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Graves at Mahleya in Wādī ᶜAndām (Sultanate of Oman): a view of a late Iron Age and Samad period death culture

ALI TIGANI ELMAHI & NASSER SAID AL JAHWARI

Introduction

Recent development in the Sultanate of Oman has led to the discovery of several archaeological sites in different parts of the country. The reconstruction of a road connecting al-Muḍaybī with the small village of Mahleya [Maḥlayāᵓ] in Wādī ᶜAndām has revealed the presence of a large burial ground that extends along the banks of one of the wadi's tributaries. Its discovery was accidental and resulted from development activities in Wilāyat al-Muḍaybī. The Ministry of Heritage and Culture (MHC), in cooperation with the Department of Archaeology at Sultan Qaboos University (SQU), subsequently carried out a rescue excavation at the Mahleya site. The aim of the excavations was to rescue the graves in the path of the new road that was being constructed. The team that carried out the salvage excavations consisted of graduates from the Department of Archaeology at SQU: Ali Al Meqbali (archaeologist, MHC), Sultan Al Bakri (archaeologist, MHC), Khalifa Al Rasibi (archaeologist, MHC), Yaqoub Al Rahbi (photographer, SQU), Nasser Al Hinaei (surveyor, SQU), Nasser al-Jahwari (lecturer, SQU), and Ali Tigani ElMahi (Professor, SQU).

The setting of Mahleya

The Mahleya site in Wādī ᶜAndām is located in the Sharqiyah region. Wādī ᶜAndām lies approximately between 22° 45' N and 57° 98' E. It is one of the major wadis that cross Wilāyat al-Muḍaybī for hundreds of kilometres in the Sharqiyah region. Wādī ᶜAndām passes by most of the villages in al-Muḍaybī, runs into the Wādī Ḥalfayn Basin, and reaches the Arabian Sea close to the Ḥijj area in Wilāyat Maḥawt. There are several tributary wadis which join Wādī ᶜAndām. These are Wādī ᵓMuḥarram, Wādī ᵓl-Rāk, Wādī ᶜAyn, Wādī ᵓl-Mayḥah, Wādī Suqṭ, Wādī ᵓl-Jirrī, Wādī Qaᶜīd, Wādī ᵓl-Washal, Wādī ᵓl-Mazāriᶜ, Wādī Kharmāᵓ, and Wādī ᵓl-Fulayj. All of these wadis are dry for most the year, but they provide the only locations with surface and subsurface water in the area.

The natural vegetation in the area of Wādī ᶜAndām includes thorny acacias, in particular *Acacia tortilis* and *Acacia ehrenbergiana*. The mountain wadis form a different zone from the lower levels and desert, although *Acacia*, *Ziziphus spina-christi*, *Pteropyrum scoparium*, *Euphorbia larica*, *Reptonia-Olea* and *Prosopis* sp. extend into this zone as well (Mandaville 1975: 232–233). Mahleya is an oasis located between two wadi banks: the western bank of the Wādī ᶜAndām and the eastern bank of the Wādī Muḥarram (Fig. 1).

The excavations

Wādī ᶜAndām was first visited by the Harvard Archaeological Survey, which recorded a large number of sites ranging from the third millennium BC (Hastings, Humphries & Meadow 1975: 9–55) to the Islamic period (Whitcomb 1975: 123–157). Copper sites were also noted (Goettler, Firth & Huston 1976: 43), and further sites were discovered by B. de Cardi and B. Doe (Doe 1977: 46), as well as by P. Yule (2001: 56). Apart from these surveys, no other archaeological work has so far been undertaken in this region.

The graves of Mahleya are located on the eastern bank of the wadi (Fig. 1). In fact, they are located in an ancient bank of the wadi, formed over time by the continuous process of deposition during the regular floods in the wadis. The graves are dug into the deposited soil of the wadi bank, and this soil is a mixture of sand and fine gravel. This situation allowed the grave-builders to dig deep graves, which in some cases reached almost 2 m in depth. Consequently, excavation was difficult and demanding. The cemetery consists of hundreds of graves extending over an area of about 800 m x 400 m. The Mahleya graves are small, elongated subterranean stone cists with burial chambers for single individual corpses. Similar graves are known from the Wadi Suq and Samad periods. Examples of this type of subterra-

