

# One woman and her dog: an Umm an-Nar example from the United Arab Emirates

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## Introduction

Since the initial discovery of an Umm an-Nar type tomb in 1958, these structures are now well documented throughout the Oman Peninsula (1). While all Umm an-Nar tombs exhibit a uniqueness in size, as well as layout and orientation of internal chambers, it is recognised that essentially the tombs are similar in basic architectural design (ie 'circular, stone tombs faced with finely-masoned ashlar blocks') (2). It is also assumed that the burial practices were fairly uniform across the peninsula. It is believed that individuals were buried in the tomb until there was no room left, at which point the bodies were either pushed aside to make room for more, or they were removed, cremated and re-interred (3). While articulated individuals as well as articulated parts of bodies have been recovered (for example from Tell Abraq (4), Unar 1 (5), Unar 2 (6)), such practices result in the majority of human remains from Umm an-Nar tombs being disarticulated and often fragmentary. While faunal remains have been documented in these graves (7), the recent results of excavation undertaken of an Umm an-Nar grave (Unar 2) in the Emirate of Ras al-Khaimah provide a window into certain relationships between humans and animals in the past.

Unar 2 is located in the Shihuh village of Shimal North, at the foot of the Hajjar mountain range, about 200 m south of another Umm an-Nar tomb (Unar 1) (8) in the Emirate of Ras al-Khaimah (Fig. 1). The tomb (Fig. 2) is unique because of its size (c.14.5 m in diameter), making it the largest tomb yet discovered in the Arabian Peninsula. Two seasons of excavation in 1997–98 have provided a vast quantity of human skeletal remains (both articulated, disarticulated, cremated and unburned), some faunal remains, as well as shells and grave goods. Preliminary assessment of the ceramics and beads suggests the site is typical of the late Umm an-Nar period (although not the latest), about 2300–2100 BC (9).

## The Dog Burial

Although faunal material was recovered during both seasons of excavation, this tended on the whole to be disarticulated and fragmentary (Table 1). However, during the second season of excavation at Unar 2 the skeleton of an articulated dog was recovered in Chamber D to the southeast of the tomb. The dog was mostly complete with the fore and hind limbs still being visibly in articulation (Fig. 3). The hind limbs appeared to have been pulled

Fig. 1.  
The United Arab Emirates showing sites mentioned in the text.

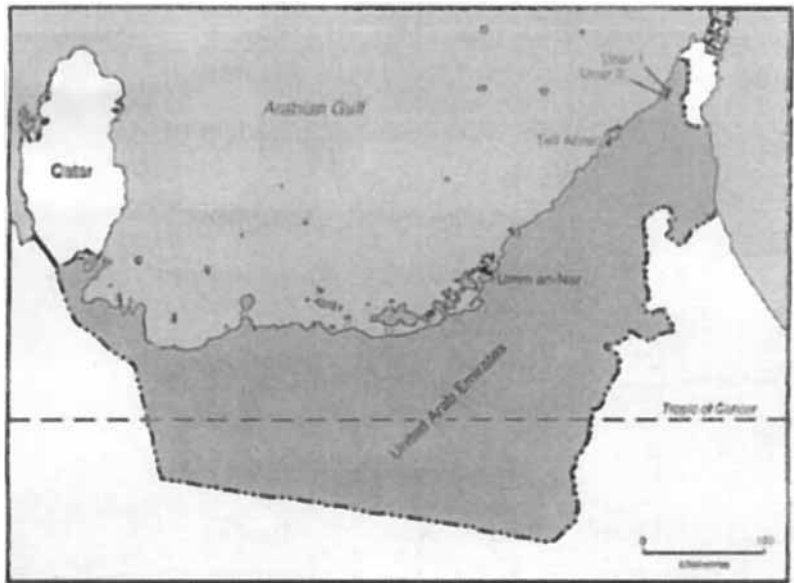


Fig. 2.  
Aerial view of Unar 2 after the first season of excavation. Letters refer to the different chambers (Photo: S. Blau).



around to accommodate the dog within the southern end of the chamber. Partial traces of the backbone and skull remained in the

form of very poorly preserved fragments. The dog was buried facing inwards towards the centre of the tomb (eastwards)

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Table 1. Other faunal remains recovered within Unar 2.

