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The Snake figuration in Iron Age society

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Introduction

Research carried out during the last twenty years in Eastern Arabia has progressively documented Iron Age society (1200-400 BC), bringing to light a huge quantity of architectural remains and archaeological objects. These data have already been exploited to define several aspects of these societies and, despite the lack of texts or literature it now seems possible to attempt to depict the domains of religion and symbolism archaeologically with some confidence.

Fig. 1. Main Iron Age sites in the Oman Peninsula.
Fig. 2. Bronze and copper figurines of snakes found in the Iron Age sanctuary at Masafi-3 (French archaeological expedition in the United Arab Emirates / CNRS).
Two activities were clearly central to the Iron Age economy: agriculture, based on irrigation provided by subterranean draining galleries, and copper mining, which supply a large-scale copper industry. The importance of the snake symbol is suggested by the huge number of snake representations collected on several Iron Age cultic sites (al-Qusais, Bithnah, Masafi, Salut, Saruq al-Hadeed) (Fig.1). The relationship between snakes, water and copper will be discussed here, mainly on the basis of archaeological data obtained during researches carried out in the U.A.E. by the French and Spanish Missions in Rumailah, Bithnah, Masafi and al-Madam regions.

Fig. 3. Copper snake decorated with small circles found in the Iron Age sanctuary at Masafi-3 (French archaeological expedition in the United Arab Emirates / CNRS).

Fig. 4. Handle of a pottery ladle found in the Iron Age sanctuary at Masafi-3 (French archaeological expedition in the United Arab Emirates / CNRS).
Data

Snake representations had been found on several Iron Age sites (al-Qusais: Taha 1983; Rumeilah: Boucherlat & Lombard 1985: pl. 51/7) and during surveys (Nud Ziba: De Cardi et al. 1994: fig. 8: 40-41; BB-15: Humphries 1974: fig. 10/a-b; Am Dhurra: De Cardi 1977: fig. 3: 106). They were remarkable enough for several scholars to consider the possible existence, during the Iron Age, of a cult devoted to one or more deities represented as a snake (Taha 1983; Lombard 1985). The real importance of the snake symbol in regional ritual practices could be, however, only properly assessed during the last ten years, when excavations were conducted on sanctuaries at Bithnah, Salut, Masafi and Saruq al-Hadeed. Here, dozens and sometimes hundreds of objects in the shape of a snake, or on which snake representations were depicted, were collected.

Objects

Numerous figurines in copper or bronze in the shape of a crawling snake (Fig. 2) are found (Taha 2009: pl. 53; Benoist in press: fig. 4; Harahsheh 2008: fig. 26). These snakes, of various sizes, with an oval or triangular head, are often rather crude, being flat, without any anatomical detail or decoration. They seem to have been made from copper or bronze sheet cut, folded and hammered. A few examples present
impressions of small circles (Fig. 3) or herringbone patterns (Taha 2009: pl. 53 – snake on the left; Benoist *rap Fj* 2009: fig. 18).

At Salut several examples of another type of snake figurine in copper or bronze were found. These are heavier, and have been cast in a mould. They are still crawling snakes, with a rounded, slightly flattened section, but these snakes show details such as eyes or spots, made from little hemispherical pieces of bronze welded onto the body (Avanzini *et al.* 2007: fig 19).

At Masafi-3, four cast snakes collected in the north-eastern part of the excavation could have been parts of a single object, decorating a podium, chest or door (Benoist, *in press*: fig. 5). They are only 8 cm long, compared to 25 cm at Salut. These four snakes are all crawling, with small pointed lugs on the belly, probably attachments,
with flat lugs on both sides of the head and tail, probably attached to a bar along which all the snakes were set. These cast snakes could be part of an ornament placed in the sanctuary or were detached from another object (offered to a divinity?).

Finally, a miniature knife with a slightly crescent-shaped pommel was collected at Masafi-3 (Benoist in press: fig. 6). It had a double-sided blade showing a small engraved snake. Again it is a crawling snake with eyes represented by engraved dots, two lines on the neck, and a dotted decoration on the body.

Snake representations are also frequent on pottery from sanctuaries, including ordinary jars, spouted jugs, bowls mounted on a cylindrical foot and small bowls with a long horizontal handle fixed to the bottom (Fig. 4). These latter shapes are absent in settlement areas and graves. They are commonly interpreted as braziers, maybe incense-burners, although the substance which was burnt inside is not known for certain.

The position and location of the snake decoration varies from one vessel to another. Most often, snakes are represented in the crawling position with the body creating
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A zig-zag on the wall of the pot (Fig. 5). More rarely, snakes are in a coiled position, their body represented by a spiral on the wall of the pot. They are generally on the outside walls of the pots, on the upper part of jars and jugs, on the foot of footed braziers, or on the long handle of braziers. Generally the head of the snake is pointing to the rim of the vessel, or just fixed on the rim, in some cases entering the vessel. A small number of the snake-decorated bowls from Masafi-3 and Salut have a snake decoration inside the vessel (Avanzini et al.: 5; Benoist in press: fig.10).

Most of the snakes are represented singly, in a realistic style. Some might be more or less schematic. Eyes are represented by two small engraved dots, two small dots-in-circles, or two small rounded bumps with a dot engraved on top. The mouth is often shown by a deep incision, sometimes slightly incurved towards the top of the head (smiling snakes). When visible, the tongue is a Y-shaped incision on the front of the mouth. Nostrils may be marked by small, deeply engraved dots. Spots or scales characteristic of the skin of various snakes are frequently suggested by small impressed circles, more rarely by painted spots. The head is triangular or oval, often with rounded or pointed bumps on each side. In Masafi-3, many snakes have pointed bumps on the top of the head, looking like pointed ears. These could represent the horns of horned vipers (Cerastes cerastes), a venomous species native to the region.

Rarely, snakes are associated with other zoomorphic or to anthropomorphic representations. At Bithnah a footed vessel was found in the shape of a naked man brandishing a bowl on which a snake is crawling (Benoist 2007: fig. 14). In the pillared building of Masafi-1 a brazier has snakes crawling on the foot and birds perched on the rim. Another brazier has a foot in the shape of two camels with a snake on the side, carrying a goblet with a bell-shaped lid which a handle in the shape of a goat or sheep; it was found associated with a figurine representing a naked man with a type of keffieh on his head and a snake around his waist. Finally, a figurine collected in Masafi-3 is shaped like a camel or sheep, with painted snakes on the body and crawling snakes in relief appliqué on the back (Benoist in press: fig. 13).

Distribution of Snake Figurations

Snake representations of Eastern Arabia are never found in domestic settlements or graves, but concentrate in sanctuaries (The Mount of Serpents at al-Qusais, Bithnah-44, Salut, Masafi-3, Saruq al-Hadeed) and in buildings such as large columned halls which have been interpreted as official meeting places or administrative buildings (Building G at Rumeilah, Building II at Muwailah, Buildings A, B and C at Masafi-1).

The Sanctuaries

The Mount of Serpents at al-Qusais covered a small rectangular building built of slabs of farush probably opening to the north. This small building was located inside a sebkha, within a large occupation area marked by fireplaces and temporary installations structures (Taha 2009: 92-95, pl. 1, 10-11, 26, 27, 28, 46, 49, 52, 53, 54). Patches
of ash and a huge quantity of finds were scattered on the ground around the building but no altar-like construction could be detected. The finds are characteristic of Iron Age II period (1100 – 600 BC) and include specific shapes such as long-handled bowls or footed vessels decorated with snakes. Copper or bronze snakes as well as hundreds of bronze arrowheads are also mentioned among the finds.

At Bithnah, the first building erected was probably a sanctuary, including a podium, opening to the north onto a sacred area where remains of animal sacrifices (sheep and goats) were deposited in pits carefully sealed with clay or small stones (Level 1). During a second occupation phase (Fig. 6), the building became a meeting place, and included a columned hall. The sacred area was delimited by a boundary of small stones and further animal bones were buried in pits protected by a clay or stone covering. Small cylindrical pits lined with stones and mortar, were also dug in the holy area, into which liquid offerings were probably made to the divinity. An open-air altar was built in the eastern part of the site in front of which offerings including copper droplets and copper slag were deposited in jars buried in pits. To the north of the sacred area a small rectangular structure open to the north was erected. It included a podium upon which aromatic products were burnt inside small braziers. To the north-west of the site a large basin was dug into the floor. It received water from a canal coming from the north, of which only the mouth was preserved. This basin may have been used for ablutions related to the cult. During a third phase of occupation (Fig. 7), the eastern open-air altar was abandoned and a new open-air altar may have been erected on the top of a rocky hill just to the south of the sanctuary, accessible by a zig-zag path. In the centre of the Bithnah site the building with the columned room was enlarged and a new boundary was built around the sacred area, while to the north, a second small building including a podium was built next to the previous one. To the north-west a new basin supplied by a canal was installed. Each level produced finds including a large proportion of pottery decorated with snakes in relief appliqué.

The sanctuary of Masafi-3 measuring 7 x 4 m, fully open on the western side was constructed in stone and mud brick, some wooden pillars supporting the roof. Two successive occupation phases were distinguished. The second one was marked by an enlargement of the structure to the west, a rearrangement of the wooden pillars, and the building of four rectangular podiums in mud brick, probably four altars or four bases supporting a single platform in front of the opening. Both occupation levels produced a huge quantity of material, including miniature weapons, small snake figurines in bronze, and pottery vessels decorated with snakes, mainly long-handled bowls and footed vessels.

Salut, in the western Sultanate of Oman, was built on a massive platform of mud brick erected on the top of a rocky hill, over the remains of a huge fortified enclosure which dominated the plain of the wadi Bahla from a height of 25 m (Avanzini et al.: 2007). The access to the platform might have been to the north, up a staircase or a ramp of which only the foundations are preserved. The material associated with the
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platform included pottery vessels decorated with snakes, among which were more than forty small long-handled bowls comparable to the ones at Bithnah and Masafi. Bronze snakes were also collected, some in copper like those at al-Qusais, others in cast bronze of a type not attested elsewhere. Pits dug in the platform produced pottery characteristic of Iron Age III. Just below the platform, the remains of earlier collective buildings have been dated by C14 to between 1300 and 1000 BC (Avanzini & Phillips 2010).