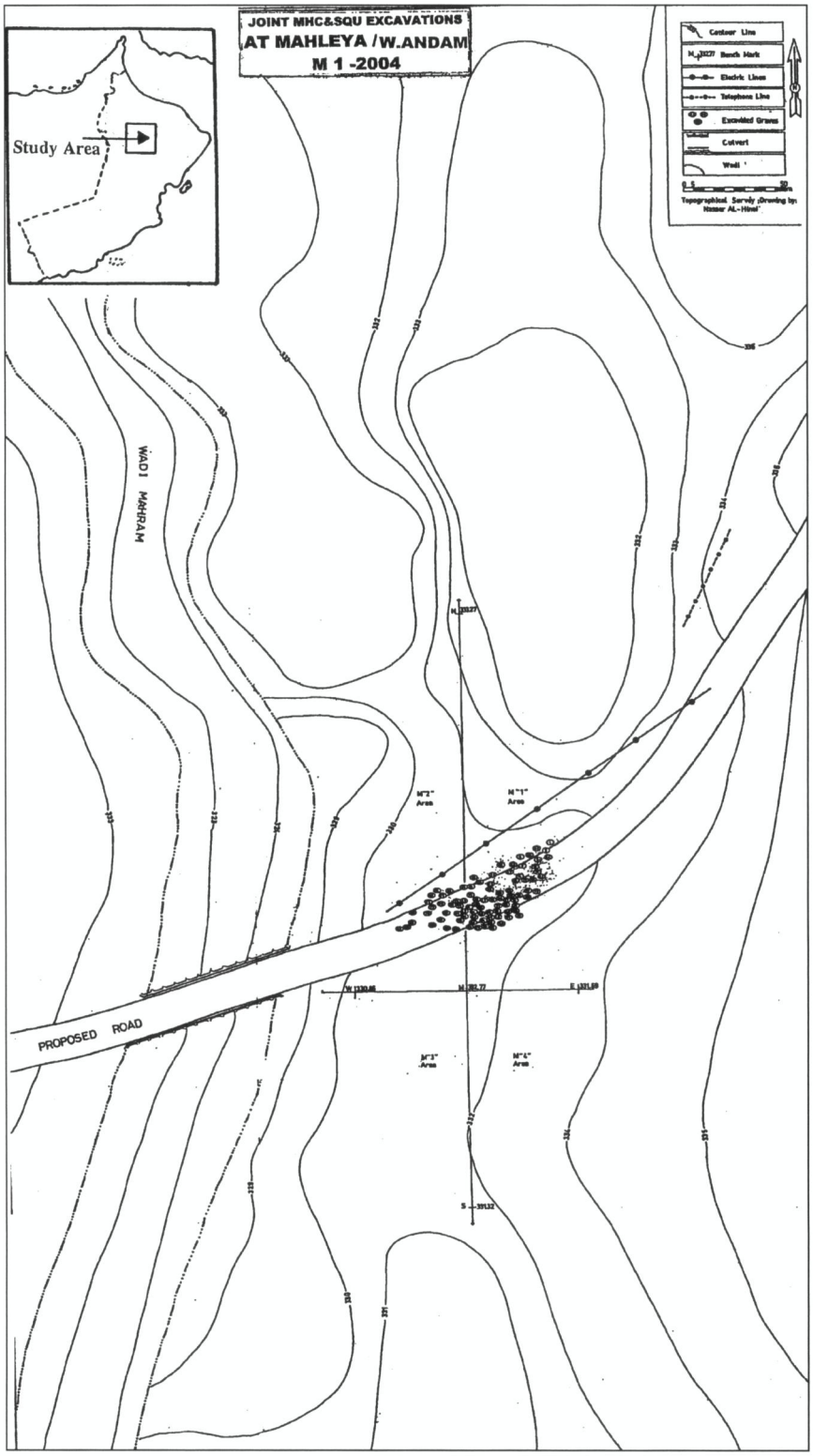

FIGURE 1. *A plan of the cemetery at Mahleya, Wādī ᶜAndām.*

FIGURE 2. *A general view of Mahleya cemetery.*

nean stone cist have been excavated in the Samad area.

The proposed route of the road follows the path of the seasonal track made by the inhabitants of Mahleya and other neighbouring villages. Since this seasonal track cut through the cemetery, the graves in its path have been destroyed by motor traffic in the course of time. Excavations were therefore concentrated in the area flanking its path, an area 24 m in width and 110 m in length (Fig. 2).

Seventy-four graves were excavated. All were simple burials and all were primary graves in the sense that they were not used twice for burial. The condition of the graves and their contents allowed fifty-three of them to be documented. The soil from the graves was sieved to recover the smallest pieces of evidence, a procedure that allowed us to recover many small beads. Of the seventy-four graves excavated, twenty-five (33.8%) belonged to infants, although these had to be identified on the basis of the length and width of each cist, since the moist conditions had badly affected the preservation of both organic and inorganic material, and the poor preservation of the human bone material found in the cemetery precluded its proper identification. Objects made of copper and iron were also badly affected by the moist conditions in the wadi bank. However, excavation did give us a reasonable understanding of the grave structures.

