# The Coming of Islam and the Islamic Period in the UAE

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#### Introduction

Although the Islamic archaeology of the UAE has only been investigated in a sustained manner in very recent decades, the amount of information that it provides has been so great that, for the pre-modern period, it is now at least as important a source for the country's past as the rather sporadic and limited literary evidence. As a result of archaeological survey and excavation, form has been given to periods in the UAE's history that were hitherto invisible. The archaeological record now shows the nature of the UAE's settlement patterns and uses of the landscape, its social and economic structure, and an architectural tradition, little of which is apparent in the written sources. For the Islamic period, as for earlier times, archaeology is in fact often the only means to retrieve the past of the UAE and new fieldwork on sites related to the last 2000 years has brought the country into the historical framework of the Near East as a whole.

# The Landscape, the Environment and the Islamic Geographers

The landscape has dictated the nature of habitation in the UAE just as much in the Islamic period as it did in more ancient times. Beginning in the far west, the coast of Abu Dhabi and the interior is a harsh area with a band of salt flats (sabkha) between the sea and the gravel plains that precede the deep sands of the Empty Quarter desert. The coast is extremely inhospitable and unattractive for any form of settlement, consisting as it does largely of sabkha: after rain, this sabkha is virtually impassable for travellers. Furthermore, the sea just offshore is often so shallow and befouled by shoals that it is difficult for boats under sail to navigate. As a result, for both the pre-Islamic and the Islamic period, evidence of settlement on the coast of the mainland is rare west of Abu Dhabi up to the Qatar peninsula. By contrast, east of Abu Dhabi, at Dubai and Sharjah and in the northern emirates, ports are more frequent, although the shoreline is still encumbered by sabkha in many places.

There is a growing body of archaeological information to show that activity on the offshore islands, whether seasonal or permanent, has extended over a very long period and down to pre-modern times. On many of the islands there are numerous small stone-lined hearths for

the baking of fish: hitherto, these hearths have been associated with the later Islamic period and, indeed, older UAE inhabitants still know how to use them. However, C14 dating of ash deposits show that hearths on the island of Marawah, west of Abu Dhabi, belong to a series of dates ranging from *ca* 2281–1884 BC to *ca* 130–387 AD. Hearths of the same character from the island of Balghelam to the east of Abu Dhabi city provide a similarly wide date range, from *ca* 2269–1925 BC down to *ca* 764–395 BC, showing the longevity of this hearth cooking tradition. The coast of the UAE is, after all, the land of the *Ichthyophagi* of the Classical authors and, given the quality and quantity of the fish and shellfish in the waters of the Gulf, there is every reason for this hearth baking technique to have continued unchanged through pre-Islamic and Islamic times. Related to this economy are fish traps of which large stone-built examples constructed across bays are encountered on the islands of Ghagha' and Yasat al-cUlya, but these may be far older than the Islamic period in origin. The technology of reed fish traps, still encountered all along the coast, is also doubtless of great antiquity (Serjeant 1968: pp 486–514).

Behind the coast, the hinterland of Abu Dhabi emirate is a sand desert, with mountainous aeolian sand dunes rising to more than 300 m above the underlying palaeofloor gravels that preceded the arrival of the sands. Camel herding in this desert area has been central to the life of the nomadic pastoralist population throughout the Islamic period as well as in very much earlier times. The ancient river system of the Sabkha Matti in the west of the UAE has long since ceased to flow out of the Empty Quarter sands: however, the inland oases at Liwa and at Al Ain have reliable water sources and they supported date plantations whose products have provided a major element in the traditional local diet and economy since ancient times. Excavations at Dalma off the Abu Dhabi coast by ADIAS1 have shown the presence of datestones, presumed to reflect dietary use, which C14 analysis has dated to ca 5280-4950 BC. This constitutes the earliest evidence of the use of the date in Arabia. There is probably a very ancient tradition of exporting dates from the oases of the UAE to the coast, while dried fish and salt-packed fresh fish seem to have come in the opposite direction. Members of some tribes in living memory would migrate seasonally between the desert oases and the islands, herding camels and cultivating dates in the interior and fishing and pearling on the islands. It seems likely that such a pattern reflects practice over a very long period of time.

In the east and north of the UAE, the sands and gravel plains give way to the high rocky mountains of Jebel Hajar, part of the range that runs from Jebel Akhdar in the Sultanate of Oman through to Ru'us al-Jibal and Ra's Musandam, the lofty promontory that overlooks the Straits of Hormuz. Rainfall is heavier here and this is reflected in the far greater fertility that characterizes Ra's al-Khaimah, Fujairah and the parts of the emirates of Sharjah and Dubai that lie in this region. The terraced hillsides and mountain-top farmsteads are based on cultivation of grain and other crops, while sweet water retained in the gravels of the foothills allows farming on quite a large scale. Livestock rearing is based on sheep, goats and cattle, rather than the camel-based economy of the desert areas to the west.

Although Dibba, Julfar and Tuwwam (Al Ain/Al Buraimi) are mentioned in the Arabic sources from the arrival of Islam in the area, it is not until the ninth century AD that additional places names in the modern UAE begin to be recorded. Ibn Khurradadhbih (Ibn Khurradadhbih 1967: p 111), a former official in the Abbasid Caliphate's postal service, writing in *ca* 885–6, provides a series of itineraries that reflect the main routes through the Islamic world in his

day. He describes a coastal route from the Oman Peninsula<sup>2</sup> to Mecca, mentioning Farak, <sup>c</sup>Awkalan, Habat (?), and then al-Shihr, a port of the south coast of Yemen. It is unclear where the first three places were located although it seems that they should be sought along the Batinah coast of Fujairah and the Sultanate of Oman or in Dhofar and Mahra along the south coast of Arabia.

Elsewhere, Ibn Khurradadhbih (Ibn Khurradadhbih 1967: p 113) mentions the towns of Bahrain. Bahrain to the medieval Arab geographers meant not only the island that now bears the name but the mainland opposite and its hinterland. Within this broad definition of Bahrain, Ibn Khurradadhbih refers to al-Khatt, al-Qatif, al-Aara and Hajar, all apparently in Saudi Arabia today. The next place name he records is al-Faruq, and then Baynuna. The location of al-Faruq is unclear but today Baynuna (Baynunah) is an area in the Western Region of Abu Dhabi emirate. Mustawfi, writing before 740/1340, also mentions Baynuna in discussing Bahrain and other places in the Gulf (Mustawfi 1919: pp 135–6).

Ibn Khurradadhbih cites a verse by the eighth century poet of the Umayyad period, al-Nabigha, who refers to the wild cows of Baynuna. Given the nature of the desert landscape of the modern Baynuna, it is hard to imagine cows there and it may be that al-Nabigha refers to the indigenous Arabian oryx that used to roam wild in the Empty Quarter until they were hunted to near extinction in the twentieth century. Alternatively, al-Nabigha's use of the term Baynuna may be loose and may refer to a far broader area of the modern UAE. It is worth recalling that, in the more fertile northern emirates, there are still humped back cows that are indigenous to the country. Furthermore, there is a tradition in Fujairah emirate of pitching bulls against each other (Hellyer 1990: pp 50–54). Although this custom has been associated with the Portuguese presence in the UAE, local sources suggest that bull fighting is far more ancient. In this respect, it is worth recalling that the bull is a common motif in the pre-Islamic religious art of southern Arabia. Thus, while identifying the Baynuna cows with the oryx may be a reasonable interpretation of al-Nabigha's verse, there is a broad south-east and southern Arabian context into which his reference to wild cows could fit.

Al-Maqdisi in the tenth century AD describes the citadels (*qasaba*) of Oman, which included Suhar, Nizwa, al-Sirr, Danak, Dibba, Salut or Salub, Julfar, Samad, and Lasya Milh (al-Maqdisi 1967: pp 70–71). Elsewhere, he mentions Khasab in Musandam. He then mentions other eastern and central Arabian towns – al-Ahsa' (al-Hasa'), Sabun, al-Zarqa', al-Uwal, al-'Uqayr, and al-Yamama (today, apparently, all in Saudi Arabia or Bahrain). His itinerary generally runs from east to west and a number of the places he describes can still be recognized on a modern map: Suhar and Nizwa are now in the Sultanate of Oman; Dibba is in Fujairah and Sharjah territory, and Julfar is in Ra's al-Khaimah. There follows Lasya Milh and Samad, and the next place al-Maqdisi mentions, al-Ahsa', which is now in Saudi Arabia. Samad and Lasya Milh seem to be in the UAE but cannot be readily identified.

Abu'l-Faraj Qudama (Qudama 1967: pp 151–2), writing between 932 and 948 AD, gives an itinerary from Oman to al-Basra, *via* Qatar and al-<sup>c</sup>Uqair, recording a place between them called al-Sabkha ('The Salt-flats'). It was apparently in the UAE. al-Sabkha was also known to al-Idrisi (al-Idrisi 1836/I: p 157; 1972/II: p 162), writing in 1154 in Sicily for the Norman king, Roger II. He refers to an itinerary from Suhar, to Damar, Muscat, al-Jabal and Julfar. Al-Jabal must refer to the Jebel Hajar mountain range. After Julfar, al-Idrisi says that the

traveller sailed to Bahrain *via* the port of (al-) Sabkha. Al-Sabkha remains unidentified but it could be identical with al-Maqdisi's Lasya Milh, given the suggestion of salt in the latter's name and the meaning of al-Sabkha as 'salt flat'. However, the word *sabkha* itself is vague and generalized and thus could be anywhere on the salt flats (*sabkha*) that run along the UAE coast westwards from Umm al-Qaiwain to the far west of Abu Dhabi emirate and beyond to Qatar. Both Lasya Milh and Sabkha are located west of Julfar in al-Idrisi's itinerary, but whether they were predecessors of Umm al-Qaiwain, Ajman, Sharjah, Dubai or Abu Dhabi seems impossible to determine at present. It has been suggested that Sharjah should be associated with Ptolemy's Sarkoepolis and Lasya Milh and/or al-Sabkha. An alternative could be al-Jumayra (Jumeirah) near Dubai which was apparently still settled in the ninth century AD, and which would be a persuasive Early Islamic candidate for a settlement associated with the harbour of al-Sabkha or Lasya Milh (Potts 1992/II: pp 319–320).