Saruq al-Hadeed is located in the desert area of the southern part of Dubaï Emirate, 60 km from the mountains. It consists of a large concentration of copper slag which extends over several hectares. Since 2003, excavations have been carried out on this

Fig. 8. Building G in the Iron age site of Rumeilah and its columned hall (French archaeological expedition in the United Arab Emirates / CNRS).
site by a Jordanian team supervised by S. H. Qandil. The site has been described as an industrial area where metal objects were manufactured, not as a sanctuary. But a huge assemblage similar to those usually found in sanctuaries has been discovered there, including, notably, snake figurines and tall incense burners in bronze or copper, storage jars with snake representations and painted, spouted pottery vessels (Qandil 2003, Harasheh 2008, Nashef 2010). However, it seems that no remains of any building were discovered, either in association with this rich material or nearby among the huge mounds of copper slag. There may have been some sort of cultic place maybe constructed of perishable materials now undetectable.

**Columned halls**

Objects with snake decorations were also found in collective buildings on several Iron Age II sites: levels 2 and 3 of building G at Rumeilah (Fig. 8), Building II at Muwailah, buildings A, B and C (levels 1, 2 & 3) at Masafi-1. All are organized around a large central room whose roof was supported by 1 to 3 rows of wooden posts, themselves set upon mud brick and stone bases, in some cases even resting on bases built against the walls. The floor and walls of this large room were usually covered with a whitish render (clay and lime?). The room was accessible either from outside or from a smaller room via an often large entrance, in with a double door as suggested by a central jamb visible on the floor (Muwailah).

This room sometimes included small structures such as fireplaces (one oval fireplace in the corner at Rumeilah and Muwailah, a small rectangular fireplace in building A at Masafi-1), rectangular podiums (a small rectangular podium was facing the entrance at Muwailah, two lateral podiums were set along the eastern and western walls in building B at Masafi-1) and niches (two niches were inserted in northern wall in building B at Masafi-1). None of these small installations could be clearly interpreted as a religious structure such as an altar.

Next to these buildings, large pits lined with mud brick or stone were discovered: at Rumeilah 3 large pits containing ashes were found next to building G in the second level of excavation 2; at Bida bint-Sa‘ud, W. Yasin al-Tikriti reported a large pit built of stone with traces of burning inside; at Muwailah a pit including animal bones was found next to building II (Magee pers. comm.); at Masafi-1, a large tanour built partly of pottery and partly in stone was associated with building A in level 1. Columned halls were interpreted as places of prestige and ceremony, where meetings and banquets might have taken place; and also as administrative buildings inside which goods belonging to the community might have been stored and maintained. Some might have been associated with copper production and distribution, (Muwailah: Magee 2003; Masafi buildings A and B (levels 1 and 2): Benoist et al. in press). Other such buildings may have been assigned to the administration of water provided by the *aflaj* (Bida bint-Sa‘ud: Yasin al-Tikriti 2002; Rumeilah: Boucharat & Lombard 2001; Masafi-1: Benoist et al. in press).
Copper and the Snake

The ophiolithic formations of the Oman Mountains bear rich veins of copper which ancient societies exploited for their own needs, as well as for long-distance trade. The copper of Magan, already exported to Mesopotamia during the third millennium BC, continued to be extensively exploited by local communities during the Iron Age. Iron Age copper smelting sites were found at Raqî-2 (Weisgerber & Yule 1999: 114-116), Bilad al-Maidin (Weisgerber 1981) and Saruq al-Hadeed (Harahsheh 2008). This latter site illustrates in a remarkable way the particular relationship which existed between the snake symbol and the copper industry, as snake representations were found in large quantities in the middle of a huge concentration of slag extending for several hectares within a sand dune area. The site of Saruq al-Hadeed could be viewed as an anomaly, as it is located more than 50 km away from the Oman Mountains where the copper veins were exploited, and even if it is accepted that what mattered was the availability of wood (fuel for copper smelting) there were several oases closer to the mountains. The location of Saruq al-Hadeed must have been a response to other needs, which justified the transport of the copper ore - and maybe of additional minerals - over a long distance. For that reason it is possible to hypothesise that the craft at Saruq al-Hadeed was done within a particular symbolic, social or cultural framework. The huge quantity of material bearing snake representations collected there suggests a sanctuary: the craft activity was maybe placed under the protection of the snake.

At Bithnah a podium found in occupation level II (Fig. 6) was interpreted as an altar. On that low, circular construction 2.40 m in diameter made of yellowish clay, two curved lines of stones were arranged which could be part of a snake motif. The head would be to the north, marked by a widening of the stone alignments into a triangular shape. In front of this head a small pile of twelve carefully selected pieces...
Fig. 10. The Iron Age qanat AM2 at Tuqeibah, al-Madam (Spanish archaeological expedition in Sharjah / Universidad Autonoma de Madrid).
of slag (each one around 10 cm thick) were found. They were not associated with any other object or tool, or with traces of metalworking in this area. These pieces of copper slag were the only ones collected on the site and their position precisely in front of the mouth of the snake suggests an intentional deposit.

In the same area, around the same altar, were found three pits 50-60 cm in diameter and 60 cm deep. Pit C.544, next to the copper slag pile in front of the snake’s head contained two large broken storage jars *in situ*, one of which was decorated with snake representations. The opening of this jar was clearly facing the head of the snake. Inside were found more than a hundred small copper droplets 0.5 to 1 cm in diameter. On the other side of the altar, pit C.565 contained the fragments of three storage jars, one decorated with snakes, but no fragments of copper were collected there. Finally, pit C.580, to the south of the same altar, was partly destroyed by an Islamic grave. It produced potsherds of a large basin decorated with two snakes painted on the rim, and a small necked jar. A few copper droplets were collected in the pit.

Chemical analysis of the copper droplets showed that they are the usual by-product of the first copper smelting process. They should have been smelted down again to produce the more homogenous copper usually used by craftsmen. They were deposited near the altar before this further smelting. The homogeneity of their size and shape indicates that they were sorted to be deposited inside the jar. These suggest an intentional deposit for cultic reasons².

In al-Qusais, excavators have collected an exceptional quantity of bronze or copper objects on the Mount of Serpents: 622 arrowheads as well as knives and bronze spearheads were mentioned (Taha 2009). In Masafi-3 a dozen of knives and arrowheads were found in the sanctuary compared to only one in the nearby public building of Masafi-1 (Benoist *in press*: fig. 6). Most of them were not real weapons, but simple imitations of smaller size or with a rounded end. In the Bithnah area, seven arrowheads were scattered in the last two occupation layers of the sanctuary Bithnah-44, whereas only one was collected in the nearby fortress Bithnah-24 (Benoist 2007: 48). At Saruq al-Hadeed, a huge collection of metal objects was associated with copper slag, including dozens of arrowheads, socketed axes, crescent -handled knives, spearheads, baskets, bowls and footed incense burners (Harasheh 2004: 43-59).

Copper or bronze fragments were also found in the columned halls where snake representations were found. In building II at Muwailah, where P. Magee mentions finding more than 2000 bronze fragments. He interpreted it as a bronze–working area and a “place of control and redistribution of valuable goods” among which weapons and other objects in copper and bronze appear to be the most frequent (Magee 2003: 189). At Masafi-1, two jars containing bronze ingots and bronze crucibles were buried in the floor of two successive columned halls, and bronze droplets were collected from a third jar stored in a side room in the same place (Benoist 2009: 11, fig. 8-9; Benoist *et al.* *in press*).
Water and the Snake

With an average annual rainfall of 90-100 mm, the arid margins of the Oman Peninsula cannot be cultivated on a large scale without irrigation, except in few areas benefiting from exceptional conditions. During the Islamic period, until recent times, irrigation in Eastern Arabia was based on the *qanat* technique. According to the traditional local historiography, this technique was introduced to the region by the Persians during the Achaemenid or Sasanian Periods (Wilkinson 1977: 128-130; 1983). The antiquity of the *qanat* technique in Eastern Arabia was suggested for the first time during the early eighties in the Maysar area (Sultanate of Oman) by the discovery of a *qanat* associated with an Iron Age settlement site (Weisgerber 1981: 223, 245; Weisgerber & Yule 1999: 144, fig. 16). It was, however, only in 1991 that W. Yasin al-Tikriti reported the discovery of a subterranean gallery in the al-Aïn region at Hili-15, in direct stratigraphical connection with an Iron Age settlement site (Hili-17), cultivated areas and a fortified building (Hili-14) (Yasin al-Tikriti 2002a & 2002b; Yasin al-Tikriti & Haddou 2001; Yasin al-Tikriti, al-Haj & al-Niyadi 2001).

Since then other *qanats* related to Iron Age settlements have been discovered: at Umm Safah (al-Madam, Sharjah) two Iron Age II bowls were collected from the original excavators’ spoil from one of the *qanat* access wells (Benoist et al. 1997). At Tuqaibah, the surface irrigation channels related with another *qanat* were well dated by Iron Age (Cordoba 2008). At Bida bint-SA’ud (al-Aïn), the excavation of the *sharyah* of a *qanat* has also provided some Iron Age pottery (Yasin al-Tikriti 2002a; Yasin al-Tikriti 2002b: fig.54). At Nahil, at a distance of 45 km from the al-Aïn oasis, a gallery is associated with an artesian well, whose filling included Iron Age pottery (Yasin al-Tikriti 2010: 235-238). In an underground gallery accidentally unearthed in the wadi Bisyah (Sultanate of Oman), were collected potsherds of exclusively Iron Age date (Cremaschi 2007: 31). In total, more than a dozen underground galleries have been dated from the Iron Age or directly associated with Iron Age settlement sites.