FIGURE 3. *Grave G50.*

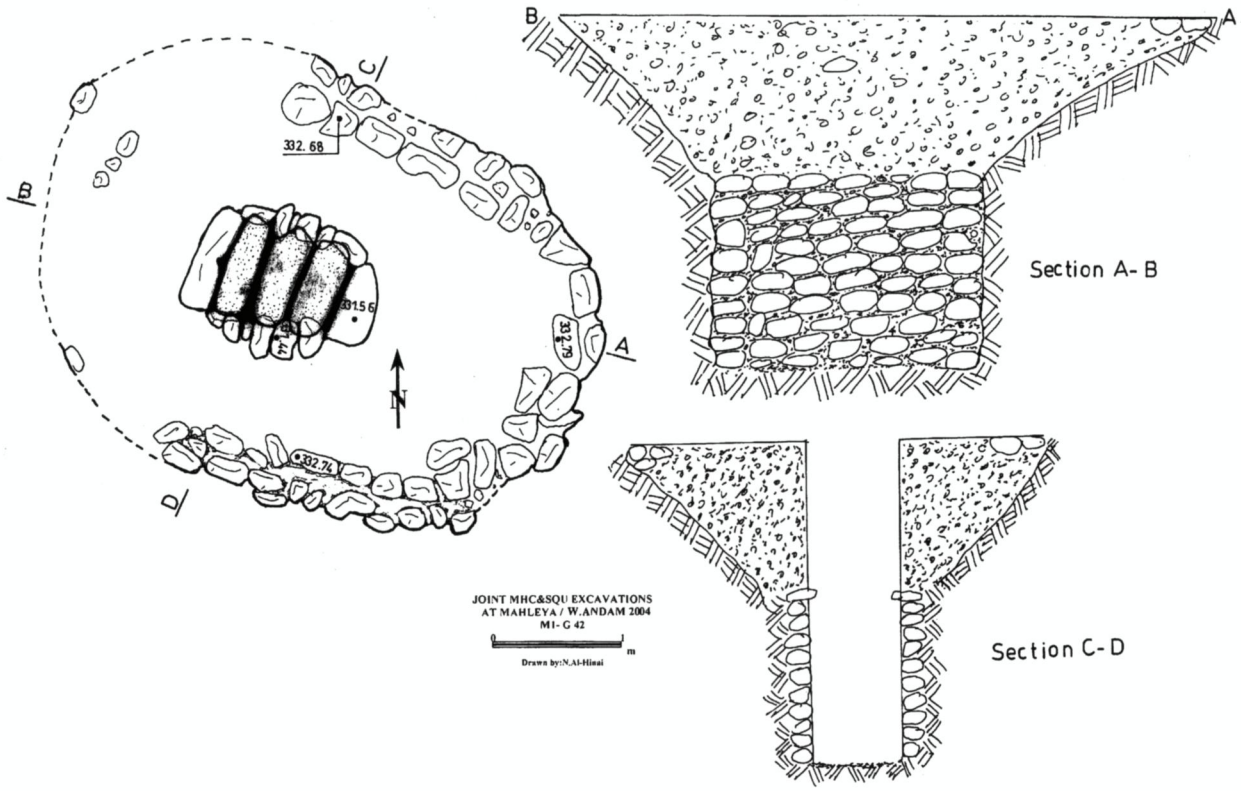

FIGURE 4. *Grave G42: the top plan and section.*

FIGURE 5. *Grave G9.*

Although not all the graves contained grave-goods, we recovered *c.* 700 beads, four incised soft-stone vessels (all from one grave, G10), jars, arrowheads, spearheads, pins, unidentified pieces of iron, ear-rings, shells, bone fragments, and pottery sherds. Unfortunately, in the absence of complete skeletons, this excavated material reveals very little about the burial customs in Mahleya. However, some graves (G50, G60, G74, and G80) yielded skeletal material in a semi-articulated condition. Judging from the position of these samples, one may infer that the skeletons were placed in a squatting (flexed) position (Fig. 3), that is, lying on the right side with the head at the east end, and facing north. Similar evidence of this practice has been reported from several sites (cf. Yule & Weisgerber 1988: 35). The leg bones appear to be in a flexed position of less than 90°.

The poor state of preservation of the skeletons made it difficult to distinguish the sex of individuals although, in some cases, grave-goods and grave size were helpful rough indicators of sex and age. At Samad, the graves of males and females were distinguished on the basis of grave-goods (Yule & Weisgerber 1988: 35), and by their different positions in the grave. In the case of males, the skeleton was in a contracted position, laid on its right side with the head at the east end, facing north. Skeletons of females, on the other hand, were also in a contracted position, but resting on the left side with the head at the south end — although in some cases the north-east was preferred — with the hands placed in front of the eyes (*ibid.* 1988: 35–36). These distinctions were not observed at Mahleya. It seems clear that during that period there were both similarities in burial customs as well as regional differences.

Grave structures

The graves were identifiable on the surface as low mounds of stones, their roof stones usually being some 0.90 m below the surface. The graves excavated showed a great diversity in dimensions, ranging from 2 to 4 m in length, with a width of about 2 m. The chambers varied between 0.40 and 2.20 m in length, between 0.30 and 1 m in width, and between 1 m and 2.30 m in depth. The distance from the chamber floor to the uppermost course of stones varies between 1 and 2 m.

The main characteristics of these subterranean cist graves are: the end walls, the roof with capstones, and the roof support stones. In three cases, we found a "bar wall" directly on top of the capstones. The term "bar wall" refers to a small wall, two stones wide and two courses high, which is placed widthways across the middle of the grave (cf. Yule & Weisgerber 1990: 144). Its function is not clear. The walls of the burial chamber consist of four to six courses of wadi stones, with stones projecting from the uppermost course of the chamber walls to support the roofing capstones in order to decrease their weight on the chamber walls. The long axis of the chambers was oriented east–west, and the height varies from 1 m to 2.30 m (Figs 4 and 5).

Once the deceased had been lowered into the grave, the chamber was roofed with slabs or capstones, and the hole above the capstones filled up with earth. One hundred capstones were unearthed during the excavations. They are slabs of calcareous sandstone brought from a quarry located 3 km from Mahleya. Deposits of calcareous rocks are common in the sediments of the entire geological record of Oman. This type of calcareous sandstone, being in the form of flat slabs and easily quarried, was ideal for use as capstones (see Fig. 5).

Grave-goods

Pottery

Mahleya pottery vessels are handmade, hard and clinky, with wide, medium, and small mouths, thickened everted rims and flat bases (Figs 6 and 7). Comparable examples can be found at Samad (Yule & Weisgerber 1988: 17, fig. 4/1–5; 19, fig. 5/6–9; see also Yule 1993: 147, fig. 5), Rumailah (Boucharlat & Lombard 1985: 55, pl. 47/11), and Sharm (Barker 2002: 34, fig. 28/10, 14). The fabric colours range from yellowish or red to pinkish, with a fair number of red and black grits. Several large storage vessels have a coarser temper. On the other hand, smaller vessels such as bottles and pitchers are made of fine clay with slightly everted rims. Some of these vessels have small and medium pierced handles or lugs.

The vessels vary in shape and size and can be rounded, carinated, globular, bellied, cylindrical or stretched. There are a number of different types of vessel, including large open-mouthed storage vessels, storage jars with an articulated neck, small bottles, *balsamaria*, perfume bottles, elongated and bellied pitchers, bellied vases, as well as suspension jars and bottles.

The necks are generally narrow and high. Rim shapes vary between necked jars with everted rims and with a flaring or band-like rim. In some vessels, the rim is pinched to form trefoil lips suitable for pouring.

The handles are made of one or more coils, fixed at two points, generally on the neck and the body. The section can be elongated or twisted with one or two strands. Other small jars and bottles or pitchers have

