

importance in confirming the continuity of occupation on the islands of Abu Dhabi during a period that is still little understood.

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7. Darwish Juma al-Rumaithi, a local fisherman, has indicated that he used such hearths on the island of Balghelam in the 1950s and/or 1960s (Al Rumaithi, *pers. comm.*, 1997).
8. A small circular hearth with a piece of Late Islamic pottery used in its construction has been identified by ADIAS on Abu al-Abyadh (Hellyer *et. al.*, 2001.)
9. See ceramic analysis by Dr. R.A. Carter in King, Hellyer & Aspinall, [1999].

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## A newly recognised Iron Age site near Jabeeb, Al Ain, U.A.E.

by Brien Holmes

The presence of Iron Age settlement in the area between the city of Al Ain, in the Eastern Region of the Emirate of Abu Dhabi, and Dhaid, in the Emirate of Sharjah, in areas that are now covered in sand and unsuitable for agriculture is well attested. Immediately north of Al Ain, the Iron Age village at Rumailah has walls that were still standing to a height of two metres when excavated in the 1980s, although it was completely covered with sand. Further north, near the rocky outcrop of Qarn bint Saud (or Bida bint Saud), the presence of an Iron Age *falaj* (pl. *aflaj*) and village has been proven by recent excavations carried out by Dr. Walid Yasin al-Tikriti, Archaeological Adviser at the Department of Antiquities and Tourism in Abu Dhabi's Eastern Region. On the al-Madam plain, south of Dhaid, another Iron Age settlement concealed beneath the sand has been the focus of recent excavations carried out by the Autonomous University of Madrid, in association with the Sharjah Directorate of Archaeology, part of the Department of Culture and Information.

In the intervening areas, evidence of an Iron Age *falaj* was identified in the 1980s by Dr. al-Tikriti in the Jabeeb area, more than fifty kilometres north of Al Ain, although it has not yet been published.

With the exception of Rumailah, the sites above mentioned all have *falaj* irrigation systems, now dried up, although they are a considerable distance from the Hajar Mountains, which provide the sources of water for the *aflaj* of the villages in the Al Ain/Buraimi area. All are now also largely covered, often to a depth of two metres or more, by mobile sand dunes. It has been presumed that, during the Iron Age, there were supplies of underground water close enough to the surface to be tapped by *aflaj*, these supplies perhaps being supplemented by greater rainfall than there is today.

With a declining water table, and perhaps a decline in rainfall, the *aflaj* would have dried up, agriculture would have become increasingly unproductive and the settlements abandoned. The sand dunes would then have moved in to cover much of the settlement area, although remains of them, including artefacts such as potsherds, remained visible in areas of inter-dunal plains.

During weekend forays from Al Ain over the last few years, I have been able to locate numerous archaeological sites in the inter-dunal plains to the north of Al Ain. Many of these have yielded pottery of Late Islamic date, and may represent simple, but frequently re-visited, camp-sites comparable to one identified in the late 1970s by the Emirates Natural History Group near Al Khatam, on the route from Al Ain to Abu Dhabi.

In late 1999, I ventured into the Jabeeb area, exiting the Al Ain - Dubai highway at the Jabeeb overpass, which provides access to recently-established farms on either side of the highway. The route to the west was taken, towards an area where the sand dunes are higher, and the track is more substantial, due to the presence of numerous camel-camps and a small five-kilometre training track for camel-racing.

I returned to an area where I had previously located an iron object which was initially assessed as being a piece of jewellery, but which, on further study, seemed to resemble a key. The 'key' itself had been found on an inter-dunal gravel plain, surrounded for the most part by sand dunes. To the north-west, however, a flat promontory about the size of two football fields rose several metres above the floor of the plain.

On the surface of the promontory was an extensive scatter of potsherds, so thick that in many places it was almost impossible to walk without treading on them.