All the galleries whose origin upstream could be located were taking water from subterranean water deposits dependant upon wadi flow or superficial aquifers accumulating in small depressions receiving local runoff (*khuras*). Iron Age galleries differ from later Islamic *qanats*, which are deeper galleries catching water from deep aquifers (Boucharat 2001 & 2003). Material collected inside or around the Iron Age galleries and on the settlement sites associated with them suggest a date not older than Iron Age II which means that they are not older than the end of the second millennium or the first half of the first millennium BC. Deeper aquifers may have been exploited from the first millennium AD, possibly under Iranian influence (Boucharat 2003: 168-170).

Exploration of the underground gallery of AM-2 in al Madam reveals a sinuous course (Fig. 9-10). More recently, the unearthing of part of the underground section of the gallery of Hili-15 revealed a similar sinuous course (Yasin al-Tikriti 2010: 231).
A curve had already been recorded in the underground gallery found near the Iron Age site of Muwailah (Mouton 2001: fig.15). In contrast with later qanats, which are straight, allowing workers a sighting-line to work out the slope of the gallery floor, Iron Age galleries seem to have sinuous courses, sometimes with marked angles. The explanation proposed by W. Yasin al-Tikriti is that each section of a gallery was dug simultaneously from wells opened at each end, and to ensure that the two tunnels joined, the direction taken by excavators was deliberately diverted to the same side, so that both sections would always meet at some point; but the open part of this qanat, at its extremity, shows the same sinuosity, where it could be easily have been excavated strait on the ground (Fig. 11).

In any case, the sinuous path appears to be very characteristic of the Iron Age qanats, and strongly recalls the sinuous body of the crawling snakes represented by metal figurines and on pottery vessels found in sanctuaries and meeting places. Whether or not this resemblance was significant is open to question, although it might have played some part in the symbolic imagery associated with the cult of this animal.

Relation between places which yield snake representations and water-supply systems could eventually reinforce the hypothesis of a symbolic relation.

The pottery vessels on which snakes are depicted are either braziers, storage jars or spouted jugs, which might have been used to store or pour water. At Bithnah, small cylindrical pits, walled with stones and mortar, were found associated with the pits containing faunal bones in the central sacred area of the sanctuary. Liquid offerings were probably ritually poured into these cylindrical pits, possibly using spouted vessels found in the same area.

Still in Bithnah, a basin, supplied with water by a canal 30 cm wide, was found in the north-western part of the sanctuary. This canal could be followed for a distance of ten meters and its path curves before being lost to the north. The canal was gently sloping and was covered with a whitish render to facilitate the water flow into the basin, which probably served for ritual ablutions. The source of the water could not be determined and there is no evidence that it was linked to an underground gallery. Local tradition has, however, kept alive a memory of springs to the north of the sanctuary site.

At Masafi-3 the snake sanctuary was erected around 60 m to the south-west of a columned building, which also produced a few snake representations. To the north of these building, the cut-and-cover section of an Iron Age qanat was partly unearthed during the 2010 season. It was carrying water taken from an unknown source somewhere to the east or north-east of the site. The Iron Age canal led to an opening in a stone alignment discovered to the north of the site, which was interpreted as the boundary of the ancient garden area. From this opening, 3 open-air canals diverged north-west and northeast, probably distributing water to several garden areas.

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The columned hall at Bida bint-Sa’ud is the only example of this type of building where no snake representations were found (Yasin al-Tikriti 2002a), but it was directly connected to an opening to an underground water-supply gallery.

Finally, at Saruq al-Hadeed, the only structures associated with snake-decorated pottery and metalwork were two wells around 1 m in diameter (Qandil 2003: fig. 6-A)

The possibility of a relationship between sanctuaries devoted to the snake cult and agricultural areas must be stressed. Masafi and Bithnah are both located in fertile areas and if subterranean galleries have not yet been evidenced, the discovery of surface canals is a strong indication of the presence of irrigation systems and cultivated areas in the vicinity. Rumeilah was one of the villages of the al-Aīn oasis, one of the main agricultural areas of the region at that time, probably supplied by a qanat coming from the east of Hili Garden. In Salut, the sanctuary was erected over a monumental platform built on the top of a rocky hill overlooking the fertile valley of the wadi Bahla. Here, several mounds, located in the vicinity of a network of ancient cultivated fields delimited by low walls of stones or earth, have yielded some Iron Age pottery (site S7/68 in 2007 Cremaschi’s report). In other areas, today desertified, such as Bida bint-Sa’ud, the presence of subterranean galleries suggests some cultivated land in the past: investment of the quantity of work necessary to create qanats would suggest a requirement for irrigation (not restricted to domestic use). The site of al-Qusais, on the north-western lagoon-shore of the Arabian Gulf is the only site where snake representations were found without any ancient cultivated land reported in the vicinity but this may be due to destruction by subsequent urbanization: the mount of serpents was said to be in the center of an important settlement area (Taha 2009: 184).

Close relationships between columned halls and subterranean water supply galleries have been emphasised several times, in view of the fact that the qanat system demanded constant maintenance as well as collective administration of water. In the Arabian tradition the sharing of irrigation water between owners of cultivated land is regulated by a strict and complex code fixed by the community (Wilkinson 1977). Each member of the qanat community has access to a portion of the water, measured by volume or by duration of flow.

The Snake Symbolism

The snake is associated with complex symbolism of many kinds. Sometimes astrological, sometimes as a representation of subterranean forces, the snake appears in most myths, from Genesis to Aztec myths and eastwards in India, China and Japan. Divinities with which it is associated, legends in which it appears, rituals which are practiced around its representations are laden with such a quantity of ideas and symbols that any syncretic analysis appears difficult. We assume that the symbolism
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Fig. 11. The Iron Age qanat at Hili 15 in the al-Ain oasis (Yasin al-Tikriti 2010, fig. 4, with the kind authorisation of the author).
associated with the snake in Eastern Arabia during the Iron Age finds its origins in the cultural background of ancient societies in the Middle East.

We could suppose a close relationship between the rituals of the Oman peninsula during the Iron Age period with the snake deposits attested at Bahrain, but no link can reasonably be found with these practices recently discussed (Potts 2007: 69).

The snake was the guardian of the tree of knowledge in the Old Testament, protector of medicine in Mesopotamia, where he is one of the attributes of the God Ninazû, and provider of vitality in Ugaritic incantations. In The Epic of Gilgamesh it is a snake who steals from the hero the plant that gives immortality, an animal which every year comes back to life in a new skin. Thus the snake was related at that time to knowledge and understanding, and to fertility and vitality.

Through the knowledge which he holds and protects, the snake is the guardian and dispenser of wealth and power gained by the ownership of secrets, the comprehension of hidden processes, inaccessible to the non initiates. It is this understanding of hidden processes which affords dominion over natural resources and their exploitation. According to this point of view, the snake is often linked to the Earth and the primary energies of the subterranean world, a source of treasure but also a source of unpredictable and dangerous forces capable of unleashing chaos (Dhorme 1949: 120; Root 2002: 169). From this perspective the snake is associated with the arts of fire and metallurgy, and it was this aspect which probably linked it to the ritual practices associated with copper and attested in the sanctuaries of the Eastern Arabian Iron Age. This relationship is again found in Timna in southern Jordan, where a gilded snake was collected from the temple of Hathor, built over copper mines (Rothenberg 1972: 152, 154).

Through its links with fertility, the snake is also associated with agriculture and the water which makes it possible. To this attribute can be assigned representations of pairs of intertwined snakes and their association with palm-trees and with horned ruminants, frequently found on Mesopotamian objects and on some bas-reliefs from south Arabia. (Antonini 2004: 88; Audouin & Arbach 2004: fig. 4). The snake is one of the attributes of the Egyptian goddess Remenutet, goddess of fertile land and full granaries, but also protector of new-born babies, who are presented to her during the ceremony when they get their real secret name (Lurker 1980: 100). In Mesopotamia, the snake was also one of the attributes of the God Ninguishzidda, lord of the good tree and god of vegetation (Dhorme 1949: 120).

In considering the snake's association with fertility, the relationship between the snake and water is relevant to this study. It frequently appears in Mesopotamian glyptics, where it is sometimes stylised as wavy lines, which can also be seen as the undulation of flowing water (Amiet 1966: fig. 1284, 1294, 1295). The monstrous snake appearing under the throne of the God Napirisha of Anshân was interpreted by P. Amiet as a symbol of subterranean life and water (Amiet 1988: 78). Snakes are associated with
water spirits on a libation table from Susa dated from the 13th century BC (Amiet 1966: fig. 291). It is during the Elamite period that the snake symbol was most clearly associated with subterranean water and to water springing from and fertilizing the Earth. Inshushinak, tutelary God of Susa, was associated with snake representations on a collection of cylinder seals dating from the second half of the second millennium BC. It appears as a god of fertility related to Earth, not the deep subterranean world of infernal forces, but the one under our feet from where springs the water sources; it embodies subterranean waters which allow plants to flourish and flocks to multiply. Together with the god, the snakes were a symbol of fertility (Miroschedji 1981: 16, pl. I-III). Although representations of Inshushinak with snakes seem to disappear in Elam after the 13th century BC (Miroschedji 1981: 12), the symbolism of the snake in the Eastern Arabian Iron Age could be closely related.

To conclude, a relationship between copper metallurgy and snake representation, and most probably between copper metallurgy and a snake cult in places interpreted as sanctuaries, appears quite well attested during the Iron Age in the Oman peninsula. The relationship between the snake and the water from the subterranean galleries is a hypothesis which appears to us as very likely, but not so clearly evidenced. The column halls seem to be related with the underground galleries supplying water to the irrigated agricultural land. But the indications of ritual practices involving water have still to be confirmed.