While al-Idrisi is quite specific in his reports about the UAE, he should be treated with some caution as his work, produced in Palermo, was based on the reports of others, although these reports seem to be based on direct observation. To be understood alongside his geographical text is his famous map which appears in various versions of his work and which is one of the most significant documents for Arabian geography since the second century AD map of Claudius Ptolemy. Al-Idrisi's mapping and his account of the coast of the UAE is not superseded until the Portuguese mapping of the sixteenth and seventeenth centuries.

Al-Idrisi knew the western waters of the UAE as the Sea of Qatar and described the islands there briefly but accurately as desert islands that were frequented only by sea birds and land birds. The guano which these birds shed was collected and transported to al-Basra in Iraq where it fetched a high price for use on the farms and gardens to manure vines and dates at al-Basra itself and elsewhere. Al-Idrisi's report is remarkable in its accuracy. The colonies of seabirds on the offshore islands of western Abu Dhabi are sometimes vast, and islands favoured by them are indeed thick with their guano. The island of Kardal, off Ghagha' in western Abu Dhabi, for example, lies deep in the guano deposits of the thousands of cormorants which inhabit it. There are many similar nesting sites. Guano was still being collected by boats for sale as fertilizer as recently as 40 years ago (Khalfan al-Rumaithi, Bab Field, ADCO, 27.12.1998, pers. comm).

Al-Idrisi also mentions the pearl beds of the Gulf although he associates them with Suhar, Damar, Muscat, al-Jabal (*i.e.*, Musandam) and Julfar. However, he says nothing of the far more extensive group of pearl-beds that lie in the western waters of the UAE coast. This may be because the informants of al-Idrisi were more aware of the harbours whose fleets fished for pearls than the location of the pearl-beds themselves.

Yaqut, writing in *ca* 1225, recorded an itinerary which ran from al-Bahrayn in al-Khatt, to al-Qatif, al-Ara, Hajar, Baynuna, al-Zara, Jawatha, al-Sabur and al-Ghaba (Yaqut 1866–69/I: p 507). This itinerary seems confused, displacing Baynuna from western Abu Dhabi off to the north between Hajar and Jawatha, both in al-Hasa' in Saudi Arabia. Elsewhere, Yaqut refers to Baynuna as a place between Oman and al-Bahrayn, which is very vague (Yaqut 1866–69/I: p 802). He mentions that Tuwwam (Al Ain) had its own citadel (*qasaba*) and he states that the principal citadel of Oman was Suhar. Yaqut also refers to Julfar which he calls Jullafar or Jurrafar, describing it as a town in Oman which had many sheep and which produced cheese and *samn* (ghee) (Yaqut 1866–69/II: p 104; II: p 63).

Gasparo Balbi, the state jeweller of Venice, made a visit in *ca* 1580 to the territory of the UAE to investigate the pearling industry. He is the first writer to record place names between al-Qatif and Oman that are still in use today (Slot, 1993, 36 ff.). Like al-Idrisi, he knows the waters off the Abu Dhabi coast as the Sea of Qatar and mentions the following places now in UAE territory: Daas (Das), Emegorcenon (Qarnein), Anzevi (Arzanah), Zerecho (Zirkuh), Delmephialmas (Dalma), Sirbeniast (Sir Bani Yas), Aldane (Dhanna), Cherizan (identified as Khor Qirqishan, just off Abu Dhabi island), Dibei (Dubai), Sarba (Sharjah), Agimen (Ajman), Emegivien (Umm al-Qaiwain), Rasalchime (Ra's al-Khaimah), Sircorcor (Khor al-Khuwair), Debe (Dibba), Chorf (Khor Fakkan) and Chelb (Kalba).

When the Portuguese under Albuquerque arrived in the area in the late fifteenth century, they noted Julfar among the coastal towns as a place with a fleet, and Duarte Barbosa writing in the sixteenth century recorded that the people of Julfar were merchants and navigators. Pedro Teixera speaks of boats from Bahrain and Julfar going each summer to the pearl fisheries further up the Gulf. He also mentions local pearl fisheries off Julfar. As the discovery of late Islamic ceramic scatters suggests, there was activity in this period on many of the western Abu Dhabi islands near the pearl beds and pearl oyster middens are frequently found on the islands, although many oysters were probably opened while the pearling boats were still at sea.

### The Eve of Islam (ca fourth – seventh centuries AD)

Immediately before the coming of Islam, the eastern coast of Arabia was under the rule of several powers. In the north-east of the peninsula, the authority of the Bani Lakhm Arab kings of al-Hira (now in Iraq) had only very recently faded (ca AD 611). One of the principal tribes in eastern Arabia was 'Abd al-Qays while in the south-east, the tribe of Azd was beginning to dominate much of Oman, challenging the coastal foothold of the forces of the Sasanian Empire in Iran.

The Sasanian Empire and the Byzantine Empire constituted the two great international powers of the fourth to seventh centuries AD and their mutually destructive warfare forms the background to the rise of Islam, the new faith which was soon to overwhelm the Sasanians completely and greatly truncate the Byzantine state. The Sasanians had first established themselves on the eastern Arabian coast in the fourth century AD and during their wars with the Byzantines, they extended their authority as far as Yemen, where they appointed a governor at San<sup>c</sup>â' in *ca* 570 AD. It was only with the coming of Islam in the seventh century AD that Sasanian power was swept from both Oman and Yemen.

Evidence of settlement in south-east Arabia during the emergence of Islam has only recently begun to surface as a result of archaeological fieldwork. Sasanian power in south-east Arabia was based on fortified strongholds such at those at Rustaq and Demetsjerd at Suhar, both in the Sultanate of Oman today (Kervran and Hiebert 1991: pp 337–343; Pirazzoli-t'Serstevens 1988: pp 87–105; Kervran 1996). Excavations at the tell of Suhar indicate a date for the site ranging from the first century BC to the second century AD through to the Sasanian period, and then from the seventh century AD to the thirteenth century AD, followed by a later Islamic occupation. A site associated with the Sasanian period is located at Jazirat al-Ghanam on the Straits of Hormuz, off the great headland of Musandam, now in the northern enclave of the Sultanate of Oman. Here, remains of structures are attributed to the early fourth century AD

on the basis of ceramic evidence (de Cardi 1973: pp 305–310; de Cardi 1975: pp 24–26).

It is interesting to note that 'Hellenistic' sites like al-Dur (Ed-Door) in Umm al-Qaiwain emirate and al-Milayha (Mleiha) in Sharjah emirate seem not to have continued beyond the fourth century AD, and appear to have been abandoned in the centuries that immediately precede the coming of Islam. Their relationship with the Sasanians has yet to be established.

To these fourth–seventh century AD sites must now be added the large tell at Kush in the Shimal area of Ra's al-Khaimah which is currently being excavated by Derek Kennet. He dates its foundation to the Late Sasanian/Early Islamic period. Kush was built as a fortified citadel with massive walls measuring on the east side 2.4 m in width and these still stand to some 2 m at their highest point (Kennet, Farid, Beech and Parker 1999: pp 4–5, pp 20–21). The earliest period of occupation at Kush is dated to the sixth–seventh century AD. Finds include ceramics and glass and a Sasanian seal of carnelian, decorated with a griffin motif. This seal is set in a silver mount and is dated to the third–seventh centuries AD. Ceramics imported from India were found in deposits from the early phases at the site and indicate trade between south-east Arabia and the Indian Ocean. Kush was to continue as a major site in the Islamic period, as the recent excavations have shown.

The presence of Indian pottery at Kush is important, fitting well with evidence from elsewhere of Indian Ocean trade and communications with the Near East in Roman and Sasanian times (Whitehouse and Williamson 1973: pp 29–49; Ball 1986: pp 106–110; Whitehouse 1991: pp 216–218).

Also from Ra's al-Khaimah, there is evidence of settlement in the Sasanian/Early Islamic period at Jazirat al-Hulayla and Khatt. Al-Hulayla is a low sandy island opposite Rams with a protected anchorage provided by the Khawr al-Khuwair (Kennet and King 1994: pp 167–169). Ceramic scatters across the island date settlement at the al-Hulayla site from the third to the eighth centuries AD, especially from the ninth to the eleventh centuries AD and then again from the fourteenth century to late Islamic times.

Khatt lies inland in the foothills on the borders of the emirates of Ra's al-Khaimah and Fujairah. Several archaeological tells of great antiquity lie amidst farmland and groves of trees, in an area with springs. Occupation of this fertile site goes back to the Late Stone Age, while ceramics indicating settlement in the first five centuries of the first millennium AD and in the Late Sasanian/Early Islamic period have also been retrieved (de Cardi, Kennet and Stocks 1994: pp 54–58).

On the eastern side of the Jebel Hajar, but of far less certain dating, is a site in Fujairah emirate, a well-constructed *falaj* in the Wadi Safad north of Fujairah city. It is locally said to be Sasanian, but although it is probably ancient, its origin is unproven (King and Maren 1999: pp 10–18).

Extensive modern development means that it is probably no longer possible to assess the archaeology of the towns of Umm al-Qaiwain, Ajman, Sharjah and Dubai in the sixth/seventh century AD and in the Islamic period generally. However, just to the west of Dubai, the important site of al-Jumayra goes back to the Sasanian and the Umayyad periods according to its first excavator, Baramki, although recent excavations by Dubai Museum suggest that the chronology will have to be revised in the light of new work at the site by Dr Husayn Qandil (Baramki 1975; Hellyer 1998: p 130). By the rise of Islam, sites like al-Dur (Ed-Door) on the Umm al-Qaiwain coast and al-Muwailah and al-Milayha (Mleiha)<sup>3</sup> had long since declined but where their successors as settlements are located, if anywhere, is unclear.

