

TRADITIONAL BUILDINGS IN AL AIN



by Philip Iddison



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Cover: The entrance to Sheikh Zayed Palace Museum at night



Restored fort at Hili viewed from the oasis

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INTRODUCTION

Al Ain was an important regional centre in the Emirates before the advent of oil wealth and the modern development of the country. There were extensive oases of date gardens and associated agriculture, supplied by permanent groundwater supplies. Although journeys by camel from Abu Dhabi could take up to five days, families would travel to the area for the summer to avoid the heat and humidity on the coast and to supervise the date harvest from

June to September. From earliest times it was a regional administrative centre.

The collection of seven main villages associated with the date gardens was also a significant trading centre, serving routes from the both east and west coasts and the extensive interior of the country; the sand desserts to the south and west and the mountains to the east and north. Dates and other products were available for trade and supported a resident population of several thousand people. There was an important camel market. The villages had homes and mosques, markets, forts and falaj watchtowers. The palace of His Highness Sheikh Zayed was located on the edge of the Al Ain oasis, which was the most extensive of the oases in the area. The oases have probably supported the economy of Al Ain for the last five thousand years.

The people made their homes in and around the oases in closely united communities. Some homes were permanent constructions of rooms around courtyards. Others were made from materials that could be moved such as **arrish** (palm branch) shelters and tents made from goat hair. Families with flocks of animals had to be able to move to new grazing areas and transport their homes with them. Much of life was lived out in the open as the weather made an enclosed home almost unnecessary and there were few concerns about security within the community.

Each community was protected by one or more forts and there were falaj watchtowers overlooking the underground water channels which brought the water to the oases. Mosques were also constructed and used on a communal basis. An important local family usually sponsored each mosque.

The oases of date palms are still actively cultivated. Around and within them are some of the traditional buildings that have survived from an earlier era. Many have been restored and some of these are open to the public for all to see how people lived in the past. The Al Ain Museum has an excellent display of household goods which people used in their lives. Some items, such as the coffeepot,

are still very much a part of people's lives today. Inside the Eastern Fort there is a display of traditional buildings including a **bait a'shaar**, a bedouin tent, and two arrish houses.



Bait a'shaar, a bedouin tent within the Eastern Fort

The fort is also known as the Sultan Fort after its constructor and is located next to the Al Ain Museum in the city centre.

MATERIALS

Material from the local environment was used almost exclusively for building construction. The materials were used efficiently and also with ingenuity to match the climatic conditions. Shade was used extensively to provide cooler conditions for living and good ventilation was encouraged for the same reasons.

Date palm products were used extensively for both light and heavy construction. Split palm trunks formed lintels and rafters. The leaf ribs, **zor**, were used as small lumber or were woven into heavy matting, **da'an**, and open textured screens both of which could be used for arrish construction. Palm leaflets were woven into a lighter form of matting and the interleaf fibre called **lif**, was used as an insulating layer in roof construction.



Da'an and split palm logs used to make a roof

Acacia and other locally available woods were used to form lintels and doors. Imported wood was only used for the largest doors and latterly sawn wood was made into window frames and shutters. Teak, **saj**, was the preferred material for the large fort doors, which can still be seen, in their original condition, at the Eastern and Jahli forts. These massive doors are well studded with iron nails and have a small postern gate to allow individual people to enter.

Iron was used sparingly, as nails for carpentry and for display on doors. Some hinges were wrought from iron and windows were barred with iron rods. Occasionally brass was used for decorative purposes.



Detail of the main door of the Eastern Fort

Mud brick and stone were the principal materials for walls. Mud bricks had a clay and silt content of 35-45%, which provided the cohesive element. Mud mortar was used between the bricks and stone and also for floors and roofs. It was also used as a render on the outside of walls and was sometimes reinforced with straw.

Sarooj, a cementitious material that sets hard when mixed with water, was used for important buildings. A special natural red earth, **teen hamra** had to be found. This was mixed with animal dung and water and left to ferment for a few days. It was then made into flat cakes and dried in the sun. When the cakes were hard they were stacked in layers in a pit with palm fronds between the layers and

the whole mass was burnt. The residual material was broken up and sifted. It was then ready for use in mortar, particularly for external rendering, as it has good weather resistance. Gypsum plaster, **juss**, was also used for internal finishes on important buildings.