The importance of these two essential resources, copper and underground water, in understanding snake symbolism appears to us pertinent in the frame of the south-east Arabian Iron Age society: water fertilises the agricultural land and copper provides weapons, tools and valuable goods. They were taken from the Earth and from the mountains: with the help and protection of the snake, guardian of subterranean resources and dispenser of the mining knowledge? To the snake were offered copper and possibly water. Copper veins were discovered as circumstances dictated although their size was unpredictable. Perhaps their richness depended on the generosity of the snake. Subterranean galleries were the result of considerable labour to catch the water and channel it into cultivated areas. Perhaps the snake was acknowledged as the provider of a regular water supply. Finally, how could we fail to notice any similarity between the snaky snake body so often depicted on the Iron Age objects and the snaky shape of the sinuous subterranean galleries and the copper veins?
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The Snake figuration in Iron Age society


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2. Bronze slag and copper drop analysis were made by S. Pillaut under the supervision of A. Ploquin (CRPG, Vandoeuvre – les Nancy) and C. Le Carlier, (LAM – IRAMAT, Jarville / UMR5060, CNRS, Universities of Belfort, Orléans and Bordeaux), during a Master degree in archaeological and chemical sciences at the University of Dijon, in France.

3. The location of the water source exploited during antiquity remains unsure: sources at Masafi are exploited today for drinking-water, and this collecting point is located around 2-3 km to the north-east of the site. Local tradition asserts that there were springs a few hundred meters to the west of the site during the sixties: thus the location of water sources seems to have moved over time and water extraction probably changed also.
The Qaṣr al-Muwaijʿī: Dīwān of the Āl Nahayyān in the al-ʿAin / Buraimi Oasis

Timothy Power & Peter Sheehan

Introduction

The Qaṣr al-Muwaijʿī in al-ʿAin is the birth-place of HH Shaikh Khalīfa b. Zāyid Āl Nahayyān, President of the UAE. Since 2009 ADACH has been working on a major conservation and development project at the Qaṣr al-Muwaijʿī that will include a permanent exhibition celebrating his life and times. The Historic Environment Department of ADACH has carried out archaeological investigations and monitoring throughout this project, as well as an assessment of the historical sources and archive photographs relating to the site. The results of this work will be presented within the permanent exhibition and will also be published in due course. In the meantime, this paper aims to provide a preliminary overview of the historical background, original function and subsequent development of the fort, with a particular focus on the historical and archaeological evidence for the period of occupation of the fort by the late Shaikh Zāyid b. Sulṭān Āl Nahayyān from 1946-66.

Muwaijʿī is the smallest and most westerly of the oases that constitute the al-ʿAin / Buraimi group around which the modern city has grown. It thus lies at the western edge of the al-ʿAin alluvial aquifer, in an area bounded by two major wādīs, and was originally also watered by one of the aflāj or underground aqueducts which are such a feature of the topography of al-ʿAin. The relationship of the Qaṣr al-Muwaijʿī to the oasis in the time of Shaikh Zāyid was described in 1948 by the English explorer Wilfred Thesiger:

“Muwaiqih (is) one of eight small villages in the Buraimi oasis. It was here that Zayid lived. As we came out of the red dunes onto a gravel plain I could see his fort, a large square enclosure, of which the mud walls were ten feet high. To the right of the fort, behind a crumbling wall half buried in drifts of sand, was a garden of dusty, ragged palm-trees, and beyond the palms the isolated hog’s back of Jabal Hafit about ten miles away and five thousand feet high. Faintly in the distance over the fort I could see the pale-blue outlines of the Oman mountains.”

The Muwaijʿī Oasis is an agricultural estate of the Āl Nahayyān and included a low-density settlement inhabited by the Bani ʿYās, ʿAwāmir and Manāṣīr tribes. Moḥammed al-Fahim gives a rather nostalgic account of the place in his well-known autobiography, which provides a fascinating glimpse into the social life of the
settlement before the advent of oil exploitation:

“My parents had a summer home in Muwayje, near the Al Ain oasis, but I spent the first three or four summers of my life in Sheikh Zayed’s palace with him and his wife and their only son Khalifa... Most of the neighbours in the small village in which we lived were Sheikh Zayed’s men, all of whom travelled with him wherever he went leaving the women and children on their own, sometimes for months at a stretch, to manage the affairs of the house and the village in their absence... Of course I still spent a lot of time in my father’s house and I remember the men of the village gathering in our majlis with Sheikh Zayed presiding and everyone contributing to the discussions that went on. Because the settlement was so small everybody knew, respected and cared for each other. We were like one large family to which all in the village belonged.”

The origins of the settlement appear to go back to the seventeenth and eighteenth centuries AD. Archaeological excavations in the area of the fort revealed some limited evidence for cultivation activity associated with Late Islamic I pottery types (sixteenth to eighteenth centuries), whilst oral history records that the area at one point belonged to a sub-section of the Zawāhir, indicating that the settlement was not an entirely Āl Nahayyān foundation. However it is the Āl Nahayyān shaikhs who are most intimately
linked to the place. Among them was Shaikh Khalifa b. Zayid (the first), who is said to have established the Qasr al-Muwaij'î in the early decades of the twentieth century. Upon his death, the fort passed to his son, Shaikh Mohammed b. Khalifa. The fort under Shaikhs Khalifa and Mohammed already appears to have functioned as a diwan. It was used to distribute financial aid during the economic crisis of 1928, termed 'the year of the (ration) card' or 'year of the catastrophe,' and again in 1939 after the first oil concession was signed. Around the same time as Shaikh Zayid b. Sultân was appointed Ruler’s Representative in the Eastern Province of Abu Dhabi in 1946, he married Shaikha Hasa b. Mohammed b. Khalifa and moved into the Qasr al-Muwaij'î, which served as his official residence and diwan until he acceded to the emirate of Abu Dhabi in 1966. The present head of state, HH Shaikh Khalifa b. Zayid, was born there in 1948. The Qasr al-Muwaij’î therefore represents the dynastic seat and diwan of the Āl Nahayyān in the al-‘Ain / Buraimi Oasis.

Fig. 2 – The gate of Muwaij’î Fort photographed by Thesiger in 1948-49.

Foundation of the Qasr al-Muwaij’î

The fort occupies an area of 4000 m² some 500m to the north of the Muwaij’î Oasis, now separated by the main al-‘Ain to Abu Dhabi road. It originally consisted of a square enclosure (65 x 65 m) with projecting square towers at the north-west and south-east corners and a gate set slightly to the east of centre in the southern enclosure wall facing the oasis. The walls are c. 5 m tall and c. 950 mm thick at the base, and were
provided with a firing platform, crenellations and gun-slots. It clearly had a more than superficial military aspect, described by one British observer around 1950 as “rather forbidding,” and would have provided adequate protection against lightly-armed tribal forces. Archaeological investigations found evidence for a limited number of intramural structures, including some rooms built against the enclosure walls inside the courtyard, and a free-standing suite of rooms facing the entrance. These last have been identified as the diwan of Shaikh Zayid b. Sultan, most likely developed from an earlier core, but their chronology is problematic given the shallow stratigraphy and extensive truncation of the sub-surface remains. Much of the courtyard may have been deliberately left empty, and like other similar buildings in Al-‘Ain and the region, the fort may therefore have been conceived as a sur, or temporary refuge for the surrounding population in times of trouble.

The main residential part of the early fort was probably a two-storey building set internally against the north-east corner of the enclosure, shown in an archive photograph reproduced as Figure 3, an arrangement familiar from other forts such as Jāhilī in Al-‘Ain and Qaṣr al-Ḥuṣn in Abu Dhabi. However, the brick typology used in the construction of the north-east tower is different to that used in both the enclosure walls and the projecting towers, suggesting that it was perhaps a later addition to the fort plan. The archive photographs demonstrate that the tower must have been built before 1948, possibly during the residency of Mohammed b. Khalifa, though this is unclear.

Another key element of the early fort may have been the mosque. The present structure is a recent construction that was restored by the former Department of Antiquities and Tourism in 2004. Archaeological investigations have shown that it stands on the site of at least two earlier mosques, attested in the archive photographs reproduced as Figure 1 and Figure 7. The archaeological evidence suggests the earliest phase of the mosque is contemporary with the foundation of the fort. The location of the mosque, set outside the fort walls to the right of the main entrance, recalls similarly positioned mosques at a number of historic houses in Al-‘Ain.

The exact date of the foundation of Qaṣr al-Muwaijī is unclear. Oral testimony, however, suggests an early twentieth century date. The sign erected by the Department of Antiquities and Tourism at the entrance to the fort stated that “this palace was built by Sheikh Khalifa bin Zayed (the first). Sheikh Mohammed bin Khalifa presented the palace to H.H. Sheikh Zayed bin Sultan Al Nahyan President of the UAE, in the 1940s, then ruler’s representative in the Eastern Province.”

Archaeological evidence for the foundation of the fort is limited to a coin of the Omani Sultan Sayyid Faisal b. Turki (r. 1888-1913) dated to 1897, found in a post hole cutting the same deposit as the foundation trenches for the fort walls. However, it is not certain if this post hole is associated with the foundation of the fort or with the remains of an earlier structure incorporated into the enclosure wall. In either case the coin provides a terminus post quem for the foundation of the fort. Numismatic evidence should be
treated with caution, however, for coins may stay in circulation for a generation (or more) after they were minted. It is perhaps more significant that early twentieth-century visitors to the Oasis, including Zwemmer in 1901 and Cox in 1901 and 1905, did not mention Qaṣr al-Muwaijī, suggesting that the foundation date should be placed sometime thereafter.

There is some slight circumstantial evidence to suggest that the Qaṣr al-Muwaijī may even have been built later still, in the 1920s. It may be significant that a letter dated 1925, now contained in the National Centre for Documentation and Research, from Shaikh Sulṭān b. Zayid (the first), to his wālī in the Oasis inquires as to the number of workmen serving in the aflāj of al-Jāhilī and al-Muwaijī. Of course this might very well simply refer to the cleaning of existing channels rather than the excavation of new aflāj, but it provides a terminus ante quem for the construction of the Muwaijī falaj.