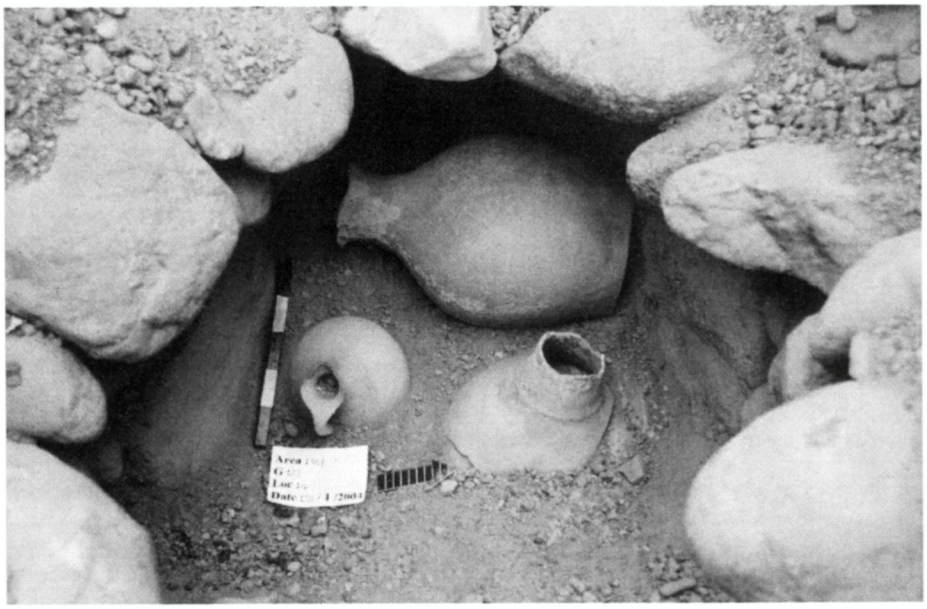

FIGURE 6. *Grave G12.*

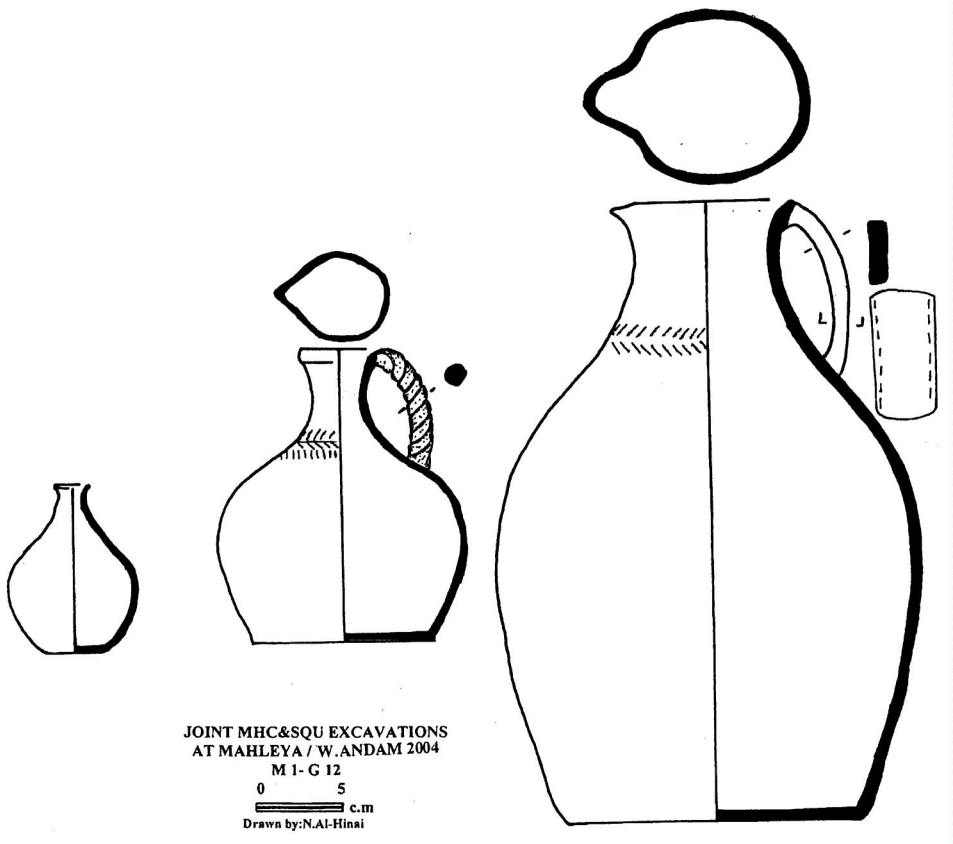

FIGURE 7. *Pottery vessels from grave G12.*

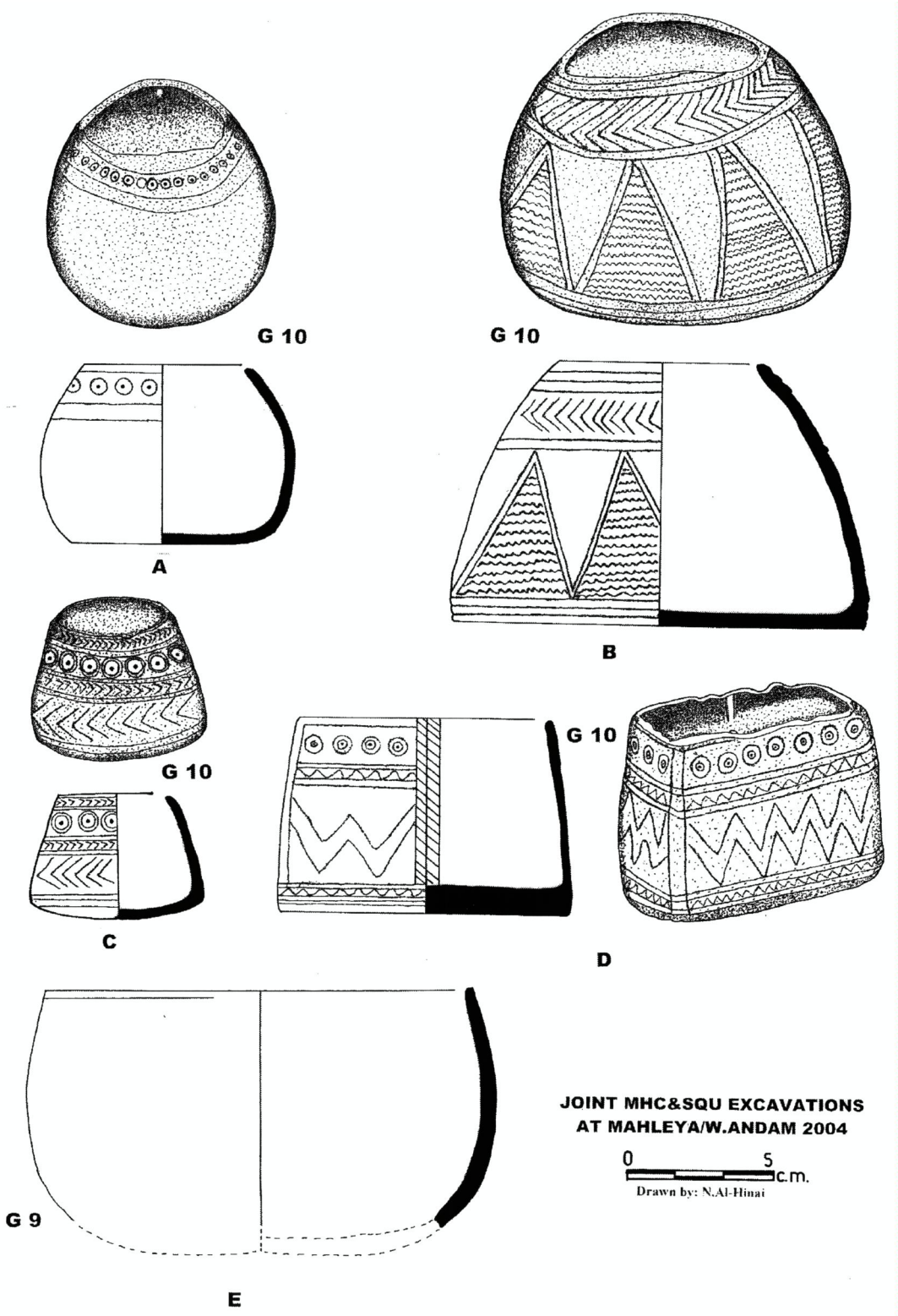

FIGURE 8. *Soft-stone vessels:* **A, B, C,** and **D** *from grave G10*; **E** *from grave G9.*

two pierced lugs fixed horizontally on the body for holding the vessel or for hanging it up.

Incised decoration can be found on most of the Mahleya grave pottery. Most of the vessels were decorated on the upper and lower parts and on top of the rims and handles, with incisions in herring-bone and single or double wavy lines. The horizontal ridges which are occasionally found on the shoulders or on the bodies of large jars have sometimes been deliberately incised (cf. Boucharlat & Lombard 1985: 55, pl. 47/11). These incisions include criss-crossed lines or oblique strokes. More frequent types of decoration on Mahleya vessels are the herring-bone pattern and wavy lines. Other jars are surrounded by parallel raised clay or applied bands to strengthen the vessels and facilitate lifting them (cf. ElMahi & Ibrahim 2003: 89). These bands usually have incised decoration of crossed wavy or oblique lines. Some pitcher handles show simple gouged vertical dashes and in some examples punched motifs (cf. Yule & Kervran 1993: 92, fig. 12/3; Yule & Weisgerber 1988: 17, fig. 4/2, 4).

The moist conditions produced a thin crust on the surface of jars adjacent to the floors of the graves.

Soft-stone vessels