A very curious discovery that relates to the transition between the pre-Islamic and the Islamic period is a camel sacrifice and burial at Jebel al-Buhais near al-Madam in Sharjah. The excavation involved a male skeleton, accompanied by iron arrowheads and a camel. It is dated by C14 analysis of the contents of the camel's stomach to 640-680 AD with a 2σ deviation. The arrowheads suggest that the individual was a warrior (Uerpmann and Uerpmann 1999: p 456). The burial had taken place in a reused Bronze Age tomb: such reuse practices have been encountered at several graves in the Oman peninsula including at a grave at Jebel 'Imâla (Emalah) near to Jebel al-Buhais, at a date sometime between the Hellenistic and the Sasanian period (Benton 1994; pp. 12-13). However, the Jebel al-Buhais burial is unusual inasmuch as it is both so late and it is a precisely dated camel burial belonging to the period when the region was apparently under Al Julanda and/or Umayyad rule. The Jebel al-Buhais human and camel burial appears to be a continuation of earlier burial practices and camel sacrifice in a period of transition as the country gradually had its social practices transformed and the impact of Islam took grip. In the pre-Islamic period, camel sacrifice and burial rites have been well documented in recent years at al-Milayha, dated to ca 300 BC to ca 200 AD (M. Mashkour 1997: pp. 725-736; Uerpmann and Uerpmann 1999: pp. 455-456; Uerpmann 1999: pp. 102-118) and in Yemen (B. Vogt 1994: pp. 279–290). To these should be added an extremely interesting camel sacrifice found at al-Rabadha on the Darb Zubayda, to the east of al-Madîna in central Saudi Arabia, excavated in the mid-1980s but still unpublished. It involved a baby camel sacrificed and laid in the foundations of a doorway covered by the threshold stone of a doorway and in a firmly ninth or tenth century AD Abbasid context. Taken with the 'Umayyad-period' camel sacrifice at Jebel al-Buhais in Sharjah, these two camel sacrifices show the long persistence of camel-related sacrifice rituals across a great expanse of the Arabian landscape into a late period.

As in much earlier times, the plentiful water resources of Al Ain and Al Buraimi, the Tuwwam of the Arab geographers and historians, must have made the great inland oasis an important place in the Islamic period. Its numerous *falaj* systems show the longevity and the extent of organized settlement and cultivation there. The oasis is mentioned in the context of events of the Early Islamic period, but published archaeological accounts for the area on the eve of Islam or in the Islamic period generally are rare. A French team working in 1976 at Al Ain when the oasis was far less disturbed by modern development seems only to have found later Islamic material, dated to post-sixteenth century AD (Cleuziou 1976–1977: p 10).

A number of sites dating from the immediately pre-Islamic centuries have been recognized through archaeological surveys of the Abu Dhabi coastal region since 1992 (King, Dunlop, Elders, Garfi, Stephenson and Tonghini 1995: pp 63–74; King and Tonghini 1999: pp 117–142; Hellyer and King 1999: pp 119–123). Until recently, it had been assumed that the first settlement at the site of Abu Dhabi city was to be dated to 1761, but sherds retrieved from a now lost archaeological site at al-Batîn (al-Bateen) boatyard in Abu Dhabi city have been recognized as belonging to *ca* third to fourth century AD, pushing back the history of settlement on the island on which the capital city of the UAE stands by a thousand years. Ceramics of a similar date to those from al-Batîn have also been found at Ra's Bilyaryar, a headland on the mainland north-east of Abu Dhabi city.



Courtyard house north of the church at al-Khawr, Sir Bani Yas, Abu Dhabi emirate (1995).

Settlement of the same *ca* third to fourth century AD period is also proven on the offshore island of Yasat al-'Ulya', where there is also a small representation of Early Islamic ceramics. A significant site of similar date was found on the neighbouring island of Yasat al-Sufla', with remains of buildings indicated by low mounds that represent the traces of collapsed architecture. Sites of the same date are located on the island of Ufzaiyya and on the al-Sila' mainland peninsula opposite. Yet another site of the same period and of some size was found on the island of Ghagha', one of a small group of islands in the westernmost waters of the UAE, close to the Saudi Arabia sea-frontier. Later Islamic structures were built over the site, although much remained to indicate the extent of the earlier occupation and its importance. Further out in the Gulf, ceramics of the centuries immediately preceding Islam have also been found on the island of al-Qarnayn (Qarnein), at Marawah, Dalma and at Ra's Ghumays on the Sila' peninsula.

A survey by a French team in 1979 on the island of Dalma, near the town of the same name, noted a major building which they attributed to a Sasanian/Early Islamic date, although it has since vanished (Cleuziou 1976–1977: pp 10–15). Ceramics of *ca* sixth century AD date were recovered from a site on the outskirts of Dalma in 1992. Given the island's plentiful water supplies in the past, it seems very likely that it was a place of regional importance before the rise of Islam and also in the Islamic period itself, judging from Cleuziou's observations and our own.

One of the most remarkable discoveries on the Abu Dhabi islands for this period before the coming of Islam has been made at al-Khawr (al-Khor) on the island of Sir Bani Yas, off the coast at Jebel Dhanna. The landscape of the island has been changed by landfilling and extensive tree planting in recent years, but at al-Khawr, on the eastern side of the island and

in an undisturbed area, a group of sites was identified in 1992. These include several courtyard houses and a large occupation mound, now recognized as a Nestorian monastery and church (King 1997: pp 221–235). Carbon 14 dating of burnt material retrieved from the monastery indicates occupation to the mid-seventh century AD which matches the sixth to seventh century AD date of the pottery excavated at al-Khawr.

The structures so far exposed at al-Khawr were reduced to wall foundations, but they were all remarkably well preserved, with a fine plaster finish on the internal wall surfaces and floors. The monastery consists of a rectangular enclosure with chambers surrounding a central courtyard and a church that stands in its centre at the highest point. In the course of the excavation numerous pieces of fine decorative plaster were recovered, with relief motifs of grape leaves, grape clusters and Christian crosses of the same character as the decoration of other Nestorian sites of similar date elsewhere in the Gulf, at Failaka' (Kuwait), al-Jubayl (Saudi Arabia), at the Bani Lakhm capital of al-Hira (Iraq), and at al-Kharg island (in Iran)<sup>4</sup>.

The al-Khawr church is on an east-west axis, measuring at least 14 m in length and it has three aisles. When abandoned, it eventually collapsed with the east wall falling on to its own decorative plaster, thus protecting and preserving a large amount of the decoration that once covered the building on the exterior and possibly on the interior. The original design seems to have consisted of string courses decorated with grape clusters, vine leaves and crosses that ran as bands across the building.

During excavations at the western end of the island of Marawah in 2000 season, yet another church was identified. Although only the apse at the east end of the building was exposed, its dimensions and the quality of its undecorated internal plaster facing tied it stylistically to the al-Khawr church at Sir Bani Yas with which, at present, it is assumed to be comparable and contemporaneous. Near to the newly found Marawah church is a complex water catchment system that utilizes the natural configuration of the bedrock and man-made deflectors to guide rainwater run-off to make it pool. In the arid environment of the Abu Dhabi islands this skill in water management seems to have persisted from the Late Stone Age down to the Late Islamic period. While we hesitate to date the origins of this water deflector system on Marawah at present, it is tempting to associate its use with the nearby church. Certainly, if the water gathering system is as old as the sixth to seventh century AD, it is hard to imagine that those who used the church did not exploit this source of water. Other evidence, based on provisional C14 dating from two lime kilns from the west end of the island point to use in ca 726 and ca 826 respectively. It is thus increasingly apparent that there is a significant level of activity on western Marawah as well as at al-Khawr at Sir Bani Yas and at Dalma in the centuries immediately before Islam and in the Early Islamic period.

The presence of churches in eastern Arabia conforms to the Arabic textual accounts of Christianity in the east of the peninsula at the time of the coming of Islam. The Bani Lakhm Arab kings of al-Hira in south-west Iraq were Nestorian Christians and their role was that of a buffer state for the Sasanians in their conflicts with the Byzantines and their allies in the deserts of Arabia and Syria. Other Arab tribes were also Christian, including Bani Taghlib in north-east Arabia and the north Arabian and Syrian tribes of Ghassan, Kalb and Judham, while Christianity was established in Yemen before Islam at Sancâ', Najran and at Zafar as well as in the broader context of the Indian Ocean (Fiaccadori 1992).

The ecclesiastical arrangements of the Nestorian church in eastern Arabia are reasonably well understood. The Nestorian province of Bet Qatraye included Bahrain and the coast opposite to it, the al-Hasa' oasis and Qatar, and it was divided into a number of bishoprics. Further to the east was Bet Mazuniye, which encompassed the modern Sultanate of Oman and territory now in the UAE. The centre of Bet Mazuniye was Suhar on the Batinah and the names of several of Bet Mazuniye's bishops are known. As we have seen, for the Arab geographers, all of south-east Arabia, including the territory of the UAE, was 'Oman', and the Syriac term 'Mazuniye's signifies this same broad geographical territory. It seems reasonable to assign much of the UAE to the territory of Bet Mazuniye rather than to Bet Qatraye. However, the location of the boundary between Bet Qatraye and Bet Mazuniye is unclear and Sir Bani Yas with its monastery at al-Khawr and that at Marawah are very close to wherever this ecclesiastical boundary must have been. It is therefore difficult at present to be sure to which ecclesiastical division the al-Khawr monastery belonged.

The Syriac sources speak of the foundation of monasteries in the Gulf as early as the fourth century AD and the presence of a church or monastery on at least one Gulf island is indicated. In 676 AD, bishops of the Nestorian church attended a council at Darin on the island of Tarut, off the Saudi Arabian coast, after visiting unspecified islands, presumably to meet other clergy residing there. This sounds very much like a reference to Sir Bani Yas, Failaka' or Kharg. It is to this world of pre-Islamic Nestorian Christianity on the coasts and islands of the Gulf and with contacts out into the Indian Ocean that the Sir Bani Yas monastery belongs.

Christianity persisted in eastern Arabia for several centuries after the coming of Islam but eventually it seems to have faded, supplanted by the dominant new faith. It appears to have simply eroded away, perhaps because of conversion to Islam, and churches like that on Sir Bani Yas or Marawah would have been abandoned to deteriorate until they finally collapsed.

Little is known of the pre-Islamic history of the south-east Arabian tribes to whom many of these post-third century AD archaeological sites must relate. The Azd, led by their Al Julanda princes, had originated in Yemen and they seem to have been the principal tribal group in Oman but there were non-Azd tribes as well, established in the present territory of the UAE and the Sultanate of Oman; the descendants of the non-Azd tribes were to be known as Nizar in later times.

The al-cAtik branch of Azd was found at Dibba on the Batinah coast of the UAE, while another branch, Huddan, resided along the modern UAE coast between Ra's Musandam and Qatar: yet another, Humaym, was at Nizwa. Elements of the Azd were also located on the islands of the Gulf, both on the Arabian and on the Iranian side, before the rise of Islam.