Chamber	Context	Taxon	Element	Measurements	Notes
Surface	1000	Ovis/Capra (sheep/goat)	Mandible	-	Tooth row fragment
Surface	1000	Crustacea (crab)	Chelum (pincer)	-	Very large crab - cf. <i>Portunidae</i> (Swimming crabs) ?burnt
A	1029.4	<i>Lepus capensis</i> (hare)	Distal femur	-	
B	1040.1	Crustacea (crab)	Chelum fragment	-	cf. <i>Xanthidae</i> (stone crabs)
B	1040.1	Unidentified mammal	Fragment	-	-
B	1040.6	<i>Canis familiaris</i> (dog)	Upper canine fragment	-	Perhaps belongs with burial 1058 in chamber D.
B	1043.4	Medium-sized mammal (sheep/ goat-size)	Rib fragment	-	-
B	1060.2	Elasmobranchii (shark/ray)	Vertebra	-	cf. <i>Carcharhinus</i> sp. (shark)
B	1060.5	<i>Canis familiaris</i> (dog)	Astragalus (left)	GL=28.0 (e)	Perhaps belongs with burial 1058 in chamber D. It is similar in size to the matching right side astragalus present in burial 1058.
C	1019.1 (NE)	Ovis/Capra (sheep/goat)	2nd phalanx (fused proximal)	Bp=10.4	-
C	1019.2	Small Canidae: ?Vulpes sp. (?fox)	Distal femur (right) (fused distal)	Bd=16.3 Dd=16.1	-
C	1019.3	<del>Small Canidae:</del> (sheep/goat)	2nd phalanx (fused proximal)	GL=21.7 Bp=10.7	?goat
C	1019.3	Aves (bird)	Cervical vertebra	-	cf. <i>Phalacrocorax nigrogularis</i> (So- cotra cormorant)
C	1019.4	Medium-sized mammal (sheep/ goat-size)	Caudal vertebra	-	-
C	1019.5	Pisces (indeter- minate fish)	Vertebra fragment	-	-
G	1042.2	<i>Scombridae</i> (tunas and mackerels)	Abdominal vertebra	-	cf. <i>Thunnus</i> sp. (tuna)
J	1014 (NW)	Smaller-size mammal	Vertebra	-	cf. <i>Lepus capensis</i> (hare)
J	1064.2	<i>Scombridae</i> (tunas and mackerels)	Caudal vertebra	-	cf. <i>Thunnus</i> sp. (tuna)
J	1064.3	<i>Canis familiaris</i> (dog)	Distal femur (left)	Bd=33.5 (e)	Perhaps belongs with burial 1058 in chamber D.
J	1064.3	<i>Scombridae</i> (tunas and mackerels)	Caudal vertebra	-	cf. <i>Thunnus</i> sp. (tuna)

with its front legs facing south and its back legs facing east.

The surface of the bones was poorly preserved, probably due to a combination of in-washing of silts, root action and robbing of stone from the tomb. This made it difficult to observe any butchery marks to the bones. As the skeleton seems to be largely complete, however, it seems likely that the whole dog was buried intact within the tomb (Table 2).

The dog was of adult age. One of the latest bones to fuse in the dog skeleton is the femur (10), whose proximal and distal epiphyses fuse at around one and a half years. These were both fused in the case of the Unar 2 dog burial. No *os penis* bone was present to help determine the sex of the dog but as this bone is quite fragile it may simply not have been preserved. The greater part of the skull and trunk were not preserved, which may be as a result of their general fragility but also perhaps on account of later disturbances such as in-washing of silt and sediment into the tomb. This is a pity as the size and form of the skull and teeth might have provided some clues as to the general form and identification of the type of dog present. However, all bone measurements which could be taken on the post-cranial skeleton were recorded using the criteria of von den Driesch (11). On the basis of these measurements the dog was of medium build and size (see Table 2). Taking the formula for reconstructing shoulder heights of dogs described by Harcourt (12), it had a shoulder height of 56.6 cm (based on extrapolating its height from the total length of its left complete radius). It is worth noting the presence of dog also within chambers B, G and J (see Fig. 2). These elements were of a similar size to the dog skeleton (context 1058) buried in chamber D, and could conceivably belong to the same individual. If these bones do indeed belong together then