Four complete soft-stone vessels were found in grave G10 (Fig. 8/A, B, C, D), and almost half a bowl from grave G9 (Fig. 8/E). The vessels from grave G10 are of three different shapes: a suspension vessel (Fig. 8/A), two barrel-shaped vessels (Fig. 8/B, C) and a rectangular box with two compartments (Fig. 8/D). The one from grave G9 is a large half-open vessel (Fig. 8/E). The four complete vessels from G10 have straight rims, while the rim of the bowl fragment from G9 seems to be everted, in comparison with those from G10. The bases of the vessels are convex, except for the suspension vessel, which has a flat base and two perforated sides. The Mahleya soft-stone vessels do not have any protuberances. The four complete vessels from G10 (Fig. 8/A, B, C) bear incised decoration of herring-bone, horizontal and diagonal lines, zigzag and wavy lines, and rows of dotted single or double circles. They are of a light grey colour except for the small barrel-shaped vessel (Fig. 8/C), which is brownish. The surface of the fragment from G9 is burnished and very shiny. All the vessels bear traces of fire on their bases.

Metal objects

During the excavation, a total of twenty-one graves yielded some ninety-seven iron and copper objects and metal fragments. Among these were seventy-four iron arrowheads (e.g. Fig. 9), nine iron spearheads (e.g. Fig. 10), six ear-rings (three copper and three iron), seven rings (three copper and four iron) (Fig. 11), one iron pin, and miscellaneous fragments of iron. The most common finds were arrowheads and spearheads.