The immediate historical context of the fort foundation is therefore to be sought in the early decades of the twentieth century. This period coincides with the rise of the Third Saʿūdī state. ‘Abd al-ʿAzīz b. ‘Abd al-Raḥmān Āl Saʿūd, known to posterity as Ibn Saʿūd (r. 1902-53), who ejected the Rashīdīs from Riyadh in 1902 and by 1906 had extended his authority through the southern Najd, from which position he drove out the Ottomans from al-Ḥasāʾ in 1913. The supply of arms and munitions to Ibn Saʿūd during the First
World War made the Saʿūdī Ikhwān one of the best equipped tribal forces in Arabia. The conquest of the Ḥasāʾ moreover left the Zafrà once again exposed and al-ʿAin / Buraimi Oasis vulnerable, to the extent that the ruler of Abu Dhabi, Shaikh Ḥamdān b. Zāyid (r. 1912-22), immediately began importing quantities of arms and ammunition. An opportunity for Saʿūdī intervention in the affairs of Abu Dhabi came in 1920, when factional fighting between the Zafrà Bedouin resulted in one of the factions seeking protection of the Saʿūdīs in al-Ḥasāʾ, and another bout of feuding between 1922 and 1925 culminated with a Saʿūdī raid against the Banī Yās.

Throughout this period, Ibn Saʿūd was continuously expanding his kingdom, taking Jabal Shammar in 1921, seizing the Ḥijāz in 1925, and annexing the ‘Asīr in 1926. The appearance in 1925 of a Saʿūdī mission to the village of Ḥamāsā in the al-ʿAin / Buraimi Oasis to collect zakāt caused no small amount of agitation. Delegates from Abu Dhabi, Dubai and the Imāmate of Oman met at Qābil, just south of the Oasis, for the purpose of “strengthening the cord of union and laying down the course of joint action in case anybody attacked the country.” The Saʿūdī nāʾib of al-Ḥasāʾ responded by despatching an indirect threat via the shaikh of Dubai concerning these attempts to defend the oasis: “our brother Sulṭān... does not know we are stronger than him in men and materials... sooner or later our power shall prevail upon him and others.” The situation remained tense throughout the late 1920s. Saʿūdī agents continued to arrive every year between 1926 and 1930 to levy zakāt, until Shaikh Shakhbūṭ b. Sulṭān made an official complaint to the British.

Between 1933 and 1937 ultimately unsuccessful negotiations between Ibn Saʿūd and the British attempted to delineate the borders between Abu Dhabi and the newly created Kingdom of Saudi Arabia (est. 1932), a process articulated through conflicting claims to tribal allegiances and the inheritance of the defunct Ottoman empire. The requirement to define the borders of the new state was given greater urgency by Ibn Saʿūd’s 1933 concession to the Standard Old Company of California, later ARAMCO, of an area for prospection comprising “the eastern portion of our Saudi Arab Kingdom, within its frontiers.” The unresolved issue of the eastern border between Abu Dhabi and the Kingdom of Saudi Arabia was later to culminate in the Buraimi Dispute of 1952-1955.

The Dīwān of Shaikh Zāyid

The present appearance of the fort owes much to Shaikh Zāyid b. Sulṭān, who was Ruler’s Representative in the Eastern Province between 1946 and 1966, during which time the Qaṣr al-Muwaijʿī was his official residence. The architectural development of the fort through this period is shown in a series of archive photographs. Wilfred Thesiger stayed at Muwaijʿī several times between 1948 and 1949, and his photographs capture the appearance of the fort at the very beginning of the modifications initiated by Shaikh Zāyid (Figs. 1 – 4). The photograph of Peter Clayton, a Captain in the Trucial Oman Levies, was taken in April 1955 and shows the changes that were in progress or had taken place by that time. (Fig. 5). An aerial photograph taken by the Royal Air
Fig. 4 – Shaikh Zāyid b. SULTÀN ĀL NAHAYYĀN photographed by Thesiger in 1948-49.
Force (RAF) in 1968 represents the earliest evidence for the post-occupation aspect of the fort (Fig. 6). Finally, photographs taken by the (National) Centre for Documentation and Research (NCDR) in the 1970s, after the fort had gone out of use, show the final appearance of the fort resulting from Shaikh Zāyid’s architectural program (Fig. 7 & 8). Three phases of building work subsequent to the original fort may be adduced from these photographs:

(i) Before 1950 – Figures 1 to 4 show that the north-east tower and the ‘carport’ adjacent to the south-east tower were built after the original foundation of the fort but before 1950. These modifications probably belong to the occupation of Mohammed b. Khalifa and the very first of Zāyid’s numerous alterations to the fort respectively.

(ii) Between 1949 and 1955 – Comparison of Thesiger’s photographs with Clayton’s panorama from 1955 (Fig. 5) shows that dismantling of the upper part of the north-west tower and construction of a two storey suite of rooms abutting its interior had been completed in the intervening period.

(iii) After 1955 – Figure 5 also demonstrates that the main gate of the fort was not remodelled until after 1955. Figures 7 & 8 show the second-floor rooms and balustraded terrace of the north-west tower and the remodelled gate were amongst the last of Zāyid’s modifications. It may be significant that the parapets of both the gate and the terrace employ similar brick lattice work, implying that they were built during a single phase of building. Likewise the use of gypsum plaster on the facades of the gate and the second floor rooms of the tower may indicate they form part of a single phase, to which the photographs suggest the rebuilt mosque also belongs. The same gypsum plaster found on the internal walls of the two upper floors of the north-west tower was also noted in some of the diwân buildings, and similarly may form part of the same final phase of refurbishment of those parts of the fort still in use. The good condition of this plaster in the NCDR photographs, particularly when compared with the condition of the south-east tower, suggests these were modifications that took place towards the end of Shaikh Zāyid’s residence at Muwaijʿī. The same photographs confirm archaeological evidence for a rebuilding of the mosque in this final period (Fig. 7).

(iv) After 1961 – The RAF aerial photograph of 1968 (Fig. 6) shows that the intramural structures of the fort had already been demolished at some point previous to this time, possibly when Shaikh Zayid acceded to the Emirate of Abu Dhabi in 1966.

However, the end of occupation at the Qaṣr al-Muwaijʿī may have taken place in the early 1960s. The marriage of Shaikh Zāyid to Shaikha Fāṭima bt. Mubarak al-Kitbī in 1961 and the provision for her of a new palace – today known as al-ʿAin Palace Museum – perhaps marks the point of departure. It seems that Shaikha Ḥaṣṣa moved into more modern living quarters in 1964. Jocelyn Henderson remembers visiting her in a new house in 1967, suggesting that no one was actually living in the Qaṣr al-Muwaijʿī by that time.
“(It was) little more than a block of grey concrete set away from the souk and the old walled fort (at Muwaijī)... When the sheikha came out from behind the curtain that divided the room into the sleeping and reception areas, she took my hand and proudly showed me around the house room by room. I remember being amazed at seeing a proper bathroom. It was large, with gold-plated taps and porcelain basins. I admit I was envious. Such luxury seemed miraculous.”

Archaeological investigations in the fort courtyard provide further details of life within the diwān of Shaikh Zāyid between 1946 and 66. Rooms abutting the western enclosure wall were transformed into kitchens, and a circular tin tray used for serving food was retrieved from the uppermost occupational layer. A sizeable ash dump was found in the south-western corner of the courtyard, producing quantities of faunal remains during the archaeological work. The diwān complex itself was doubled in size, with two sets of three rooms facing each other across a corridor running parallel to the eastern half of the southern enclosure wall so as to form an internal courtyard leading off the entrance. Thesiger’s description provides a lively account of a majlis held inside the fort, plausibly in the diwān complex:

“We were hungry before we arrived at Zayid’s fort and were looking forward to eating meat that evening... Just before dinner four Banu Yas visitors were brought in to share the meal with us... After dinner the room filled up with Zayid’s retainers, several of whom had falcons on their wrists... The room was packed with people, some disputing over ownership of a camel, others recounting a raid or reciting poetry. The air was thick with smoke from the coffee hearth and from guttering lamps, and heavy with
Fig. 6 – RAF aerial photograph of Muwaijī Fort (upper centre) showing its relationship to the surrounding settlement and Muwaijī Oasis (lower centre) in 1968. The photograph shows that the intramural buildings of the fort, including the north-east tower had been cleared by this. Figure 5 shows that the rectangular enclosure abutting the exterior south-west corner of the fort, not present in Thesiger's photographs, had already been added by 1955.
the pungent reek of locally grown tobacco... A little later Zayid came in, everyone rose, and after we settled down again and Zayid had been served coffee (the majlis got underway).”

Guest rooms were built flanking the gate and opposite the diwan, so that the south-east quadrant of the courtyard appears to have functioned as a reception area for male visitors, well away from the residential blocks of the north-west and north-east towers. In another of his stays at Muwaij'i, Thesiger describes the social life the reception area wherein Shaikh Zayid made himself accessible to his people:

“Late in the afternoon a servant announced that lunch was ready, and we went into the fort. We passed through a wicket into a porch where armed men were sitting on a low earthen bench. A few months earlier they had been at war. They stood up as we came in. Beyond the porch was a sandy courtyard in which there was a tame gazelle and a bull camel that was rutting and dangerous. Zayid showed us into a large bare room on the left of the porch, lit by two small windows at ground-level opening on the yard. Our saddle bags had been brought in, and carpets laid on the earthen floor. Zayid fed with us...”

It seems significant that much of Shaikh Zayid’s architectural program focused on the kitchens, diwan complex and guest rooms of the fort, for taken together these represent the infrastructure for the distribution of largesse. Of course, diyafa (hospitality) and jud (liberality) were traditional Arab values, although they might very often have acquired a political sub-text, since “jealous and often hostile sheikhs relied upon the uncertain support of the Bedu to maintain their position. The sheikhs competed for the support of the tribesmen by the lavishness of their hospitality and the scale of their gifts.” Indeed, the Sa’udi intervention in Hamasa between 1952 and 1955 may have underlined the political relevance of existing systems of patronage. Fahim’s account draws on memories of this period:

“Sheikh Zayed kept in constant communication with the heads of the tribes inhabiting the area... trying to convince them to back the ruler of Abu Dhabi in opposing the Saudis’ claims to Buraimi...”. These efforts were not entirely successful “mainly because the Saudis were feeding everybody by cooking huge pots of food and inviting them for daily meals.”