Of the little that is known of the pre-Islamic Azd, it is clear that they were seamen, merchants and fishermen. Hisham ibn al-Kalbi says that, along with the northern Arabian tribes of Tayyi' and al-Quda<sup>c</sup>a, the Azd worshipped an idol called Bajir or Bajar before Islam (Ibn al-Kalbi 1952: p 54), although this deity may have belonged to a branch of Azd who lived somewhere in the north of the peninsula rather than in the south-east (Ibn al-Kalbi 1952: p 54). However, the excavations at Sir Bani Yas and elsewhere in eastern Arabia add to the growing body of evidence of the presence of Christianity in the pre-Islamic Gulf, suggesting a religious picture more complex than one confined to paganism alone. A local tradition, current in the UAE, holds that part of the Manasir were Christian before the coming of Islam. The archaeological evidence from pre-Islamic Nestorian church sites makes such a tradition seem plausible.

## The Advent of Islam (622–661 AD)

The sources for the history of the UAE in the Early Islamic period are either the Arabic historians and geographers who wrote under the Abbasid Caliphate or the very much later compilations based on early but lost works. For the early years of Islam, such sources as we have are occasionally informative, dealing with certain incidents in some detail. Such episodes as are recorded touch on the lifetime of the Prophet Muhammad, the Rightly Guided Caliphs and their Umayyad and Abbasid successors. The events they describe either relate to the conversion of the country to Islam or to military matters. Yet, although the literary sources record certain episodes, silence prevails for much of the Early Islamic period and it is only archaeological research in recent years that has broadened the scope of our understanding of the history of the UAE in the Islamic period as a whole.

Before the arrival of Islam to south-eastern Arabia, the Sasanians in Oman were already in conflict with the Azd tribe and their Al Julanda kings. The balance in this conflict swung in favour of the local Arabs when the Al Julanda were joined by Muslim forces sent by the Prophet Muhammad from al-Madîna, and in the resulting military campaigns the Sasanian citadels were overwhelmed and their forces expelled by 630 AD. The Sasanians had suffered a catastrophic defeat in Iraq at the hands of the Byzantine emperor Heraclius over the previous two years and the success of the Muslims and the Al Julanda in south-eastern Arabia presaged the subsequent Muslim victories over the Sasanians that were to lead to their total defeat and the disintegration of their empire in Iran 20 years later.

At the time of the coming of Islam, the leadership of the Arabs of south-east Arabia was a matter of dispute. The Al Julanda ruling house of the tribe of Azd was led by two brothers, Jayfar and 'Abd (or 'Abbad), and they were centred on the Batina coast at Suhar. They were in conflict with the al-cAtik branch of the Azd who lived mainly in the interior of the country. The latter were led by Laqit b. Malik al-'Atiki, who seems to have lived at Dibba. According to Ibn Habib, however, Dibba was also sometimes under the control of the Al Julanda, for on the last day of the month of Rajab, they would administer an annual fair there, one of the great markets of pre-Islamic Arabia (Potts 1992: p 339). Ibn Habib records that Dibba was one of the two ports used by the Arabs of south-east Arabia, Suhar being the other. Merchants would came from Sind, India and China for this fair. If not an exaggeration, this provides further evidence of the breadth of Indian Ocean trade before Islam, although it seems unlikely that merchants from China arrived at this early date in Arabia and the most authoritative discussion of the pre-Islamic China trade, by G.F. Hourani, argues decisively against this possibility (Hourani 1995: pp 46–50). Although Dibba is mentioned in the Arabic sources as an important place, archaeological reports do not offer much evidence to indicate its character on the eve of Islam or in the Early Islamic period (de Cardi 1971: p 257). However, a graveyard associated with a major battle in the Early Islamic Ridda wars of the Caliphate of Abu Bakr is located close to Dibba (Hellyer 1990: pp 48–49; Hellyer 1998: p 127).

The territory that now constitutes the UAE emerges into view in the context of the Prophet Muhammad's invitation to the people of south-east Arabia to convert to the new faith of Islam. Knowledge of the Prophet's message seems to have seeped into south-east Arabia, as well as to al-Hasa' and Bahrain in eastern Arabia, before large-scale conversion and acquiescence to

the new faith occurred. The area also figures prominently in the events of the *Ridda* (Apostasy) wars of 632–634 AD.

As we have seen, about the time that the first contacts were made between south-east Arabia and the Islamic community at al-Madîna, the Sasanian state was engaged in warfare with the Byzantines which was to lead to the decline of both empires as international powers. In this same period, the Azd appear to have been bringing pressure on the Sasanian outposts along the coast. In 630 AD, the Prophet Muhammad sent as a missionary to the Azd one of his Companions, Abu Zayd al-Ansari, from the Madînan tribe of Khazraj, who was known for gathering pages of the Qur'an during the Prophet's lifetime. The Prophet then sent a newly converted member of Quraysh, 'Amr b. al-'As, the future founder of al-Fustât in Egypt. According to a late source, there had been contacts with Oman even earlier, with Mazin b. Ghadubah being the first individual from south-east Arabia to accept Islam when he went to the Prophet at al-Madîna and converted there (Sirhan 1984: p 9).

Subsequently, 'Amr b. al-'As arrived bearing a letter from the Prophet, passing through Tuwwam (Al Ain/Al Buraimi) before continuing to the Batina coast to present the letter to the Sasanian governor who rejected the Prophet's message. 'Amr, now joined with Abu Zayd, then went to the Al Julanda kings of the Azd, either at Demetsjerd, the citadel built by the Sasanians at Suhar, or at Nizwa, and presented the Prophet's letter to 'Abd. 'Abd recognized the importance of the matter and passed the letter to his brother Jayfar. They agreed on its significance and said that they needed to consider the matter at length. A council of the Azd was called at which it was decided that they should convert to Islam. The Prophet's message was accepted by all their kin, who agreed to pay the Qur'anic *zakat* tax. Jayfar then invited all the people in Oman to submit to Islam. Among others places, he sent messages to Dibba, and to the furthest flung parts of Oman to the north, by which the territory of the UAE is probably intended (Sirhan 1984: pp 9–10).

The conversion of the Al Julanda and the Azd to Islam now became tied to the existing hostility between the Azd and the Sasanian government. The Sasanians maintained their rejection of Islam and, led by the Al Julanda princes, the Azd attacked them, killing Maskan, the Sasanian administrator of Oman, and besieging the rest of their forces in the citadel of Damsetjerd where they finally surrendered in 630 AD. The defeated Sasanians agreed to evacuate the country and to relinquish all their gold, silver and property.

With the Sasanians expelled, 'Amr continued to administer Oman until the Prophet's death in 632 AD and the succession of Abu Bakr, the first Caliph. 'Abd, the Julanda prince, went to al-Madîna where he was received with pleasure by the newly appointed Caliph who praised the conversion of the people and wrote to them to compliment them. The point at which this happened is unclear, however, for at the death of the Prophet, the great uprising known as the *Ridda* (or Apostasy) wars broke out against Islamic rule in much of Arabia. Central Arabia followed a false prophet, Musaylima, while in the east and south, rebellions took place all the way from Bahrain to Oman, Mahra and Yemen. The famous Muslim general, Khalid b. al-Walid, was despatched to al-Yamama in central Arabia by the Caliph to put down Musaylima and while Khalid suppressed this threat, other commanders were deployed in eastern Arabia. Al-'Ala' b. al-Hadrami was sent to reduce the apostates of Bahrain (the eastern coast of Arabia and the island of the same name) while Hudhayfa b. Mihsan al-Ghalfani, of the Yemeni Himyarites, and Arfaja al-Bariqi, an Azdi, were sent to suppress apostates in south-east and southern Arabia.

Abu Bakr ordered Hudhayfa to advance with all speed on Oman, where he was to be supported by Arfaja. In Oman, they were to support the Muslims, reinforcing the Al Julanda princes, 'Abd and Jayfar, against their opponents, the dissident Azd elements. The expedition was then to continue into Mahra on the southern coast, where Arfaja would command. They were reinforced by 'Ikrima b. Abi Jahl, who had been engaged with Khalid b. al-Walid in the campaigns in central Arabia against Musaylima. After suppressing the apostates in Oman and Mahra, the Caliph ordered that the Muslim forces should continue through the Hadramawt to Yemen, to join up there with al-Muhajir b. Abi Umayya and his Muslim forces already operating in Yemen.

The Caliph's plan of campaign responded to the nature of the topography of the south of the Arabian Peninsula, and the natural obstacle of the immense Empty Quarter sand sea. This forced the Muslim army to march from al-Madîna through central Arabia in a great circuit along the north side of the sands and then to pass through territory that today lies in the UAE, to reach the Oman Peninsula. They then turned south-west and west towards southern Arabia, to Mahra', Dhufar and to Yemen. Although there is evidence in later times of armies that must have crossed the edge of the sands in the UAE to reach Julfar, the Batina and the interior of Oman, only this Early Islamic army from al-Madîna seems ever to have circled the whole of the Empty Quarter.

Any large force moving through the UAE from central or northern Arabia by land must march between the deep sands of the eastern Empty Quarter and the sabkha salt-flats of the coast, which are especially difficult when the weather is wet in winter and spring. For travellers, access to wells in the Baynuna, Liwa or Tuwwam (Al Ain/Al Buraimi) areas is vital until the more plentiful water sources of the Jebel Hajar and Jebel Akhdar are reached. The difficulty of finding wells when traversing this harsh desert area in south-east Saudi Arabia and in western Abu Dhabi emirate is illustrated graphically by Wilfred Thesiger's account of his journey from Jabrin to Dhibi and the Liwa in 1948 (Thesiger 1971: pp 233-244). It was awareness of the nature of the desert landscape and the location of the limited water resources that dictated the Caliph Abu Bakr's plan of campaign and the route of his forces around the south-east of the Arabian Peninsula to Yemen. Like any traveller in the pre-modern period, dependent on wells, and travelling by camel, Abu Bakr, as a native of the distant Hijaz, or his commanders, must have sought the advice of local people from the tribes of south-east Arabia who would have had the same detailed knowledge of the Empty Quarter that their descendants among the tribes of the area still retain today. It was as part of this process that Arfaja al-Bariqi, as an Azdi, and Hudhayfa b. Mihsan al-Ghalfani, as a Himyari of Yemen, were selected to lead the expedition, not only because of the connections that their own tribal affiliations gave them politically in Oman and southern Arabia, but also because of the tribal contacts and access to guides that they would have had in the areas through which the Madinan Islamic force passed in its great march around the Empty Quarter.