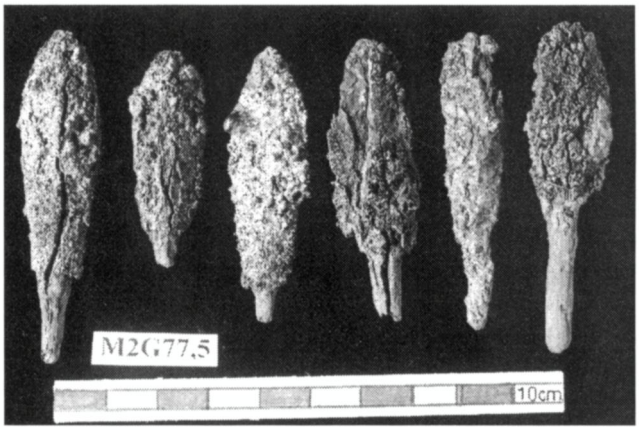

FIGURE 9. *Iron arrowheads from grave G77.*

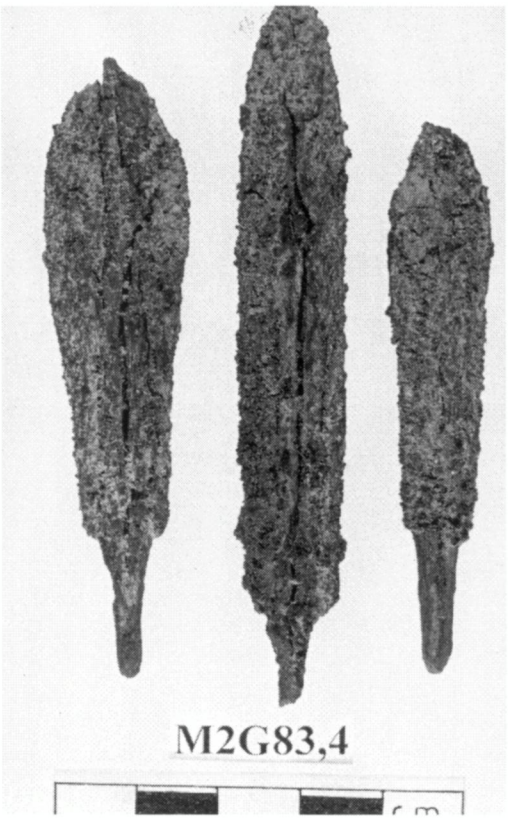

FIGURE 10. *Iron spearheads from grave G83.*

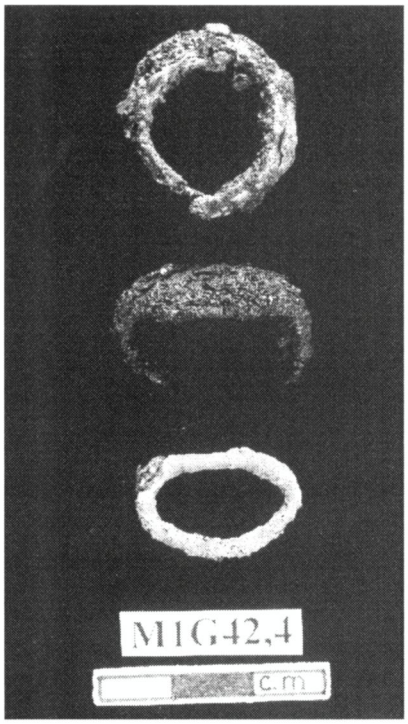

FIGURE 11. *Copper and iron finger-rings from grave G42.*

All these iron and copper objects were badly corroded as a result of the high levels of moisture in the graves. Dealing with material in this state is problematic, and very often the fragmentary condition and heavy corrosion preclude the identification of the original shape of these objects (cf. Yule & Weisgerber 1988: 26), and thus comparisons with similar iron objects recovered from neighbouring areas. This situation makes it very difficult to identify whether an object was locally made or imported.

The relatively large number of iron objects unearthed at Mahleya form a pivotal element in the chronological evaluation of these objects and their context. So far, not a single grave in the Oman Peninsula has yielded iron objects from the first half of the first millennium BC, and thus the presence of so much iron in the Mahleya graves might suggest that they are of a "Hellenistic" date (c. 400-100 BC).

Arrowheads

Approximately seventy-four iron arrowheads were retrieved from the Mahleya graves. They are badly corroded so it is hard to identify their exact characteristics, but there seem to be both short and long examples, leaf-shaped or lanceolate, with a midrib and a square-sectioned tang (Fig. 9). They are heavier than the bronze arrowheads of the preceding periods. Similar iron arrowheads have been reported from excavations at Samad (Yule & Weisgerber 1988: 26). These range from 7 to 10 cm in length and weigh from 10 to 19 gm. The Mahleya arrowheads range from 7 to 19 cm in length. As a result of the high corrosion, no incised decoration can be identified, and most of these arrowheads had lost their tangs, except for a few better preserved examples.

Parallels of these iron arrowheads can be found at Mleiha and ed-Dur. Potts notes the discovery of iron arrowheads at Mleiha and compares them to finds from the graves in the Wadi Samad and on Failaka (Potts 1990, ii: 268). The site of Mleiha is dated to between 220 and 180 BC.

Spearheads

These too were heavily corroded and fragmented, and it is therefore difficult to describe their general features beyond saying that those in grave G83 (Fig. 10) seem to be simple iron spearheads with a midrib. Their bad state of preservation does not allow stylistic comparisons with examples from the surrounding areas, although those recovered from Samad graves (Yule & Weisgerber 1988: 26) and from Mleiha (Potts 1990, ii: 268) might be comparable.

Other metal objects

Ear- and finger-rings were the most common objects of ornament within the grave-goods. There are six ear-rings: three of copper and three of iron. In addition, seven finger-rings were found in four graves: four of iron (G41, G50 & G42) and three of copper (G3+4 & G42 (Fig.11). Comparable ear-rings and finder-rings are reported from Samad graves (Yule & Weisgerber 1988: 26) and the Bidya Hellenistic grave (al-Tikriti 1989, plate 77, A-B). Only one iron pin was recovered from Grave G3+4. The pin is 90cm long and has a semi-pyramidal head, i.e. it does not have a polygonal base, but its sides meet at a common vertex.

Beads

Fifteen of the Mahleya graves produced no fewer than 900 beads of different shapes, sizes, and colours, which had been used as personal ornaments for the dead. They were all pierced through their centre and were of various forms: globular and semi-globular, disc-shaped,

barrel-shaped, spherical and cylindrical, as in grave G10 (Fig. 12), with the spherical and disk shapes being the most common. Their sizes vary between 3 mm and 14 mm, with a few much larger examples, such as the tubular light red carnelian bead from G10, which is 3 cm long.

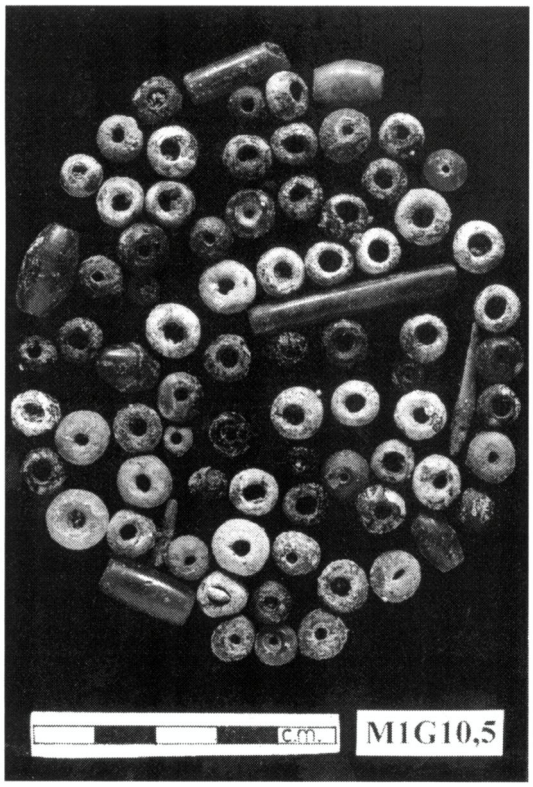

FIGURE 12. *Beads from grave G10.*

In colour, these beads range from light red to deep blood-red, and sometimes to brownish red, dark brown, green, blue, grey, red, yellow, white, and pink. Some beads are etched, white on red, including three found in grave G39. One of these is a grey stone bead incised with small white vertical lines or hatching, and the two others are globular with a diameter of around 1 to 2 cm. Similar white-etched carnelian beads were found at Gr.3018 at Samad (Yule & Weisgerber 1988: 29, fig. 9/10). Some of these beads are white to cream in colour, and others are grey or light brown.