This domestic policy, if it may be so termed, was complemented by a foreign policy cultivating British support. For their part, the British had cause to strengthen ties with the rulers of Abu Dhabi following the discovery of oil. In 1935 Abu Dhabi signed oil exploration agreements with the British and in the following year the Petroleum Development Trucial Coast Ltd. (PDTC) was formed, with a 75-year concession agreed in 1939 which was however delayed by the Second World War. Then in 1953 the Abu Dhabi Marine Areas Ltd. (ADMA) obtained offshore concessions, providing for the first time an oil revenue to the emirate. The threat of Sa’udi annexation and the promise of oil exploitation bound Abu Dhabi and the British ever closer together. British officials maintained close political and often personal relationships with the rulers of Abu Dhabi
and Oman, and British visitors to the Qaṣr al-Muwaijī now became quite frequent. Anthony Shephard, the Commanding Officer of the Trucial Oman Scouts detachment based at the Jāhili Fort, recalled in his memoirs:

“I went to see him every week at his own fort. He usually treated me with a masterly exposition of local politics. If I came with respect I left with greater respect. He was one of the few great men I have ever met. If we didn’t always agree it was certainly due to my ignorance and grouchiness.”

A new intimacy grew up between the British and the Āl Nahayyān. Edward Henderson, the Political Officer at the time of the Buraimi Dispute, later dedicated his memoirs to Shaikh Zāyid, “as an expression of my gratitude and his friendship and encouragement over so many years.” He recalled a visit to Muwaijī:

“Two days later we called on Sheikh Zayed at Al Muwaiqi fort. This was a rather forbidding square fortress with crenellated towers. To exclude the heat, the rooms inside were necessarily rather dark and had no furniture but the colourful rugs and cushions on the floor... Sheikh Zayed showed a great friendship and cooperation towards us, and we had many pleasant evenings together while we were in the oasis.”

This intimacy extended to private lives. Henderson’s wife Jocelyn later recalled in an interview:
“I certainly built strong friendships with the women. Edward wanted me to get to know Zayed's wife. Of course, there was something (politically) useful in that but I believe he wanted me to find the (personal) rewards he had ... When (we visited Muwaij'i) the sheikha gestured me to sit on her rugs, ... while many bowls of dates and other fruits were brought through ... I even saw her young son, Khalifa ... There were many moments of humour between us, about our husbands, and she was always pleased to see me...”

The policy of cultivating allies was not confined to relations with the British. Thesiger noted the range of visitors welcomed to the fort by Shaikh Zāyid: 

“In the mornings, after we had breakfasted on tea and bread, a servant would come in and tell us that the Sheikh was ‘sitting’. We would go out and join him. Sometimes Zayid would be on the bench in the porch, but more often under a tree outside the fort. He would call for coffee and we would sit there chatting till lunch-time, though we were frequently interrupted. Visitors would arrive, Bedu from the Sands or from Saudi Arabia, tribesmen from Oman, or perhaps a messenger from Shakhbut in Abu Dhabi.”

The function of the Qaṣr al-Muwaijʿī during the residency of Shaikh Zāyid therefore shifted from being a militarily defensive sūr to a Diwān for diplomatic negotiations. The Saʿūdī territorial claims and the climate of 'cold war' with the Āl Nahayyān, of which the Buraimi Dispute is the most well-known example, was intensified by the realisation of the potential oil wealth of Abu Dhabi and the rivalry for its exploitation between the British and Americans. Muwaijʿī now assumed a greater political importance, both
by functioning as a centre for the distribution of largesse amongst the local tribes who formed the power base of the ruler, and by playing host to the representatives of allies important to the survival of the Emirate of Abu Dhabi.30

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1313-14.


Notes

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4 Power & al-Kaabi, 2011: IN PRESS.

5 http://www.ansab-online.com/phpBB2/showthread.php?t=7185

6 Ibn Ḥamm, ND: 89.

7 Henderson, 1999: 42.

8 Zwemer, 1902: 62; Cox, 1925: 207-08.


15 Kelly, 1964: 121.

16 Umm al-Qura (Mecca), 17 Rabi’ I, 1352. Quoted by Kelly, 1964: 122.

17 The photo was taken from a little knoll shortly before the riders arrived for major camel race in the district under His Highness Shaikh Zayid. The photo was taken during the Buraimi arbitration. A couple of days later there was also a horse race from the Jahili fort to Al Ain village. At the time there were also horse races organised by the Saudis south of Jebel Hafit. Clayton’s response was to organise a “donkey derby” for the children of Al Ain with a 10 rupee prize for the winner.


The Qaṣr al-Muwaijī: Diwān of the Āl Nahayyān in the al-ʿAin / Buraimi Oasis

26 Henderson, 1999: vi.
Life in the Trucial Oman Scouts Signal Squadron 1965 - 1967

Hugh Nicklin

Radio Technicians: Ron Wildman and Paddy Wilson in 1966
The lumbering RAF Beverley Transport flew low over the blue waters of the Arabian Gulf heading for Sharjah. It was late September 1965. Although it was not a long flight from Bahrain, the string bag seat was uncomfortable, a temporary arrangement designed for paratroopers. However, my comfort was not a priority: I was a soldier. I had volunteered for two years service in the desert, seconded from the army to the Foreign Office as a signaller in an Arab regiment. I was twenty-one and keen to try out anything that looked exciting and different. The Trucial Oman Scouts proved to be exactly that - exciting and very different.
A familiar face, Chas Mitchell, wearing the smart Arab uniform of the TOS, complete with red and white shemagh, greeted me. The heat here was in complete contrast to the freezing winter we had served together in Lippstadt, Germany. He drove us, in an open top, desert coloured Land Rover, the short distance through the RAF Sharjah camp to the adjoining TOS camp. Here the tarmac road ran out and we bumped over the sand to a single story U shaped accommodation block. I was to share an air-conditioned four man room with Chas and two others, Tom Stirzaker and Ron Wildman. We dropped off my bags then went to meet the OC (Officer Commanding). Major Morris welcomed me then briefed me on the role of signallers in the TOS. We, in the signals squadron, provided the only means of communication across the whole of Trucial Oman. There was no countrywide telephone network and no roads. We also provided a link directly to Bahrain and from there to the rest of the world. All communication was live traffic and, it is no exaggeration to say, often a matter of life and death. If a vehicle set out from here for one of our upcountry bases, we needed to have radio confirmation that it had arrived. If it broke down on the way and no one knew, with temperatures of over 120 degrees (Farenheit) in July, the occupants would soon die of thirst. I was accustomed to handling live traffic. I had used morse comms every day for six months in Borneo. Here I would be a supervisor, and the Arab operators were very skilled, but occasionally I would need to man one of the links.

On the way to look at the Communications Centre, Chas explained it was not just for messages, it was also a centre for parcels and for people wanting a lift to outlying stations such as Abu Dhabi, Masafi, Buraimi or Manama. Inside the Comcen I was greeted with the familiar sound of high pitched morse code and the crackle of static. On a raised area at the back, Arab operators wearing headphones sat at HF radio receivers, fingers resting on morse keys. On one side was the link to Bahrain, on the other the TOS network linking all the outlying stations. There was also a spare position for exercises or whenever another network was needed. Through a little hatch was the crypto room where all messages needing encryption and decryption were passed. Around a corner in another small room was the camp telephone exchange. An Arab operator sat at an old fashioned switchboard, feverishly answering calls and patching them through. Until recently there had been no connections outside camp, not even a line to Dubai, only five miles away. We next went to meet the Electrician Drivers (EDs). There was no mains power outside the base in Sharjah, so all upcountry stations had generators, and these were the men who kept them going. In a shed, banks of lead acid batteries were connected to a large charging unit. This was where all the radio batteries were charged up and taken out with the EDs when they went out to maintain the working generators and fix the non-functioning ones. Our next stop was the radio repair workshop, where most of the faulty radios were brought, but some were repaired out in the field on a Tech Tour.
Ron Wildman in his workshop training an Arab technician

The radio technicians also looked after the D11 transmitter for the link to Bahrain and the C11 for the TOS network. Our last stop was at the Signals Quartermaster’s Stores, a veritable treasure house of rack upon rack of communications equipment. Clearly we were not short of kit.

That afternoon I received my uniform of three grey/blue shirts, shemagh, agal, and a silver khanjar badge. There were brass badges to go on epaulets and a red lanyard. Footwear consisted of Desert Boots and some tough looking and inflexible sandals. Long khaki trousers and a magnificent red stable belt completed an impressive looking outfit and I couldn’t wait to try it on. First, though, it was a visit to the tailors’ to have my single white lance corporal’s stripe sewn on.

On my first day in the Comcen I found being a shift worker had its advantages. No parades and no guard duty. Working weekends and nights, though, was not so good. My first job was on the link connecting Sharjah with the JCC (Joint Communications Centre) in Bahrain, manned mainly by RAF operators, but some Army and Navy too. I put on the earphones, tweaked the RF (Radio Frequency) gain control on the receiver and hit the morse key. The next morning, after a salt water shower, I reported to the Comcen. All was not well. The switchboard operator had gone to the doctor’s and, after a cursory explanation, I was thrust in front of an ancient piece of equipment festooned with a bewildering collection of patch cables, switches and numbered plugholes with an array of small flashing lights. I had never operated one before but successfully patched through the first few calls. I was just getting comfortable with the technology when flashing lights were everywhere. Try as I might, I couldn’t keep up with the urgent requests. The Comms room was equally busy, so no help from there. Eventually, Captain Crouch, the 2i/c (second in command), arrived to see what was happening. Complaints had been made. He ordered that a more experienced operator should take my place and told me to go and get myself a cup of coffee. Afterwards, he set me the less
stressful task of chasing the cable of a faulty telephone extension in the officers’ mess. He suspected I would find a break or that it had been chewed through by rats.