In Oman, the leader of the apostasy was Laqit b. Malik al-Azdi, known as 'the one with the crown' (Dhu'l-Taj), a figure of some importance in pre-Islamic times as a rival of the Al Julanda rulers of the country (al-Tabari, ed. Donner: pp 151–155; al-Baladhuri 1916: p 117). With the death of the Prophet Muhammad, Laqit rebelled and worsted the forces of the Julanda leaders and the Muslims in Oman. Al-Tabari says that, as a result of Laqit's initial successes, 'Abd and Jayfar were forced to seek refuge in the mountains and the islands off the coast, while Laqit dominated the rest of the country. The mountains must mean Jebel Hajar and

Jebel Akhdar that form the great spine running from the Sultanate of Oman through the northern emirates of the UAE up to the Straits of Hormuz at Musandam. The islands mentioned are presumably those off the shore of the UAE and Oman and where Azd are known to have been present before Islam. In these more remote areas, the Al Julanda leadership awaited reinforcements from al-Madîna.

The combined force of the Madinan army led by Hudhayfa and supported by Arfaja and 'Ikrima reached Riyam or Tuwwam, places which are recognized by Miles as being identical with Al Ain/Buraimi (Miles 1966: p 36). Using Al Ain as a base, the Madînan forces made contact with 'Abd and Jayfar who then met them at Suhar on the coast of the Batina in Oman. The Muslim forces, including those from south-east Arabia and from al-Madîna, now set about fragmenting the apostates, writing to the chiefs of tribes that had supported Laqit b. Malik. The first to be approached was the leader of the Banu Judayd, who decided to abandon him. When they felt that the apostates were weakened, the Muslim army advanced to meet Laqit at his base at Dibba which is described by al-Tabari as a great market and *misr* or town. As we have seen, Ibn Habib confirms the extent of Dibba's trading network. Dibba was sometimes the capital of Oman and is said to have been garrisoned by the Sasanians before Islam (Donner in al-Tabari 1993: p 153, n 964).

A battle broke out between the two sides at Dibba, somewhere on the plain just inland from the present coastal town to judge by the location of the graves where those lost in the battle are buried. Laqit strengthened his followers' intention to resist by placing their women and children behind his position so that their presence would encourage his men to fight to protect their families. Initially, Laqit was dominant, but the Muslims, reinforced by other tribes (including members of 'Abd al-Qays and elements from Bani Najiya of the Quda'a, who had settled in Oman before Islam), finally prevailed and Laqit's followers fled, leaving many dead. According to al-Tabari, 10,000 died although numbers are often exaggerated in the Early Islamic texts, and may merely indicate 'a large number'.

The victorious Muslims proceeded to loot the market at Dibba. The captives seized were sent to Abu Bakr with one fifth of the booty, which included the enemy's flocks. Hudhayfa remained in south-east Arabia where Abu Bakr appointed him governor, an office that he held after the death of the Caliph in 634. He calmed the situation with the tribes, and all of the Azd returned to Islam while the rest of the Muslim forces from al-Madîna and from the people of Oman continued to pursue the apostates into Mahra in southern Arabia before marching to Shihr in Yemen. Al-Tabari describes this army as including people from the seacoast and from the islands, as well as from the incense country and from Najd (al-Tabari 1881–5: pp 156–157). One must assume that the Gulf islands are indicated in this reference.

#### The Invasion of Iran

In *ca* 637 AD, according to al-Tabari, the governor of the province of al-Bahrayn, <sup>c</sup>Uthman b. Abi al-<sup>c</sup>As, was ordered by <sup>c</sup>Umar b. al-Khattab, the second Caliph, to attempt to invade the coast of Sasanian Iran. The Muslim forces were 3000 strong and consisted of men from Azd, <sup>c</sup>Abd al-Qays, Najiya and Rasib. They set out by sea from Julfar and sailed across the Gulf to the island of Ibn Kawan (Qays) where they encountered the Sasanian governor of the

island whom they defeated (al-Tabari 1881–5: p 2698). They then continued to invade the coast of Fars and the Iranian interior. It is not clear exactly what Julfar was at this stage but it is evident enough that it had a port. Given that the archaeological site now known as Julfar, lying just north of Ra's al-Khaimah city, is dated post-fourteenth century AD, Early Islamic Julfar and its harbour must have been elsewhere. It is possible that the name Julfar moved around the coastal plain near Ra's al-Khaimah over time and its harbour moved as anchorages changed when its creeks silted and offshore sand-bars built up, making navigation difficult. A major result of geomorphological study at post-fourteenth-century Julfar has been to demonstrate the instability of the shore and the hinterland, and the rapid change of the coast in very recent centuries. These processes must have had their effect on settlement in very much earlier times.

## The Umayyad and Abbasid Periods (661–1258 AD)

With the death of the third Caliph <sup>c</sup>Uthman b. <sup>c</sup>Affan in 656 AD, the Muslim community fell into contention between the fourth Caliph, <sup>c</sup>Ali b. Abi Talib, and the Umayyad governor of Syria, Mu<sup>c</sup>awiya b. Abi Sufyan. The Umayyads came to power as Caliphs themselves in 661 AD on the assassination of the Caliph <sup>c</sup>Ali, but the people of Oman remained aloof, ruled by their Al Julanda princes. It was not until some time towards 705 AD that al-Hajjaj b. Yusuf al-Thaqifi, the powerful governor of the eastern Islamic world under the Umayyad Caliph <sup>c</sup>Abd al-Malik, launched an attack on south-east Arabia to bring it under Umayyad control.

To end south-east Arabia's autonomy, the Umayyads sent a fleet and army that marched by land to Oman (Sirhan 1984: pp 10–11; Salal b. Razik 1871: pp 2–5). The fleet landed at Julfar which served as a naval base for the expedition for the course of the campaign. The first Umayyad forces were defeated by the Azd and the Umayyad general, Qasim b. Shi<sup>c</sup>wa, was killed. Faced with this reverse, al-Hajjaj despatched another army, 40,000 strong, to Oman under Qasim's brother, Muja<sup>c</sup>a. This force was divided so that the horses and camels travelled by land while the army went with a fleet by sea. The land force must have crossed the UAE to reach the rendezvous but there is no indication as to the route they followed. Given the dangers of the shallow coastal waters and the difficulties of the *sabkha*, it is impossible that the army and the fleet could have maintained visual contact with each other as they travelled through what is now the UAE.

The Umayyad land force was defeated by the Azd at a water source some days from a place called Bushir or Balqa°a which has been identified by Badger with al-Falj (Falaj) and which is mentioned by al-Idrisi (al-Idrisi 1972: p 153). He places it near to Julfar (Badger in Salal b. Raziq 1871: p 3, n 2). The Umayyad land force fled, but the fleet landed at a place called al-Bunana, which could be synonymous with Baynuna in Abu Dhabi emirate. However, Baynuna as understood today is a district with wells that is far inland, and if the term was used for a larger area in the eighth century AD, it would have had to include the coast for this identification with al-Bunana to be meaningful. Yet even if this is true, it would have been of little advantage for the Umayyad fleet to have landed as far west of Julfar as the coast of the Western Region of Abu Dhabi and the areas of the coast north of modern Baynuna, since they are not provided with good anchorages for a large fleet. It seems, therefore, that another source

(Salil b. Raziq 1871: p 4) is more accurate, recording that the Umayyad fleet's landing place was al-Yunaniya of Julfar. This seems to mean that al-Yunaniya was a part of the broad district called Julfar, and thus should be located somewhere in the present emirate of Ra's al-Khaimah, in the north of the UAE.

When the Umayyad fleet reached Julfar, an individual from Tuwwam came to inform them that a dispute had arisen among the Azd after their defeat of the Umayyad land army. The Umayyad sea-borne forces that assembled at Julfar under Mujaca were superior to the Azdi force that remained in the area under Sacid b. Abbad, the brother of the Al Julanda leader, Sulayman. Faced with the superior Umayyad forces, Sacid retreated by night into the mountains with the Umayyads in pursuit.

Meanwhile, the Umayyad fleet of 300 vessels sailed through the Straits of Hormuz to anchor at Muscat harbour. The Julanda leader, Sulayman, managed to burn more than 50 of the Umayyad boats, while the rest fled. Sulayman then attacked and put to flight the main Umayyad army under Mujaca. Mujaca retreated to his headquarters at Julfar with the remaining boats and wrote to al-Hajjaj in Iraq, requesting reinforcements. In response, al-Hajjaj sent Mujaca 5000 cavalry from Syria who marched by land to Julfar. Thus strengthened, the Umayyads overcame the resistance of the Julanda and the Azd and defeated them. In the aftermath of the victory, the Umayyads appointed Sayf b. al-Hani al-Hamdani as governor of Oman. The Julanda leadership fled to the land of the Zanj – east Africa – and only re-emerged as a power in southeast Arabia later in the Umayyad period. The south-east Arabian sea trade that must have existed in pre-Islamic times with other Indian Ocean littoral countries probably prompted the destination of the Al Julanda flight, an episode which presages subsequent south-east Arabian connections with east Africa in the Islamic period.

When the Abbasid Caliphs seized power from the Umayyads in 750 AD, they soon turned their attention to Oman to put down a revival of the Julanda and Azdi independence which appears to have re-emerged by the later Umayyad period. This seems to have affected not only the mainland of south-east Arabia but the islands of the Gulf as well. The first Abbasid Caliph, al-Saffah, sent an army to Oman led by Shiban b. 'Abd al-'Aziz al-Yashkuri to ensure the allegiance of Julanda b. Mas'ud, the Azdi leader. The Abbasid fleet sailed from al-Basra to Ibn Kawan island on the eastern side of the Gulf and then on to Oman, although the harbour that they used is not mentioned. However, Shiban was killed in the fighting that ensued with the Azd. Even before Shiban's death, the Caliph had decided to send a new commander, Khazim b. Khuzayma, to help confront the Azd.

Khazim arrived after Shiban's death. He sought the allegiance of the people of the country to the Abbasids, but they refused to support him. The Abbasid forces killed the leaders of Julanda and 10,000 of their supporters, according to al-Tabari. This final battle took place at Julfar.