The roof of a mud brick building was built up in layers supported on substantial rafters cut from palm wood. On top of this da'an mats and then palm leaf matting were laid. This was topped by a thick layer of mud mortar, carefully sloped to take the relatively rare rain water to a spout. This was usually made from a hollowed out half section of palm trunk that discharged the water away from the wall to prevent erosion damage. The span of a palm log rafter was a maximum of 3 to 4 metres and this controlled the width of rooms.



Interior of the restored mosque at a fort in Qattara oasis

MOSQUES

The construction of new mosques replacing older structures has been a major activity in the city with support from many prominent citizens. As a result there are only a few old mosques built with traditional materials. Even these are hard to identify as maintenance work has plastered and painted the exterior and interior, making them look like new.

Old mosques were quite small buildings and this helps to identify them. One between Qattara and Jimi oases has been restored and stands by the road quite near the refurbished market. Another on the southern edge of the Jimi oasis overlooks the extensive palm gardens and draws water from the local falaj for the ritual washing necessary before prayers.



Restored mosque in Qatarra Oasis

Mosques were not always constructed as buildings. A mosque can simply be defined on the ground with a neat line of stones to mark the shape including the **mihrab** to give the direction to Mecca, the **qibla**. There are several of these mosques to be found particularly around Jebel Hafeet and on the gravel plains around Al Ain. The area within the stones was cleared to provide a clean surface for the **rak'ah** (prostrations) of the faithful.

SHEIKH ZAYED'S PALACE

The palace of His Highness Sheikh Zayed bin Sultan al Nahyan, which is located on the western edge of the Al Ain oasis, has been restored and is now a museum. It is open to visitors and guided tours are provided.

The palace is a complex of courtyards, arranged to provide the privacy required for the Sheikh's family whilst also allowing selected access for people to meet the Sheikh for business in his position as ruler's representative. The palace was Sheikh Zayed's base in Al Ain from 1937 until 1966.

The external courtyards have a number of different **majlis** meeting rooms. An original majlis has a palm trunk ceiling whilst a later majlis block of two storeys had rooms for receiving local dignitaries on the ground floor and a similar room above for receiving foreigners. The latter has western style furniture rather than the floor cushions which were more traditional and which were provided downstairs. A room for the coffee maker is near to hand, an essential ingredient of local hospitality.

An inner courtyard contains the main kitchen and storeroom for the complex plus the family rooms. The Sheikh's private quarters are within a further courtyard to provide the privacy required.



Majlis in Sheikh Zayed's Palace

In an era before air conditioning was available, buildings were kept relatively cool by the provision of broad verandahs to shade the main rooms and also by incorporating open screens to allow the breeze to pass through rooms. Many of the screens are made from decorative plasterwork in a variety of geometric patterns.

HOUSES

There are a few traditional houses left in the city. Those that have survived are deep in the oases. Some have been rebuilt along traditional lines and put to new uses, particularly in the Qattara oasis. Like the forts they are based on a courtyard pattern with substantial perimeter walls and a number of rectangular rooms around the edge of the yard. They present blank walls to the outside world, roof gargoyles and small oculi or ventilation openings being the only exterior features.

The exceptions are majlis rooms, usually located near the main entrance gate and easily identified by the low-level windows providing light, good ventilation and a view of the outside world. These rooms were used by the owner to meet and entertain guests with coffee, dates and a meal. Business, whether social, financial or political would be discussed and most importantly news would be shared.

Domestic buildings were modest in size but provided the necessary privacy for the family. They were constructed as needed and were grouped informally as space and resources permitted. The use of materials was particularly resourceful, relying on what was immediately available and the skills of the local people.



Interior of a reconstructed arrish house at the Eastern Fort



Jahli Fort, the concentric tower

FORTS

The layouts of fortified enclosures have ancient pedigrees. A circular strong tower from the third millennium BC was excavated at Hili. Some three kilometres away stands its successor, the concentric fort at Hili, which has been restored and can be visited. The fort at Jahli is another excellent example of this type of fortification.