The officers’ mess, a large single story building, was sumptuous compared with our accommodation, which, by army standards, was itself rather good. The mess servant on duty showed me to a black telephone on a table in the corner. It was, indeed, dead. The connections were intact so I followed the cable along the skirting board, then through into the next room. There, abruptly, it went straight up the wall and disappeared into the ceiling. The mess servant seemed somewhat perplexed by my request to get into the roof space, but eventually showed me to a room with a trap door in the ceiling. With the help of a chair balanced on top of a table, I shimmied up through it into the void. It was hot and poorly lit, a mass of rafters, supporting joists and a low, corrugated iron roof. I had to crawl along the narrow rafters on hands and knees. I was sweating heavily in the trapped heat of the roof and filthy with the dust, but carried on until I found the place where the cable came up. Now I could start to trace it. After thirty feet I came to a point near the eaves where the roof space was only about one foot. I was now laying on the rafter, still holding the cable as I inched forward. Suddenly, the piece of wood under my supporting hand, broke away and I lost my balance. I grabbed the rafter, but my legs went through the ceiling. Looking down, I saw I was dangling over a row of cooking pots on a huge stove. Three faces under white hats looked up at me in astonishment. I shouted down my apologies, lamely explaining I was trying to fix a telephone fault. I became aware of something thrashing me around the legs, and hoisted myself back into the roof void. It was a large brass ceiling fan just below me, swinging left and right as well as going round and round. Bruised, battered, filthy and exhausted, I cleaned myself up a little before reporting back to Captain Crouch. The news had already reached him and he listened to my account with a mixture of concern and mirth. Whilst observing that it had not been my best day, he took it in good humour and, gratefully, remembering those open cooking pots, I recommended that he avoid the soup at lunch. Happily, after this inauspicious start, things quickly improved and I became a useful member of the Signals Squadron working in the Comcen and upcountry.
Within a month of arriving I took part in my first upcountry exercise, up near Manama in the mountains. It was to involve the whole regiment and the Paratroops from Bahrain. Fred Howley had kitted out our FFR Land Rover with C11 and C42 radios and we set off on the long and dusty track that linked Sharjah to Manama. There was no road, just multiple sets of tracks etched into the desert sand. That evening, near Manama camp, we attended a briefing, gathered together between parked Land Rovers and Dodge Power Wagons (DPWs). A TOS major and a captain of the resident armoured squadron described what was to happen the next day. The Paras would be dropping on a Drop Zone five miles away. This would be followed by an equipment drop including vehicles and field artillery. The TOS and the armoured squadron would be defending territory against invaders, who would be the first battalion of the Parachute Regiment flying in from Bahrain. The armoured squadron, in their Ferret Scout cars, would engage the enemy supporting the TOS. Heavy armour would be provided by the Hussars, travelling from Fujairah, to support the paras. Umpires wearing white armbands would be deployed throughout to keep score.

At dawn the next day a TOS officer, who would be acting as an official observer, joined us in our Land Rover. Fred and I would provide the communications. We lined up at the edge of the Drop Zone, a flat area below the foothills of the Manama mountains, and waited. The sun was climbing high and it was already getting warm. In our open top vehicle we had excellent all round vision and saw, approaching from the west, two bulbous RAF Beverleys. The side doors were open and, as they lined up their approach, chutes, like a string of brown mushrooms, filled the sky. The
paras landed without casualties and an hour later the Beverleys approached again for the equipment drop. Two platforms bearing lightweight Land Rovers floated down successfully. The third, however, fell far too quickly, the chutes only partially deployed. It hit the ground with a thump, breaking its front axle, and would take no further part. There were no more serious mishaps, and with the paras and the majority of their equipment safely down, the exercise started in earnest.

That afternoon, battle was joined. As an observer vehicle and considered neutral, we were not targeted. For the next hour we gradually made our way down the valley with the paras. Suddenly, events took a disturbing turn. Live ammunition was ricocheting off the rocks around us. This was a supposed to be a simulation using only blank shots...
and thunder flashes. A thunder flash is a simulated grenade, a giant banger firework. The exercise was suspended and we were ordered to take cover while everyone tried to work out who was using live ammunition. Eventually, puffs of white smoke were spotted in the surrounding hills. The local tribesmen had seen the paras drop and started firing on the TOS, and were joining in to support the soldiers in the shemaghs. They had no way of knowing this was just an exercise. Fred found a hollow that gave some cover for the Land Rover, and we waited while representatives were sent up into the hills to explain the situation. Eventually the all clear message was received from HQ and the exercise resumed. That evening we pulled into a rendezvous point for a debriefing and to cook our evening meal. Action would start again the next day.

Promptly at 08:00, we set off and joined the paras who were preparing to advance. Amid the noise of thunder flashes and blanks being fired came the sound of a powerful diesel engine and, in a cloud of dust, a huge Centurion tank rumbled past us, its gun turret pointed towards the TOS. A cluster of paras hitching a ride on the body of the mighty vehicle were hanging on like limpets.

Later that afternoon a message came through that an air attack was imminent and, as observers, we should rendezvous with the FAC (forward air controller). We trundled across the desert at the best speed we could manage under the conditions. It was a
bumpy ride and the radios shook up and down on their dexion racking. Finally, we
drew up beside a lightweight para Land Rover and met the FAC, a cheery captain in
the paras. He pointed out a red and yellow T shape made of cloth panels laid out on
the sand and rocks. Half a mile ahead of the T was the target; a collection of oil drums
representing a tank. He explained that the Hunters would fly in on a fixed compass
course at low level at a fixed speed, then pull up, spot the T and the target ahead,
and release their rockets. This strategy conferred the element of surprise. A real target
wouldn't see or hear the aircraft until the last seconds. The FAC's ground to air radio
erupted into life and the Hunters announced they were on their way. A minute later,
two Mk9 FGA Hunters reared above our heads, with a deafening roar that shook the
Land Rover. They dived towards the target and released their rockets. They scored
a direct hit, but the oil drums didn't explode as, for the purpose of the exercise, the
warheads were made of concrete. They repeated the procedure, using the cannon this
time, then with a farewell waggle of their wings, they were gone. The exercise drew
to a close without further excitement, apart from a thunder flash being thrown into
the back of our open Land Rover while I was busy changing frequency on the C11
radio. The explosion nearly blew me out of my seat. My ears were still ringing as we
returned to Sharjah.

Village headman coming to greet us before the camel patrol

Hugh Nicklin
Six months after my arrival in Sharjah, Captain Dykins, the education officer, organised a camel patrol over the Easter break. We set off early on the Friday morning. The Bedford three ton truck lurched and bumped along the desert track, while the five of us who had volunteered sat in the back and watched the arid scenery pass by. At around noon we drew up at our destination, a collection of Bedouin tents and barasti huts in the middle of nowhere. Captain Dykins told us we were guests in a Bedouin village and were expected to attend a ceremonial meal with the tribal elders. The purpose of our trip was to check on the names of the wells in the area, as there was some confusion on the existing maps, with four being called the same thing, the Arabic for ‘I don't know’. Just then, the village headman approached with a welcoming smile. He was followed by an entourage of Bedouin warriors. He exuded authority and wore a magnificent red headdress. After the usual greetings and responses we were led to a barasti shelter where huge circular aluminium platters were set out on carpets. We washed our hands in a basin arrangement at the edge and were ushered to sit down. I was seated with Captain Dykins, Chas, the headman and two of his tribesmen. Captain Dykins conversed fluently in Arabic with the headman and, although I did not fully understand, it seemed to be about his tribe and then the logistics of the camel patrol and the territory we would be covering. At a signal, servants came in carrying steaming cauldrons of rice and mildly curried vegetables. The rice was piled in the centre of the platter and the vegetables spread around the edge. A pot containing the meat was brought in and the contents spread on top of the rice. It was difficult to tell if it was goat or sheep, but it was delicious. Mint tea followed, served in tiny, delicate china cups. When everything was cleared away the headman stood up and produced a tiny glass phial. With a feather he took a few drops of the perfume and stroked it on the wrist of each of us in turn, speaking a few words of blessing for our journey.

It was then time to meet the camels. None of us had ridden before and the saddles looked a long way up. The camel driver, dressed in white with a white shemagh, made some guttural noises and hissing sounds and the beasts immediately folded their legs and sat down. Captain Dykins translated brief instructions, then mounted his own camel. I followed suit. There wasn't much of a saddle and no stirrups or reins, only a short length of rope. I clung on as I was thrown forward when the back legs stood up then backwards as the front ones stood. When we were all aboard, Ahmed, the leader, made a guttural sound and his steed strode forward. The rest of us followed. Occasionally my camel would bend forward to take a bite of vegetation as we passed, usually prickly camel thorn. Amazing that something so tough could be digested at all. Around mid-afternoon I sensed a change of mood in my camel, a quickening of pace and a sense of urgency. The rest of the camels also speeded up. After another mile, a well came into view. They had smelt water from nearly two miles away and rushed towards it. We filled our water carriers and set off again. After two hours our guide called a halt and indicated this was where we were camping for the night. Our
trip was being catered by Ahmed’s men and they set to work preparing an evening meal that smelt rather good. The days fell into a pattern. We filled out water bottles before setting off each morning and dropped in two pills. One was to kill the bugs and smelt strongly of chlorine, the other was to disguise the taste of the first. Some of the wells we passed were shared by livestock, so it was wise to take precautions.