According to al-Tabari, during the fighting, Khizam's Abbasid forces burnt the houses of the Julanda followers, using naphtha to hasten the flames. When they saw their houses burning, the Al Julanda army fled from their prepared positions to protect their families and this allowed the Abbasid army to fall upon them and slaughter them. There is a long tradition of using wooden and reed housing in the Gulf and around the Arabian coast. As early as the Late Stone Age we find post-holes at an Ubaid period site at Dalma indicating the presence of huts and the archaeological and literary evidence shows that similar huts were still in use as late as the

nineteenth and early twentieth centuries AD. These are usually called *barasti* by Europeans but are more correctly known as *arish*. The episode of the burnt houses of the Julanda army suggests that a substantial number of the houses of Julfar were *arish* in the early Abbasid period. This is the first textual information describing structures at Julfar that gives some impression of the common housing of the UAE coast.

A far more destructive Abbasid intervention occurred when the Caliph al-Mu<sup>c</sup>tadid came to the throne in 892 AD. As the Abbasid governor of Iraq and the Gulf, Muhammad b. Nur approached the Caliph with a plan to support anti-Ibadhi forces (or anti-Julanda forces) in south-east Arabia, in order to obliterate the Ibadhis and their Julanda leadership, bringing south-east Arabia back under the direct rule of the Caliphate (Miles 1966: pp 77–84; Salil b. Razik 1871: pp 22–25).

A large Abbasid force set out, including members of the north Arabian tribe of al-Tayyi'. The force consisted of 25,000 men and included 3500 armoured cavalry. Stores and equipment were sent by a fleet that was to land at Julfar, while the rest of the army under Muhammad b. Nur marched through eastern Arabia to secure Julfar by way of the interior. They would have followed a route through modern Abu Dhabi and Dubai to reach the northern emirates, just as the forces of the Caliph Abu Bakr and of the Umayyads had done in earlier times. Having established his naval base at Julfar to ensure communications by sea with al-Basra at the head of the Gulf, Muhammad b. Nur marched inland to Tuwwam, before advancing on Nizwa. The strength of his army was such that the local people were overwhelmed. Nizwa, the main town of Oman and of the Azd, was seized by Muhammad b. Nur and the local forces were routed. Some fled to Shiraz and al-Basra, while others went to Hormuz across the Gulf. In the brief uprising which followed, Muhammad b. Nur was initially driven back and defeated at Dibba but he recovered to unleash his army on the area. In the ensuing campaign of terror and destruction, much of south-east Arabia was wrecked. Muhammad b. Nur's army set about killing and torturing the people and breaking up the infrastructure by filling the falaj irrigation system, on which the agricultural economy of so much of south-east Arabia depended. The Abbasids also burnt books, which is probably the cause of the paucity of early sources on south-east Arabia's Islamic history.

While Muhammad b. Nur was ravaging Oman and laying the country low for decades to follow, an increasing level of disruption in many other parts of the Abbasid Caliphate was taking place as Baghdad began to lose control of its more outlying provinces. By the end of the ninth century AD, the power of the Abbasids was greatly diminished, with the Caliphs controlled by their Turkish military commanders and many provinces lost to the *de facto* power of their local governors. The Abbasids also lost parts of the Gulf during the great Zanj rebellion in southern Iraq, a revolt which though once represented as a slave uprising has also been described as a conflict over the control of Gulf trade. The Zanj sacked al-Basra in 871 AD and continued to represent a threat to the Abbasids. Not long after, the massively disruptive Qaramita state, based in al-Hasa' and Bahrain, arose in eastern and northern Arabia. The Qaramita sectarians raided over the whole of Arabia, destroying the security of the pilgrim road from Iraq to the Hijaz, and raiding Syria. They sacked al-Basra in 923 AD and made forays into Oman and Yemen. In 930 AD, with great sacrilege, they attacked Mecca during the pilgrimage season and seized the Black Stone from the Ka<sup>c</sup>ba, bearing it off to eastern Arabia where it remained until 951 AD when the Qaramita returned it.

On the opposite side of the Gulf, events in the course of the tenth century AD were also grave for the great regional trading centre of Siraf on the coast of Iran. Siraf had flourished since the Sasanian period but it suffered an earthquake in 977 AD, after which it declined. As the town's commercial dominance faded and other centres supplanted it, the Siraf merchants scattered as far as the Red Sea and east Africa. Beneficiaries of the decline of Siraf seem to have included Ibn Kawan (*i.e.*, the island of Qays on the Iranian side of the Gulf), and Suhar in Oman. Suhar's heyday as a trading and agricultural centre appears to have occurred in the tenth century AD. The occupation of Kush and al-Hulayla in Ra's al-Khaimah in the ninth to eleventh centuries and thereafter may suggest that they too were a part of the efflorescence of south-east Arabia in this period.

After the withdrawal of the Qaramita from south-east Arabia in 965 AD, the Buwayhid *Amir* of Kirman, Mu<sup>c</sup>izz al-Dawla, invaded Oman. He joined his son, <sup>c</sup>Adud al-Dawla, at Siraf before landing their combined force with a fleet at Julfar to bring the country under their control. When the Buwayhid position was subsequently threatened, they sent forces again in 972 AD and <sup>c</sup>Adud al-Dawla took south-east Arabia under his direct rule. The Buwayhids remained a power in Arabia until some time before 1053 AD when their authority waned. In 1055 AD, the Buwayhid state in Iraq and Iran was overthrown by the Seljuk Turkish Sultans.

The principal line of this Turkish regime, the Great Seljuk Sultans based at Isfahan, reinstated the power of the Abbasid Caliphate in Baghdad. They established the foundations of a Sunni Islamic revival across much of the Islamic world in their westward advance from Central Asia as far as Syria and Anatolia. In south-east Arabia, their presence is scantily recorded, but Ibn al-Mujawir mentions a Seljuk prince of Kirman who also held Oman and this connection may have sustained itself until the fall of the Seljuk dynasty in Iran in 1186 AD.

# The Early Islamic Archaeology of the UAE

Until recently, there has been a great lack of archaeological information concerning the seventh to thirteenth century AD in the UAE but there is now a growing body of evidence from sites associated with the Umayyad and the Abbasid periods. This is especially the case in the northern emirates of the UAE.

One of the most important of these sites is Kush in Ra's al-Khaimah whose sixth/seventh century AD citadel, already discussed above, seems to have been abandoned in the Early Islamic period. An Abbasid period re-occupation followed in the ninth to tenth centuries AD, peaking between the eleventh century and the mid-fourteenth century AD. Among imported finds uncovered during the 1998 excavations at Kush were two eighth/ ninth century AD Dusun potsherds from China, while Indian pottery, as noted above, was found from the earliest phases at the site. These reflect the Arabian sea-trade with the Far East via the Indian Ocean known from literary sources to have flourished in the Early Islamic period (Hourani 1995: pp 61 ff). While there is plentiful evidence of Far Eastern ceramics at UAE archaeological sites from the fourteenth century AD onwards, this trade is not well testified in archaeological terms at an earlier date, hence the significance of the presence of the Indian and Far Eastern Dusun sherds found at Kush.

Archaeobotanical finds retrieved from Kush also include coffee beans from thirteenth century AD levels. These are especially interesting as they provide the earliest dated indication of the use of coffee so far found anywhere in the Arabian Peninsula (*Anon.* 1996).

As we have already seen, Jazirat al-Hulayla on the coast north of Ra's al-Khaimah emirate was settled in the Sasanian/Early Islamic period but it saw an efflorescence during the Abbasid period. Excavations at al-Hulayla by a Japanese team proving a ninth to tenth century period occupation match the earlier results of Kennet's survey that had pointed to the peaking of settlement on the island in the ninth to eleventh century AD period (Kennet and King 1994: pp 167–169; Sasaki 1995: pp 1–23). Much of the archaeological evidence at al-Hulayla is in the form of ceramic scatters, but the Japanese excavations have demonstrated more concretely the Abbasid period occupation of the island.

Yet another site occupied during the same period is the inland fortress at Shimal, near Ra's al-Khaimah, known variously as the Palace of Sheba, Za<sup>c</sup>ba, or Zabba and also known as *Husn Shimal*. The excavators suggest that the fortress reached its most elaborate development in the tenth and the thirteenth centuries AD. Although the site shows evidence of an early period of occupation, subsequent clearance and rebuilding has led to the loss of material information relating to this earlier occupation. It is also suggested that a large flood deflector running across the Wadi Sur near the Palace of Sheba was first constructed in the ninth to twelfth centuries AD. This deflector served to send flood water descending from the highlands away from the Wadi Sur towards the dense band of palm-groves and gardens that lie in the hinterland of modern Ra's al-Khaimah city. Surveys associated with excavations at Wadi Haqil, also near Shimal and close to Sheba's Palace, have identified two sites tentatively interpreted as farms and occupied between the Early Islamic period and the thirteenth/fourteenth century (Stocks 1996: pp 145–163).

Kush, al-Hulayla, the Palace of Sheba and the Wadi Haqil sites are all close to each other and appear to be approximately contemporary, indicating a significant level of settlement activity in the hinterland of Ra's al-Khaimah city in the Early Islamic period. This period also sees an efflorescence of settlement at Suhar, as we have seen, and in the interior on the eastern side of the Oman peninsula mountains. Behind Suhar, there is also evidence that the *falaj*-irrigation supported agricultural regime reached its greatest extent in the fourth to tenth centuries AD. This irrigation regime was associated with the Wadi Jizzi that flows from the direction of the highlands and Al Ain/Buraimi down towards the Batina behind Suhar.

There is further literary and archaeological evidence of settlement in the Early Islamic centuries from elsewhere in the UAE. Al-Hamdani writing in the tenth century knew of a great *hisn* or fortress of the Bani Riyam in Oman (al-Hamdani 1884/I: p 52) but he does not say where it was located. The fortress is presumably the Riyam which Miles associates with Tuwwam (Al Ain/Al Buraimi). Yaqut al-Hamawi in *ca* 1225 AD also speaks of a citadel or fortress (*qasaba*) at Tuwwam.