Carnelian seems to have been the preferred material, probably because of its quality, shine, and colour. Other materials included agate, garnet, frit, gold, quartz, and shell, while a large number of small spherical beads (maximum diameter 1–3 mm) were made of a dark grey stone. Three golden beads were found: two spherical examples (*c.* 3 mm in diameter) from G38 and G10, and one cylindrical (also *c.* 3 mm in diameter) from G3+4. L. Weeks (2000: 180) notes that gold items, although uncommon, are known from a number of second- and first-millennium funerary and settlement contexts in the Oman Peninsula.

Other items

Only a few pendants, used as personal ornaments, were found in the Mahleya graves. These came in various shapes and sizes, the most common being triangular. Grave G74 produced a shell pendant in the form of an irregular triangle with a hole through its top. Grave G80 yielded a pendant made of rough stone, rectangular in shape, broad at the top and narrow at its lower end, with a hole through its middle. A comparable pendant was discovered in a Hellenistic burial at Bidya 1 (cf. al-Tikriti 1989: 107, pl. 77/c). An unusual pendant was found in grave G42. This is a brown elongated bead, probably of clay or frit, with an iron piece attached through a hole at the top.

The marine shells

Mahleya is located hundreds of kilometres from the sea, with Jaᶜlān Bānī Bū ᶜAlī being the nearest point on the coast. In spite of that distance, the inhabitants of Mahleya clearly had a strong interest in sea creatures. Marine shells, including both gastropods and bivalves, were well represented among the grave-goods in some of the graves.

In grave G2, specimens of *Marcia ceylonensis* and *Chlamys* sp. were recovered. *Marcia ceylonensis* is known to inhabit mangroves and sheltered waters (Smythe 1983: 59). *Chlamys* sp. is usually found amongst rocks close to the shore in the Gulf of Oman and Maṣīrah (Bosch *et al.* 1995: 230). Grave G38 yielded four specimens of *Umbonium* sp. This species has a habitat characterized as being intertidal and sandy. It is common in the Gulf of Oman, the north-western Gulf, south-eastern Oman, and the northern Gulf (*ibid.* 1995: 36). A single specimen of *Cypraea annalus* was also noted. This is commonly found under rocks in the Gulf of Oman as well as in different parts of the Arabian Gulf (*ibid.* 1995: 72). One specimen of *Polinices* sp. was recovered from grave G10. This had been abraded and modified.

Marine shells must have had some importance in the spiritual life of the inhabitants of Mahleya. Such marine species have been widely used by ancient and traditional societies from very early times. Up to the present day,

beliefs and ideas are still symbolized by these marine organisms in many traditional societies, even those whose environment has no relationship with the sea or the ocean.

Human osteology

Human osteological material is usually found in a poor state of preservation in burials affected by moisture. The Mahleya graves were cut deep into the loose fine soil and gravel deposits of the wadi bank, and this must have allowed considerable amounts of moisture to penetrate them. These conditions clearly had a devastating effect on the preservation of human skeletal material at the site. We attempted to remove two complete skeletons (graves G50 and G80), but even these were in a very poor condition and the bones simply disintegrated during their removal.

The human skeletal material retrieved from Mahleya is therefore poor in both quantity and quality. The bone fragments unearthed can hardly be identified, and thus estimations of age and sex have not been possible. The sex of the occupant of each grave was determined simply by the size of the grave and by the goods it contained. Only in the case of G38 was it possible to determine the age of the individual. The occupants of the remaining graves were labelled as adults simply on the basis of the grave size.

Palaeopathology

The shape, structure, and composition of teeth are all factors in their preservation. Teeth have irregular shapes and are primarily composed of dense and hard material. Enamel, dentine, and cement vary in hardness and constitute the main substance in teeth (Cornwall 1968; Grant 1999). In comparison with other parts of the human skeleton, teeth often survive conditions that destroy bone material.

The sieving of the soil in grave G42 resulted in the recovery of a second premolar and a first molar of an adult. The deceased was male, as indicated by the grave-goods: twenty-seven arrowheads and two spearheads. The second premolar clearly exhibits caries on the side of the tooth. As the tooth exhibits no other evidence of decay, the caries were most probably in an early stage. Similar evidence of caries is attested at Samad (Paul Yule, personal communication, July 2004). Periodontal disease and dental caries are usually identified as the main diseases that affect the condition of human teeth. Periodontal disease indicates poor mouth hygiene and a deficiency in the diet of a human group. The acids converted from sugar by certain bacteria (plaque) attack the enamel of the teeth until they reach the tooth nerves and set off further complications (Filer 1995: 96–98). The occurrence of caries in the tooth of an adult male is not surprising. Dates, bee honey, and wild fruits, such as *Ziziphus spina-christi*, would have been potential and handy sources of sugar in the diet of Mahleya's inhabitants.

Zwainah grave (G38)

This grave is a small, elongated, subterranean stone cist forming a burial chamber for a single corpse. The roof stones were some 90 cm below the surface. The chamber is lined with wadi stones and is 1 m long, 0.50 m wide, and 1.20 m deep. Its roof capstones were found *in situ*. The two end walls and roof support stones of the grave chamber are intact. The chamber's long axis is oriented east–west.

No complete skeleton was found, although we did recover a number of teeth from a girl. The grave also yielded around 300 cylindrical and spherical beads, red, green, black, blue, and white in colour. One was made of gold, and the rest of carnelian and an unidentified stone. The grave also contained two iron ear-rings, shells, and one complete jar.

Grave G42

This grave is also a small, elongated, subterranean stone cist forming a burial chamber for a single corpse. The roof stones were some 0.85 m below the surface. The chamber is lined with wadi stones and is 2 m long, 0.80 m wide, and 2.30 m deep. Its roof capstones were found *in situ*. The grave chamber's end walls are intact as are its roof with capstones, cantilever stones, an uppermost chamber course, and roof support stones. The chamber's long axis is oriented east–west.

No complete skeleton was found. However, it is clear from the large number of iron arrowheads and fragmentary spearheads that this was the grave of a man. The grave also contained two large complete jars, one cylindrical and one globular, fragments of worked shell, and approximately twenty-two circular and cylindrical pierced beads, as well as two copper rings and one iron ring.