At breakfast we had chai, hot sweet black tea with mint. In the evening we were served the most delicious Arabic coffee with cardamoms, poured from a brass coffee pot blackened by the fire. No sugar, no milk, but pure aromatic coffee made from freshly ground beans. We came across a large, wild, lactating camel which our guides chased and caught then proceeded to milk. They brought us urns of fresh camels’ milk and urged us to try some. It was warm and creamy, with a strong flavour and our guides considered it a real treat. At night, laying in my sleeping bag, looking up at the heavens was wonderful. I had never seen so many stars, it felt like falling upwards into a sea of tiny lights. And it was so quiet, just the occasional sounds of the camels moving around. Not even the sound of a dog barking in the distance.
Hugh Nicklin aboard his camel

There is a peculiar rhythm and pace on a camel that appears slow and relaxed, but actually covers a lot of ground surprisingly quickly. Our mission to identify the correct names of the wells was not meeting with much success. So far we had come across two of the un-named ones and everyone we asked had said they didn’t know. Nevertheless, we plodded on in the hope and expectation that eventually we would meet someone who did. For now, I was just enjoying the whole experience and coming to understand why, for thousands of years, these unique animals had been the only means of transport that could traverse such inhospitable, arid wastes.

July was probably the hottest time of the year, with temperatures of over 120 degrees Fahrenheit, but I had persuaded the Sergeant Major to allow me to go on Tech Tour with the radio technician and electrician drivers to familiarise myself with the outlying stations. With our Bedford truck loaded with spares and enough food for a fortnight we set off at dawn heading for Manama. Our crew consisted of Steve Cartwright, the radio tech, Mick Wilson, the ED (Electrician Driver), Said Ahmed, an Arab ED (Electrician Driver), and myself. Manama is located in the foothills of the range that separated Trucial Oman from the Sultanate of Oman. It is a dry and rocky environment and was our main infantry training area. Our accommodation was in tents which didn’t have air conditioning but, fortunately, the nights were a
little cooler here inland where there was less humidity. The next day Mick and Said Ahmed were kept busy servicing the generators that provided the power for the camp, including what was required for the radio link. Steve checked the radio equipment but had little to do except replace a faulty headset. Another dawn start and our three tonner headed south, along the dusty track towards Buraimi.

After the washed out colours of the desert, driving into the oasis was a complete contrast, with the dark green of the palm trees, green grass and crops of vegetables growing in small fields. It was busier, too, with people going about their daily business with their sheep, goats, donkeys and camels.
We stayed at Jahili fort, which was quite stunning, brilliant white against the cloudless blue sky. After a few days checking generators and the battery store, and repairing a faulty C13 radio, it was time to move on to Abu Dhabi. A problem with one of the power generators delayed our start and it was after 11:00 with the air temperature well over 100 degrees in the shade when we set off. By 12:30 there was steam issuing from the bonnet of the Bedford and by 13:00 it was boiling furiously. Our only recourse was to drive it to the top of a dune and point it into the wind to allow it to cool down. At 15:00 we set off again, keeping a close eye on the temperature gage. Abu Dhabi came into view a little before sundown.

The Shaikh’s palace was impressive but the rest of the town was a collection of low buildings and barastis. It was nothing like the mass of skyscrapers and green spaces it would become in a few short years. We had to report to the British Political Agent who was the Foreign Office’s representative. His residence was one of the few buildings that looked in good order. We made ourselves as comfortable as we could for the night in a building that served as temporary accommodation for visitors. Next morning we visited the Corniche to see the famous banks overlooking the harbour. At the time there were five of them, huge buildings made of imported stone, marble and glass. They looked very impressive, and quite out of keeping with their surroundings. After the usual checking and repairs to equipment, our next stop was Mirfa Camp. On the way we crossed the famous water pipeline the Shaikh had built.
A group of Bedouin were watering their goats and camels. We waited while they finished then took the opportunity to fill our jerry cans. It was going to be another long hot trek across sand, rocks and sabkha before we reached Mirfa. A young Bedouin lad was curious and came over to us to chat and have his photo taken.

We arrived at Mirfa in late afternoon, a tented encampment on the beach, many miles from anywhere. It was very hot and unbelievably muggy and humid. This was not surprising as there were salt flats for miles, the sea was very shallow here and prone to a high level of evaporation. How the resident squadron coped with this for three months of the summer with virtually no air conditioning was beyond me. There would be work for me to do here. It was hot and humid with a high salt content in the air and consequently there were always things to be fixed. Even though the radios were hermetically sealed there was still corrosion because of the extreme climate. The next morning Steve looked through the maintenance log of the squadron’s radios and checked what needed to be done. While we cleaned off corrosion and identified
and replaced faulty valves, Mick and Said sorted out the generators. In between work periods, we spent our time just chatting together in the tent. The heat didn’t let up and we wore the coolest things available, shorts, swimming trunks or wizrih. Eventually the job was done, the generators were serviced and battery packs topped up.

The radios were also done, except one which we took back to base because it was beyond a field repair. We set off once again and headed back to Sharjah along the coast road. In summer it could be navigated with ease but come winter, with a little rain or an especially high tide, the hard sabkha would be transformed into treacherous quicksand. There had been many an unsuspecting vehicle bogged down by skirting too close to the sea and finding themselves up to their axels and unable to move. Mick had helped pull out a truck on exercise from Bahrain the previous winter, but happily we made it back without incident.

In January 1967, radio technician Cpl Ron Wildman and an Arab driver set off from Sharjah in a Land Rover heading West to Mirfa taking the inland route. It was to be a bitterly cold 8 hour journey. The easier, coastal route was impassable because the sabkha was treacherous after recent rain. What lay ahead of him was a patrol into an inhospitable desert region of Al Dhafrah wherein lay the Liwa oases on the northern edge of the Empty Quarter (Rub’ al-Khali). A line of Dodge Power Wagons greeted him as they pulled into Mirfa camp, our most Westerly outpost. It comprised a row of tents on the beach below a scarp, with khaki coloured desert stretching in every direction except north, where the shallow blue coastal waters and sandbars of the
Arabian Gulf reached out to the horizon. Ron had brought with him a good supply of spare parts and tools to fix the radios but as the C11 and C13 sets were pretty reliable he took on the additional duties of plotting their location each day, using map and compass and taking bearings from three oil drilling fires that were visible for miles, and also checking the fuel and water supplies daily.

The purpose of the Liwa patrol was to look for signs of activity that might suggest infringement of the borders of Trucial Oman. In the past, some of the line of oil drums filled with concrete that marked the border had mysteriously moved, and, indeed, there had been pitched battles over territory in the 1950s around what used to be collectively known as the Buraimi oasis comprising 9 villages, 6 of which belong to Abu Dhabi and 3 to the Sultan of Muscat and Oman. This patrol was looking for evidence of vehicle tracks and winter was the best time, when the sand was firmer and not so prone to obliterating desert winds. All radio communication back to base in Sharjah would be in morse code and encrypted using a one time pad.

Before heading into the Liwa, the line of 5 DPW's stopped at a barasti hut next to a well to pick up their guide, a tall, aristocratic looking, bearded Arab, dressed in flowing brown robes and a white headdress. He climbed into the passenger seat of the leading DPW and they were off. Ron was awestruck by the seemingly endless dunes, like a sea of massive yellow waves. But progress was slow. Even with its huge tyres the DPW struggled in the soft sand, and occasionally they had to let out some air to get a better grip. After six hours they stopped for the night. They had progressed only 11
miles. Ali Obeyd, the signaller, set up his aerial, warmed up the C11 HF radio and tuned it to the frequency of the TOS network. The SITREP (Situation Report) was short and coded, giving only details of the location and progress.

Ali Obeyd sending the daily SITREP in morse code

Ali tapped out the message on his morse key and, when Sharjah had acknowledged receipt, the radio was shut down for the night.

The days sped by but the miles did not. On a good day twenty miles were covered but most were between ten and fifteen. At last a lookout spotted some distinct vehicle tracks and the convoy followed them for a couple of miles, but then they petered out. Following the border they came across the occasional well, but they were very few and far between. The Arab guide had such a feel for the area he was able to lead the convoy directly to them and every opportunity to fill up with water was taken. On the fourth day the dunes appeared to be getting ever bigger as the DPWs struggled upwards to the top of a knife edge ridge. The lead DPW suddenly tipped forward and stopped. One side had been a gentle climb but the other, where the wind had worn it away, was an almost vertical descent. The vehicle’s attempts to go forward did no more than send up great clouds of sand as it dug itself in. After several attempts to get it free, it was decided the only option was to pull it out from below. The guide explained, in Arabic, what the terrain at the foot of this huge dune was like and the best approach. It was a long detour, an excursion of twenty miles, and it took a day and a half before they were looking up the dune at the stationary DPW again. With ropes and steel hawser fed from the winches of the three DPWs line abreast on the lower slope,
two men climbed the dune. They attached the cables to the stricken vehicle and with much care it was winched free and down to the bottom of the dune. On the seventh day more tracks were spotted, but after chasing them across the dunes for a mile, once again they petered out. Disappointed, they pitched camp for the night. Ron reported that fuel was running low and the OC took the decision to head back in the morning. It was raining lightly as they headed out of the Liwa. They said goodbye to their guide who had been so accurate and seen them safely through the wilderness. They had been eight days in the Liwa and arrived back with very little fuel and a day and a half of water, but none of the vehicles had broken down, and neither had the radios.

It was June 1967 when my time in Trucial Oman came to an end. I had volunteered for this posting and the experience had been even more ‘exciting and different’ than I could have hoped. I reflect on it now as the highlight of my nine years with the Royal Signals, not only for the unique experience, but for the camaraderie and the friendships we made. As, in turn, our little group of signallers completed their time with the TOS and went on to other postings, and then into civilian life, we lost touch. Four decades later, with the aid of the internet we tracked each other down. In June 2010, we comprised a group of ten former TOS signalers who met up again at the Royal Signals Association’s weekend in Blandford. The years fell away as we
recounted the stories of our time in the TOS. It was just like old times. On the last morning of the reunion there was a march past on the parade ground, with the band playing. Proudly, we strode out in our red and white shemaghs among six hundred other former signallers. We raised the loudest cheer from the watching crowd, and everyone wanted to know who we were and why we were wearing Arab headdress.

Old signallers march past. The TOS get the loudest cheer


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