A significant but still little understood archaeological site for the earlier Islamic period is that at Jumeirah, just west of Dubai. As we have seen already, the first excavator of the site, D. Baramki, suggested that it originated in the Sasanian period (Baramki 1975), but the presence of classic Abbasid glazed wares implies that the site continued in use at least into the ninth century AD. However, until the excavations at Jumeirah led by Dr Husain Al Qandil of Dubai Museum are published, it would be premature to estimate the origins and longevity of this important site.



Excavations at Julfar (1991). In the centre of the picture is the excavation of the five successive mosques carried out by the British team. Beyond is the area excavated by the French team.

From Dalma, also in the west of the UAE and the principal source of sweet water in the area, there is also evidence from a graveyard in the modern town of Early Islamic pottery. This is of great interest, for, so far, very little evidence has been found of activity in the western areas of the UAE in this period, apart from the monastery of al-Khawr at Sir Bani Yas, and that, after the eighth century AD, seems to have been deserted or on the point of abandonment.

Put into a broader context, this evidence of Abbasid period settlement from Ra's al-Khaimah and other parts of the UAE corresponds to settlement activity all along the Gulf coast in the same period. The best known site archaeologically for the Early Islamic centuries is Siraf on the Iranian side of the Gulf, but excavations and surveys now show Abbasid-period sites to be widespread, being identified at Suhar and, as we have seen, in the UAE, at Murwab on the coast of Qatar, in Bahrain, at al-Qusur in Kuwait and at the well-recorded site of Susa in south-west Iran.

Throughout this period, al-Basra in southern Iraq was the main town of the northern Gulf, the Early Islamic site now marked by al-Zubayr. Cumulatively, this information begins to give archaeological form to the Gulf as the major waterway of the Abbasid period when Baghdad was the centre of the Caliphate. All of this should be seen in the context of conclusions by earlier scholars, who have suggested that the disorders in southern Iraq associated with the Zanj, and the power of the Qaramita (Carmatians) in al-Hasâ and Bahrain led to a decline in Gulf trade around 1000 AD, and the shift of commerce to the Red Sea and the new Fatimid state based at Cairo<sup>5</sup>.

## The Fourteenth Century AD to the Later Islamic Period

The entire complexion of the political framework of the Middle East was transformed with the vastly destructive Mongol invasions initiated by Genghiz Khan in the early thirteenth century AD. These invasions culminated in the sack of Baghdad in 1258 AD and the murder of the Abbasid Caliph, al-Muta'sim. The line of continuous successors to the Abbasid Caliphate was brought to an end for the first time since they had established their rule in 750 AD. In the aftermath of the Mongol invasions, a series of new regimes emerged, among them the Turkish Kara Katayans of Kirman in central Iran who dominated the south-east of Arabia from 1224 until 1364 AD. The local power henceforth was Hormuz which emerged after 1300 AD. The princes of Hormuz still ruled the lower Gulf when the Portuguese arrived on the scene in the later fifteenth century and thereafter they continued as a regional power in conjunction with the Portuguese until the Safavid Shah 'Abbas brought their dominion to an end along with that of the Portuguese in 1622 AD. The coinage struck by the Hormuz princes at Jarun (Old Hormuz) was in circulation in considerable quantities at Julfar in the fourteenth to seventeenth century AD period. Understanding of this little studied coin sequence will eventually provide important knowledge about the rulers of the area (N. Lowick in Hansman 1985).

From the fourteenth century to the Late Islamic period and the eve of modern times, archaeological evidence abounds throughout the UAE. While sites all along the coasts and in the interior of the UAE bear witness (almost always based on ceramic evidence) to settlement in this period, it is at the excavated Islamic port site at Julfar in Ra's al-Khaimah that the Late Islamic period comes most clearly to light. Geomorphological studies and excavations have shown that the site now recognized as Julfar, the immediate predecessor of the city of Ra's al-Khaimah, dates from after the fourteenth century when a hut settlement was established on a sand bar which had only recently emerged from the sea.

The Julfar of the Early Islamic period appears to have shifted from its original site (wherever that was) to develop on this new location. It is hinted by al-Idrisi that by the twelfth century AD, sand-bars or siltation were affecting navigation in the Julfar area and it may be that the harbour of the earlier Julfar became un-navigable and it was found necessary to move to the new site. This new Julfar is that which is mentioned throughout the Portuguese period in the Gulf when the town enjoyed great prosperity as a regional trading entrepôt. Its connection with the Indian Ocean commercial network is reflected in the quantities of Chinese, Vietnamese and Thai ceramics recovered in excavation, along with Indian glass bangles and Iranian pottery.

The Julfar of this later period had a trading prominence which made it the equivalent of modern Dubai. Duarte Barbosa in 1517 AD describes the local merchants as being wholesale dealers, persons of worth and great navigators (Barbosa 1918/I: pp 73–74). When the Portuguese arrived, Julfar was under the jurisdiction of the ruler of Hormuz who benefited from its commerce and its pearling fleet (Dalboquerque 1875/I: p 246). In the early sixteenth century AD the Portuguese came to dominate the Indian Ocean trade with their string of forts from Hormuz to Goa, Malacca and Macao in China, and it is in this sixteenth to seventeenth century AD period that Julfar underwent a great expansion. The centre of the town was in the walled area known as al-Mataf but it extended north and south, to al-Nudud, towards Ra's al-Khaimah.

During this expansion, Julfar was transformed from a hut settlement to a town of much larger sand-brick houses. In the area excavated by the Japanese team of archaeologists working at the site, a grid-like pattern of streets was found running between the brick houses. In the central area of al-Mataf, a small sand-brick mosque of fourteenth or fifteenth century AD date underwent a series of reconstructions, presumably as increases in the Muslim congregation necessitated a larger area of worship. As a result, a sequence of five mosques were built one above the other, all on the same site with ever-increasing dimensions and dating from *ca* fourteenth century AD through to the sixteenth or seventeenth century AD. Near the mosque the British team excavated a large courtyard house which had continued in use over a considerable period of time, before the place declined and became once again the village of *carish* huts that it had probably been after the sand-bar first formed in the fourteenth century AD. It was as Julfar declined that Ra's al-Khaimah rose to prominence as the favoured centre of settlement.

The map of the coast of Arabia in the *Atlas* of Lazaro Luis, dated 1563 AD, shows a number of fortresses built by the Portuguese, including one at Julfar. A pronounced inlet is also marked, probably a silted creek which once formed the harbour. The silting of the harbour may account for the decline of this Late Islamic Julfar and the rise of its southern neighbour, the modern city of Ra's al-Khaimah, some time after the expulsion of the Portuguese by the local Arabs in the mid-seventeenth century AD. Ra's al-Khaimah is mentioned by Gasparo Balbi in *ca* 1580 AD, by the local Arab navigator, Ibn Majid, in the latter half of the fifteenth century AD and by Duarte Barbosa in 1617 AD.

By the eighteenth century AD, Ra's al-Khaimah was associated with the Al Qasimi sheikhs who still rule the emirate. The fortress of the town built by the Al Qasimi is now the National Museum of Ra's al-Khaimah. Sondages by J. Hansman suggested to him that the site of the fort had served as a camp during the military occupation of south-east Arabia by the Afsharid Turkmen ruler of Iran, Nadir Shah, between 1737 and 1749 AD. The fortress at Khatt, inland from Ra's al-Khaimah, also seems to have been used by Nadir Shah's forces.

Further north along the coast from Ra's al-Khaimah is the fortress at Dhayah, on the summit of a steep hill at the foot of the mountains, near to the harbour of Rams. Dhayah played a role along with Ra's al-Khaimah city in the fighting with the British expeditionary forces of 1809 and 1819. Inland, the Palace of Sheba (*Qasr* Za<sup>c</sup>ba) still functioned in the later Islamic period although, as previously seen, its origins are older.

Many Late Islamic towers occur throughout the UAE, the best recorded being those that once formed a defensive system around Ra's al-Khaimah (Wa'dad and al-Kharkhur 1992; Kennet 1995). The tradition of tower construction in the Oman peninsula may be of great antiquity, with fortified towers, all of the third millennium BC, being recorded at Hili in Al Ain, at Bidiyah in Fujairah and Tell Abraq. The Early Islamic sources, as we have seen, also refer to fortifications at Tuwwam or Riyam (Al Ain/Al Buraimi). It is possible that changes in military technology and the use of artillery, first introduced to south-east Arabia by the Portuguese in the late fifteenth century AD, affected the evolution of UAE and Omani fortification traditions, with the artillery fortresses of the Portuguese having an impact on some local fortifications (d'Errico 1983: pp 291–306).

There are a number of extant later Islamic fortresses scattered around the UAE, including those at Fujairah, Umm al-Qaiwain, Ajman and Dubai, as well as that at Ra's al-Khaimah. In Abu Dhabi emirate there are also forts in Abu Dhabi city itself, and inland in the Liwa and

the Al Ain oases (el-Mutwalli 1997). Remains of a fortress have been excavated inland at Mantiqat al-Sirra by S. Garfi for ADIAS, near Madinat Zayed in the Western Region of Abu Dhabi emirate (Czastka and Hellyer 1994: pp 9–12). This fortress has been associated tentatively with the events of the year 1633 AD, when the leader of the Bani Hilal, Nasir b. Qatan, was joined by members of the Bani Yas at the fort of al-Dhafra 'on the confines of Oman'. It is possible that the fortress at Mantiqat al-Sirra is synonymous with the al-Dhafra fort. This episode is also interesting inasmuch as, taken with Balbi's reference of *ca* 1580 AD to the island of Sir Bani Yas (*Sirbeniast*), it provides an indication of the length of time that the Bani Yas rulers of Abu Dhabi have been present in the region.

Until recently, the fortifications of the Portuguese period in the UAE have been better recorded by early maps of individual fortresses around the south-east Arabian coast, than by archaeology. However, an Australian team has now excavated the fort of Bidiyah in Fujairah which is identified with 'Libedia', a Portuguese fortress recorded by de Resende in his 1646 AD map (de Resende, 1646; Ziolkowski 1999: pp 19–21). The walls of the Portuguese fortress of Bidiyah were largely built with masonry from a third millennium BC tower nearby. The Portuguese fortress measures 60 m a side and C14 analyses from the foundation levels confirm a date of 1450–1670 AD for the building, matching the date of ceramics retrieved during the excavations. These in turn are comparable to the ceramic sequence from Julfar and sites at Khashm Nadir, in Ra's al-Khaimah. While the Bidiyah building is identified as a Portuguese fortress, archaeological material remains reflecting Portuguese presence at the fortress site are limited. This contrasts with Portuguese sites elsewhere in the Indian Ocean, where there is more evidence of items imported by the Portuguese from Europe (Kirkman 1974: pp 119 ff and 297 ff).

