inferior quality in terms of layout, lettering, materials and content. The presentation is scholarly.

The interior layout of the Museum is, perhaps, unduly complicated. It leaves a number of "dead" (and inaccessible) spaces which attract vermin, and the path which the visitor must follow is not always clear.

Maintenance of the displays has been somewhat neglected, and it appears that no provision has been made on a regular basis for acquisitions or development of the Museum, although the Minister confirmed that the library/archive side was to be built up. The conservation facilities have not been activated.

C. Materials and Technology

The materials used in restoration are discussed above. The basic structure of the Museum of State is a poured in-situ concrete frame, concrete slabs and dropped beams. The floors are finished with polished, patterned marble or (upstairs) wool carpet tiles. The walls are plastered and painted, or fabric-faced, and the ceilings are main acoustic tiles. The exterior walls are finished with a white gypsum-cement render.

Steel, cement and timber for the formwork are imported.

D. Construction

The restoration of the old palace buildings was carried out by the Department of Public Works with direct labor. Construction of the new building was sublet to a number of small local contractors. The simple, regular reinforced concrete structure - with minimum steel to concrete ratio - facilitated construction by low-skilled labor. All finishes and infill materials, including walls, doors, windows and tiling, were prepared and fitted on-site. Although a high level of accuracy was required, the technology was intermediate to low.

Skilled labor was 15% and imported was 60% (a normal figure in Qatar).

IV. CONSTRUCTION SCHEDULE AND COST

A. Schedule

The project was conceived in May 1972. The brief and design were completed by December 1972 and construction commenced in 1973. Phase I of the work (restoration and construction of the Museum of the State) was completed in June 1975. Phase II (Marine Museum and Aquarium) was opened in October 1977.

B. Costs

The project was financed from municipal funds. The entire cost, including the marine section, was 60 million Rials (approx. US\$15 million): 6 million Rials for professional fees and 54 million Rials for materials and labor. Planning fees were £30,000 (US\$60,000) and architectural and engineering fees were 2.16 million Rials (6% of the original 36 million Rials building budget).

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Date: May 1980
Doc.: P. Rodgers (Technical Reviewer)

9.VI.80(VIII)

Note on some traditional building materials used in Qatar & ^{Qatar} ~~Qatar~~
(cf. G. E. H. Wright, The Old Amir Palace, Doha, Qatar (Qatar National Museum, 1975))

I. QATAR

Walls - The core of the wall is made from rubble, either quarried (=haga) or picked up on the foreshore, or, for non-loadbearing partitions, slabs of coralline sediment, set in mud mortar (=foroush) or, more rarely, juss. The masonry is usually not coursed, although a herring-bone pattern is occasionally found in free-standing boundary walls. (It was suggested that this was not an indigenous technique, but might have been introduced by slaves from East Africa.)

Walls are plastered inside and out with gypsum plaster (juss) or mud plaster, depending on the owner's means. Although it is by far the harder material, juss would for preference be used to produce a fine surface on the inside walls, rather than to protect against the weather on the outside walls.

Walls might be capped with an even harder mortar, called khikri, which was also used to protect buildings close to or washed by the sea.

Juss is made from hydrous calcium sulphate obtained from foroush, burned, ground to powder and sieved, and mixed 3:1 with quicklime. It is quick-setting but rather heavy. If well maintained it can last for up to 60 years, or more, but it is prone to fall off under its own weight before then. Juss has good resistance to salinity.

Khikri is made from "red mud" (tamam), gathered from depressions in the interior of Qatar after rainfall. This mud (which is probably reddened by bacterial action) is burned, ground and used as a hydraulic cement where particular resistance is needed, especially against salt water. It is said to last a century without maintenance. Unburnt tamam, wetted for 2 - 3 days to 'ferment' it and mixed with straw, is also used for roofing.

Foundations are shallow in Qatar, since the bedrock is generally close to the surface. Typically they would be one cubit wide and one cubit deep. The foundation courses are of exactly the same composition as the wall above, laid directly in the rock without further preparation. The bedrock tends to be porous and the groundwater can be saline, with a relatively large concentration of magnesium salts.

Juss is usually left unrendered; it weathers to a sandy pink-yellow. Indoors, in the more important structures, such as the majlis, it may be whitened with a lime or gypsum wash. Juss is also used for flooring.

Ceilings - As well as tamarisk and mangrove, imported from India and Persia, two African woods are used for roofing: limewood (which is invariably coated with pitch) and simaranga. The latter is renowned for its resistance to insect attack.

* lit. "gypsum". The word is used for the pure material and for gypsum plaster, but more commonly it refers to the plaster.

Palm-trunk reinforcement - Palm-trunks are used to reinforce masonry, either as wall-plates or as lintels. Three or four sections of palm-trunk are commonly roped together, which not only increases their mechanical strength, but also provides a better key for the juss plaster.

II. ^cOMAN

Juss - The gypsum for juss plaster is obtained from lumpy grey deposits found near the surface in certain localities. This is burnt and crushed to a powder before being carried to the building site, where it is slaked with water and must be used within 2 - 3 hours. It used to be applied in two or three layers, each 1 cm. thick.

Juss is one of the main ingredients of sarooj, which is described by Walls as a hydraulic cement. It is used to line falaj channels, wells, etc., but is also found widely as a wall rendering. It is said to contain lime and gypsum, roasted crushed stone and volcanic sand. The exact composition can only be established by chemical analysis, but it would seem to be akin to pozzolmana. The texture of sarooj is hard and gritty and it weathers to a brownish pink. 29

Information provided by Sa'îd EL Badîd and Ahmad As-Sâd
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