Discussion

The survey of Mahleya indicates that occupation of this area extends over a long period. Hafit cairns (late fourth millennium BC) are located on the mountains east of the

village, and a large number of Hafit and beehive tombs are spread along the al-Ṣafrāʾ mountain range on the eastern bank of the Wādī ʿAndām. In addition, numerous Umm al-Nar tombs were noted about 1 km south of Mahleya. On the other hand, *c.* 800 m east of the village there are fields dating to the Islamic period, possibly to the last few centuries, while Islamic cemeteries are adjacent to each of the villages along the wadi. The occupation history of the villages on both banks of the Wādī ʿAndām and surrounding Mahleya village, can thus be dated to between the fourth millennium BC and the late Islamic period.

The pottery vessels found in the graves of Mahleya appear identical to those discovered in Samad graves. This has been confirmed by comparing them with the Samad pottery stored in the Department of Antiquities at the Ministry of Heritage and Culture in Muscat. The large numbers of iron objects can be paralleled at other archaeological sites such as ed-Dur and Mleiha, where numerous iron objects were found within Hellenistic contexts. Archaeological evidence from the Oman Peninsula indicates that iron was not widely used until the second half of the first millennium BC, in particular towards the end of the Iron Age, and that the iron industry developed more during the Hellenistic period, between about 350 and 100 BC (Boucharlat & Lombard 1985: 60; Potts 1990, i: 383; Magee 1998: 114–115; Weeks 2000: 184–185).

In the case of Mahleya, the date of the iron-working industry and the pottery evidence seem to be at variance, but this might be explained as follows: funerary pottery is reported to be more homogeneous than settlement pottery (Yule & Kervran 1993: 75–79), i.e. the same types of vessels are used in funerary and burial practices over a long time period. It is possible that funerary practices at Mahleya dated from the last few centuries of the first millennium BC, i.e. within the Samad period (350 BC to 100 BC). Since the factors responsible for continuity or discontinuity of socio-religious practices in human societies usually result from human belief and behaviour, they seldom show up in the material evidence and therefore are difficult to gauge in an archaeological context.

Any conclusions drawn from grave-goods in prehistoric tombs must remain inconclusive. The death culture of the Iron Age cannot be completely understood from the Mahleya material. A wide range of excavated Iron Age graves and sites is urgently required to allow a clearer and more detailed picture of death culture during that period in Oman's history.

References

Barker D.
2002. Wadi Suq and Iron Age Period Ceramics from Sharm, Fujairah (U.A.E). *Arabian Archaeology and Epigraphy* 13: 1–94.

Bosch D., Dance S.P., Moolenbeek R.G. & Oliver P.G.
1995. *Seashells of Eastern Arabia.* Dubai: Motivate Publishing.

Boucharlat R. & Lombard P.
1985. The Oasis of Al-Ain in the Iron Age: Excavations at Rumeilah 1981–1983, Survey at Hili 14. *Archaeology in the United Arab Emirates* 4: 44–73.

Cornwall I.W.
1968. *Bones for the Archaeologist.* London: Phoenix House.

Doe D.B.
1977. Gazetteer of Sites in Oman, 1976. *Journal of Oman Studies* 3: 35–58.

ElMahi A. & Ibrahim M.
2003. Two Seasons of Investigations at Manāl Site in the Wādī Samāyil Area, Sultanate of Oman. *Proceedings of the Seminar for Arabian Studies* 33: 77–98.

Filer J.
1995. *Disease.* London: British Museum.

Goettler G.W., Firth N. & Huston C.C.
1976. A Preliminary Discussion of Ancient Mining in the Sultanate of Oman. *Journal of Oman Studies* 2: 43–56.

Grant J.C.B.
1999. *Grant's Atlas of Anatomy*. (Tenth edition, edited by A.M.R Agur & M.J. Lee). London: Lippincott, Williams & Wilkins.
Hastings A., Humphries J.H. & Meadow R.H.
1975. Oman in the Third Millennium BCE. *Journal of Oman Studies* 1: 9–55.
Magee P.
1998. New Evidence of the Initial Appearance of Iron in Southeastern Arabia. *Arabian Archaeology and Epigraphy* 9: 112–117.
Mandaville J.P. Jr.
1975. Plants. Pages 229–267 in *Journal of Oman Studies: The Scientific Results of the Oman Flora and Fauna Survey 1975 — Special Report*. Sultanate of Oman: Ministry of Information and Culture.
Potts D.T.
1990. *The Arabian Gulf in Antiquity*. (2 volumes). Oxford: Clarendon Press.
Smythe K.
1983. *Seashells of the Sultan Qaboos Nature Reserve at Qurm*. Singapore: International Press.
al-Tikriti W.Y.
1989. The Excavations at Bidya, Fujairah: the 3rd and 2nd Millennia BC Culture. *Archaeology in the United Arab Emirates* 5: 101–114.
Weeks L.
2000. Metal artefacts from the Sharm tomb. *Arabian Archaeology and Epigraphy* 11: 180–198.
Whitcomb D.
1975. The Archaeology of Oman: A Preliminary Discussion of the Islamic Periods. *Journal of Oman Studies* 1: 123–157.
Yule P.
1993. Excavations at Samad al-Shan 1987–1991: Summary. *Proceedings of the Seminar for Arabian Studies* 23: 141–153.
2001. Recently Discovered Bronze Bowls from ᶜAmlah, al Zahirah province and the late Pre-Islamic Cultures of Oman. *Baghdader Mitteilungen* 32: 255–287.
Yule P. & Kervran M.
1993. More than Samad in Oman: Iron Age Pottery from Suhar and Khor Rori. *Arabian Archaeology and Epigraphy* 4: 69–106.
Yule P. & Weisgerber G.
1988. *Samad Ash-Shan: Excavation of the Pre-Islamic Cemeteries: Preliminary Report 1988*. Bochum: Selbstverlag des Deutschen Bergbau-Museums.
1990. Samad Ash-Shan, Sultanate of Oman, 1989 — Abstract. *Proceedings of the Seminar for Arabian Studies* 20: 141–144.

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