Al Ain has a particularly rich collection of forts, many now restored and some open to the public. Their locations are shown on the accompanying map together with other traditional buildings in the city. The Sultan or Eastern Fort is next to the Al Ain Museum and is a good example to view. Projecting circular towers at the corners enabled defenders to protect the walls with flanking fire. The main door is original and weather beaten. Internally there are few

buildings as the fort was not meant to be a residence, only a strong point in times of conflict.



View into the inner courtyard at Jahli Fort

Jahli is a large fort complex with an external courtyard dominated by a freestanding concentric strong tower. An inner square courtyard has the main entrance set at right angles to the external entrance. This forced any attacker to traverse the full length of the courtyard to reach the second gate, all the time exposed to the defenders on the inner wall. This fort was used by the Trucial Oman Scouts as their headquarters until the federation of the United Arab Emirates.

The Murraba fort in the town centre near the coffee pot roundabout has also been restored and is still used by the police. Mraijeb fort in north Masoudi has been incorporated into a Family Garden. Forts in Hili and Mutaredh oases await restoration and show how mud brick buildings need constant maintenance to prevent erosion, despite the dry climate.

FALAJ WATCHTOWERS

Several falaj watchtowers are still in existence in Al Ain. They are usually located close to the point where the falaj enters the oasis and on high ground. Falaj security was paramount. The towers enabled at least some of the route of the falaj to be watched at times of disturbance whilst still being able to alert the local community.

Examples can be found at Hili, Qattara and Jimi. They are simple round or rectangular towers constructed of mud brick and some stone. The entrance was usually at second storey level in common with many other fortified towers in the Emirates. Access was by means of a rope thrown down the side of the tower and footholds in the tower surface. These can clearly be seen on the Jimi tower.



Jimi falaj watchtower

The Qattara tower stands at the southeast corner of the oasis and has not been restored. It is not very high but the top may have eroded and it has a commanding position. There are a number of restored and original mud brick dwellings along the east edge of the Qattara oasis, behind the shabiya housing south of the Qattara Club.

The Jimi tower also stands at the southeast corner of the oasis and seems to have been restored some time ago. It now has a ground floor entrance but this is not original as the old entrance can still be seen above and to the left. This is a tall tower and is located near one of the Jimi forts, which has also been restored.



Falaj watchtower at Hili

There are two towers at Hili quite close to each other, perhaps a relic of tribal rivalry? They are on the north side of the oasis and the falaj they are guarding originates to the north of Hili Fun City. One is circular, the other rectangular, each on its own mound with

entrances at ground level facing the oasis. Both have been restored quite recently. They are clearly visible from the east-west dual carriageway, which bisects the Hili district.

OTHER STRUCTURES

The most common structures in the past were the garden walls in the date palm oases. The majority of these were mudbrick with some freestone retaining walls and latterly cement block walls. There were kilometres of these walls dividing the individual plots in the five main oases of Al Ain, Mutaredh, Jimi, Qattara and Hili. There were also smaller oases at Jahili, Muwaiji and Masoudi

Old photographs of Al Ain record an exposed falaj aqueduct somewhere in the city, which has now disappeared. It could have been where the new falaj aqueduct carries the Al Ain falaj across Wadi Sarooj. The watercourse was open and was used for collecting drinking water and to provide water for animals. Elsewhere the aflaj are hidden from view until they emerge in the oases and are diverted into cemented or mud walled channels for distribution to the individual gardens.

In the Qattara oasis a suq or market has been reconstructed. It comprises two rows of shops facing each other across a shaded lane, a simple arrangement which has been in use since Abbasid times. A similar suq from that period was excavated at Jumeirah in Dubai emirate.



New mudbricks ready for a restoration project at Qatarra oasis

AFTERWORD

This information and photographs were collected by Philip Iddison as a personal record of the building heritage of Al Ain in the United Arab Emirates. All the photographs were taken in Al Ain over the last three years. Any errors or omissions should be addressed to him at phil.iddison@hydercon-me.co.ae

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