Recognising that the sherds were different from those familiar to me from the late Islamic camp-sites, I collected a representative sample and made it available for study to Dr. Robert Carter, ceramicist of the Abu Dhabi Islands Archaeological Survey. Dr. Carter identified the whole assemblage as being Iron Age in date.

A few weeks later, I was able to re-visit the site with Dr. Walid Yasin al-Tikriti, who noted that the site was several kilometres distant from the *falaj* he had previously identified in the Jabeeb area (all trace of which has now been obliterated by recent agricultural development). Dr. Al-Tikriti also confirmed that the potsherds were Iron Age in date, and noted that there was evidence of piles of soil at various points in the area, suggesting the possibility of a further *falaj* or *aflaj*.

A GPS reading gave a position of 24 deg. 35 mins. 34 secs, N; 55 deg. 35 mins. 57 secs. E., while the site is 12.3 km into the desert from the Al Jabeeb underpass on the main highway.

With Dr. Al-Tikriti, I also visited a number of other pottery scatters I had identified in inter-dunal plains in the vicinity, these all proving to be Late Islamic in date.

Although the Iron Age date of the new Jabeeb site is confirmed from the ceramic evidence, the purpose of the site has yet to be determined. There are no signs of buried structures, such as shadows of walls on the surface, or of collapsed structures. The adjacent flat gravel plain would, presumably, have been suitable either for grazing animals or for agriculture at a time of greater rainfall or if irrigated, although the presence of a *falaj* is not confirmed. Perhaps the promontory was used over a long period as a camp-site for Iron Age inhabitants bringing animals to pasture.

Further study of the site is clearly necessary if these questions are to be resolved. However, there is extensive development currently taking place in the area, with dunes being levelled to prepare land for farming. The survival of the site is by no means guaranteed, and this preliminary 'Note' has, therefore, been prepared simply to place the existence of the site on record. Many more archaeological sites may lie within the eastern edge of the dunefield running north of Al Ain, although with the current pace of development, many may be destroyed before they are even recognised.

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I am also grateful to Dr. Robert Carter for examining the pottery, and to Dr. Walid Yasin al-Tikriti for also looking at the pottery and for visiting the site with me, as well as for his insights into the nature of the Iron Age presence north of Al Ain.

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### The damselfly *Pseudagrion decorum* breeding in the U.A.E.

Visiting amateur naturalist Graham Giles published an illustrated checklist of UAE dragonflies and damselflies in *Tribulus* 8.1 (Winter 1998). His work, and his predictions, facilitated the subsequent discovery in the UAE of two additional damselflies known to be resident in Oman. One of these, *Pseudagrion decorum*, a small electric blue species (first reported in *Tribulus* 9.2), was recently found to be abundant at the Wadi Shi dam near Khor Fakkan. This site provided the first records of *P. decorum* females in the UAE. These are dull yellow in colour. A number of pairs were observed mating, both flying in tandem and perched in "wheel" formation.

In one dramatic instance a pair flying in tandem alighted on a tiny sprig of underwater plant projecting above the lake surface. The female began to descend along the stem until she had pulled the male almost entirely underwater. At that point he released her and flew free.

She, however, continued to inch down the stem, tail first, "looping" like a leech, until she was out of sight some 6-8 inches or more below the surface, seeking just the "right" place to lay her eggs. Moments passed while three males circled over the sprig for 30 seconds, 60 seconds, 90 seconds, perhaps more, before she suddenly came up to the surface like a diver in a free ascent, only to be snatched up immediately in tandem once more.

The ladies in question apparently know what they want. Another female, deposited on some near-horizontal branches only an inch or two below the surface, fidgeted almost constantly during more than five minutes underwater, investigating various spots with the tip of her abdomen. It wasn't clear in the end if she had laid her eggs or not, but she, too, was off in tandem again within only a second of regaining the surface.

Despite its name, mating among *P. decorum* is a rather ungentlemanly affair. One pair mating in wheel formation on a twig was repeatedly molested by other males who landed on both the mating male's arched abdomen and the female's wings.

Gary Feulner



A mating pair of *P. decorum*