Apart from fortifications, there is evidence all over the UAE of Late Islamic period settlement, often in areas where we have little or no archaeological material from Early Islamic times. This has provided a broader picture to counterbalance the importance that past archaeological studies have tended to give to Julfar and which has afforded such a wealth of information for the Late Islamic period. At Wadi Safad in Fujairah, fieldwork has shown its efflorescence in the Late Islamic period, a pattern which is probably typical of settlement in the valleys of the mountainous north of the UAE. Agriculture in Wadi Safad, which was sustained in the past by water tapped from springs in the mountainsides, used *falaj* systems that irrigated terraces and plantations, although many of these have now fallen out of use. In the mountains above Wadi Safad are numerous farms and many of these, too, are abandoned. Such farms occur all over the highlands of the Jebel Hajar. Dostal has recorded the stone-built architecture of similar mountain farmsteads in Ra's al-Khaimah (Dostal 1983), while Paolo Costa has described farms and their architecture further north in Ru'us al-Jibal in the northern enclave of the Sultanate of Oman (Costa 1991: pp 95–143). Such mountain farmsteads appear to be of Late Islamic date.

Not far to the north of Wadi Safad on the coast of Fujairah is the remarkable four domed mosque at Bidiyah whose design is unique in the UAE and which also belongs to the general framework of the later Islamic period. However, while other older mosques are known elsewhere in the UAE, at Julfar, al-Falayya, Jazirat al-Hamra' and Dalma, the mosque at Bidiyah belongs to a very different architectural tradition. Although it hints at mosques in Yemen, especially on the Red Sea coast, it is of a different character to them as well (al-cAbudi 1992; Willems and Allaire 1994: pp 73–76). Other Late Islamic mosques are preserved in Ra's al-

Khaimah, and a group of mosques together with a pearl-merchant's house of the same later period is situated on the island of Dalma in Abu Dhabi emirate (King, at press). A very tentatively identified mosque, cautiously dated to the nineteenth century AD, was excavated at al-Hamriyah in the city of Sharjah by a French team of archaeologists (Mouton 1989: p 23).

In Sharjah and at Dubai in the Bastakia area, there still survive a number of traditional buildings which include several wind tower-houses (Coles and Jackson 1975; Rustamani, n.d.; Azzawi, n.d.). Dr M. Azzawi has restored a number of these later Islamic monuments in Sharjah and has published accounts of his work. Similar wind-tower buildings survive in Ra's al-Khaimah, and they once existed in Abu Dhabi. These are all related to a broader Gulf building tradition that is also encountered in Qatar, in Bahrain and on the Iranian side of the Gulf. The extant traditional buildings still scattered around the UAE and elsewhere in the Gulf have an archaeological significance in that they may well preserve the appearance in elevation of buildings only now surviving at archaeological sites in terms of wall footings, exposed in the course of excavations. These extant buildings therefore provide a level of guidance to understanding the character of the architecture of the UAE coasts in earlier periods.

Little archaeology has been possible in the rapidly developing modern cities of the UAE although a certain amount of work has taken place in Ra's al-Khaimah, Sharjah, Abu Dhabi and Dalma. D. Kennet undertook excavations of Late Islamic structures in the city of Ra's al-Khaimah, while at Sharghan in Sharjah city, opposite the Al Qasimi hospital, a large site was found which was assigned by the excavators to the nineteenth century (Mouton 1989: pp 23–25) and which is presumably related to Sharjah's pre-modern existence. In Abu Dhabi city, only the Al Nahyan family graveyard now preserves the original landscape of Abu Dhabi island before it was developed in modern times, with ceramics found on the surface that date from the Late Islamic period. In the course of restoration of the late mosques at Dalma by Dr Azzawi, the wall foundations of Late Islamic structures were exposed near the al-Muraykhi mosque.

The islands off the UAE coast provide numerous and persistent indications of settlement in the later Islamic period, some of which suggest transient and seasonal habitation, associated with pearling and fishing. Such sites are often marked by shell middens and sometimes scatters of typical Julfar horizon Late Islamic ceramics. The shell middens tend to consist of both pearl oysters and dietary shells and are frequently encountered on the more undisturbed islands, like the Yasats, Humr, Ufzaiyya, Ghagha', Marawah, al-Aryam (Bu Khushaisha) and Balghelam, while there used to be the remains of an old fishing village called 'Awafi on Sir Bani Yas, which had large middens. Late Islamic finds on Abu'l-Abyadh, al-Rufayq and al-Qusabi and other islands all indicate activity in this later Islamic period, almost always associated with pearling and fishing. Similar types of sites were noted by Boucharlat along the coastline of Sharjah on the mainland (Boucharlat 1989: pp 32–33).

The numbers of Islamic graves give some indication of the population in the later Islamic period on islands that are now largely deserted. There is every reason to suppose that archaeological evidence of pearling and fishing activity, its extent masked by modern development, would have occurred on all the islands off the coast in the past.

On some islands, evidence of settlement more permanent than mere camps is found, in the form of small villages, the basis of whose economy would also have been fishing and pearling. Their Late Islamic date is indicated by the usual Julfar horizon range of ceramics. Although many of these smaller villages have vanished with modernization, traces of some of them have been recorded in the course of archaeological survey. They include the Late Islamic village of Dalma on the southern shore of the island of the same name (the walls of which Azzawi exposed), the now-vanished villages of al-Thahir and 'Awafi on Sir Bani Yas, and Bu Karwa on al-Aryam. Surviving villages on Marawah include Ghubba and Liffa which appear to be the descendants of Late Islamic villages. As to the character of these island settlements, it seems that many of their structures consisted of 'arîsh reed huts and stockades like those that appear in old photographs of the UAE towns before the modernization of the country in recent decades.

While most of the island sites are from the later Islamic period, evidence of *ca* fourteenth century AD activity has been found at Dalma, al-Rufayq and Sir Bani Yas. At Sir Bani Yas and Dalma such dating is suggested by the presence of Far Eastern ceramics including celadons in addition to the blue and white porcelains of sixteenth to seventeenth century AD date.

Stone outline mosques and water catchment systems are encountered on some of the islands off the coast of Abu Dhabi. The mosques are of a simple type found all over the Arabian Peninsula and desert areas of the Middle East. Those on the Abu Dhabi islands vary between a simple outline of single stones serving as a place of prayer for a small number of individuals, perhaps no more than one or two, and those for a larger congregation.

The water deflectors exploiting the topography of the limestone surface formations to store water are structures that characterize many of the islands. Places where rainwater tends to gather are often amended by these man-made water deflectors which direct the water to places where it can pool during the wet seasons. These water catchments are usually found without any dating material, but their prevalence and their association with other features such as stone-outlined mosques suggests that some, at least, should be linked to the Late Islamic period.

A unique coastal site associated with the later Islamic period is located at Jebel Dhanna, in the Western Region of Abu Dhabi. Jebel Dhanna is a diapiric salt dome, one of several in the region, and it has very pure sulphur deposits. Sulphur was traditionally used for curing camels of diseases and for general medicinal purposes, but although exploitation of the sulphur may be ancient, until the coming of the Portuguese its use would have been limited. After their arrival and the introduction of guns and artillery, however, sulphur was demanded in quantity for the manufacture of gun-powder. With its large-scale sulphur deposits, Jebel Dhanna underwent extensive mining from *ca* sixteenth century AD onwards, leaving numerous pits and trenching along with Late Islamic pottery and occasional pieces of pure yellow sulphur scattered all over the mountain.

In contrast to the coast and islands, a very different environment is represented by the desert which characterizes much of the interior of the UAE, especially Abu Dhabi. This desert constitutes the eastern edge of the vast Empty Quarter sand-sea that covers much of the southern half of the Arabian Peninsula. Since pre-Islamic times, the desert has been a landscape of nomadic camel herders, camping near the limited number of water sources, usually around the perimeters of the deep desert. Archaeological scatters in the sands, in all periods, are very limited, usually reflecting the accidental loss of a lithic tool kit or the loss or breakage of a few ceramic vessels. These finds are mostly discovered on the interdunal gravel plains, the palaeofloors that represent the desert surface before the sands of the Empty

Quarter overwhelmed this earlier gravel surface. In rare cases, at Sahil, for instance, north of Liwa, and at Tawi Baduwa Shwayba, there are denser scatters of Late Islamic pottery and other ceramic sites of this character may exist. They presumably mark litter from nomadic campsites, but they also reflect the range of ceramics that penetrated these interior desert regions in the later Islamic period.

- Abu Dhabi Islands Archaeological Survey (ADIAS) was established in 1992 on the instructions of HH President Sheikh Zayed b. Sultan Al Nahyan under the patronage of HH Lieut-General Sheikh Muhammad b. Zayed Al Nahyan.
- The Arab geographers use the broad geographical term Uman to describe the territory encompassed by the UAE and the Sultanate of Oman.
- <sup>3</sup> Al-Dur was the subject of excavation by a series of international expeditions, and is best summarised by D.T. Potts, *The Arabian Gulf in Antiquity*, Oxford (1992), ii.,'... By the fourth century AD it seems to have fallen out of use'. Dr Peter McGee is currently excavating this Iron Age site, a walled town of remarkable extent. The site of al-Milayha appears not to have remained settled beyond the fourth century AD (M. Mouton, *La Peninsule d'Oman de la fin de l'age du fer au debut de la periode sassanide* (250av.–350 ap.JC). unpublished doctoral thesis, Universite de Paris (1992).
- <sup>4</sup> To this list of Nestorian churches should be added a possible church at Siraf on the Iranian coast. The building concerned is basilical and is now dated to the ninth century. AD, but although the excavators thought it could be a church, they express great caution about this (Whitehouse, 1974, pp 21–23).
- <sup>5</sup> For a discussion of this premise of a shift of commerce from the Gulf to the Red Sea, see B. Lewis, 'The Fatimids and the Route to India', *Revue de la Faculté de Sciences Economiques d'Istanbul* (1953); see also C. Cahen, 'Buwayhids or Buyids', *Encyclopaedia of Islam* (new ed.).

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