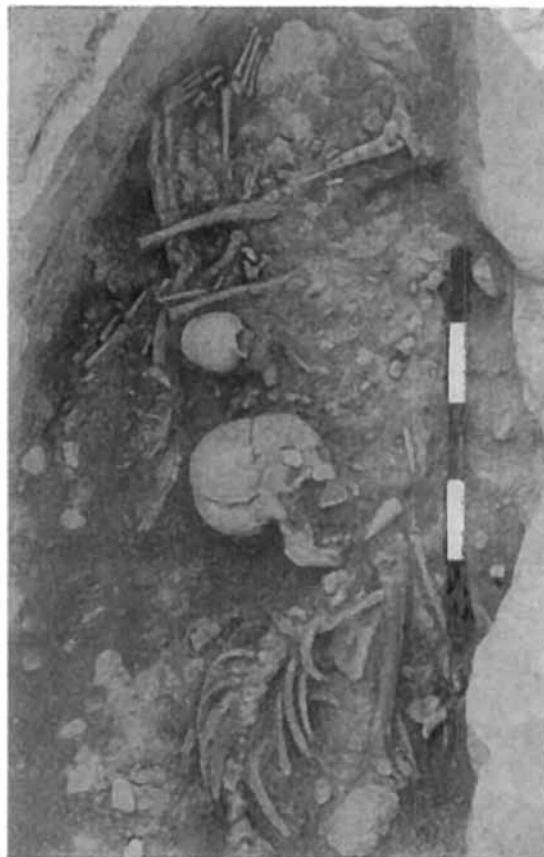


Fig. 3. Articulated dog skeleton in Chamber D lying at the head of a human burial (Photo: S. Blau).

this may indicate a regular pattern of robbing or disturbance across the tomb.

### The Human Burial

Of particular interest was the spatial relationship between the dog skeleton mentioned above and an articulated (unburned) human skeleton (Fig. 4). Lying in a flexed position, on its left side, with the head facing towards the west, the individual had been placed directly on the 'cobbled' floor of the chamber. Based on pelvic and cranial morphology as well as metrical data, the individual was posited to be a female. It was obviously adult, based

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Table 2. The Unar 2 dog skeleton – elements represented and bone measurements. N.B.: Codes in measurements are those according to von den Driesch (see 11): GL (Greatest length), Bp (Greatest breadth proximal epiphysis), BG (Breadth of glenoid cavity), DC (Greatest depth of caput femoris), LAR (Length of the acetabulum on the rim), SD (Smallest breadth of the diaphysis – medio-laterally), DPA (Depth across the processus anconaeus), Bd (Greatest breadth distal epiphysis), Dd (Depth distal epiphysis). All measurements are given in millimetres; (e)=estimated measurement; 'Whole'=almost complete.

Body part	Element	Side	Part	Proximal fusion	Distal fusion	Measurements	Notes
Skull	Skull frags	-	-	-	-	-	6 small frags
	?Canine frag.	-	-	-	-	-	-
	Mandible	Left	Front	-	-	-	adult canine present
Trunk	Cervical vertebrae	-	-	Fused	-	-	3 centrae
	Thoracic vertebrae	-	-	Fused	-	-	2 centrae
	Sacrum	-	-	Fused	-	-	-
	Indet. Vertebrae	-	-	Fused	-	-	5 centrae
	Rib	-	Proximal	Fused	-	-	Prox. frag.
	Rib	-	Midshaft	-	-	-	6 frags
Forelimb (L)	Scapula	Left	-	-	Fused	BG=18.7 (e)	-
	Humerus	Left	Distal	-	Fused	-	-
	Radius	Left	Whole	Fused	Fused	GL=171.7 Bp=16.2 (e) SD=13.4 Bd=23.0 (e)	-
	Ulna	Left	Whole	Fused	-	DPA=29.5	-
	Carpal	Left	Whole	-	-	-	-
	Metacarpal 2	Left	Whole	-	Fused	GL=59.3	-
	Metacarpal 3	Left	Whole	-	Fused	GL=68.0	-
	Metacarpal 4	Left	Whole	-	Fused	GL=67.3	-
	Metacarpal 5	Left	Whole	-	Fused	GL=56.8	-
	Phalanx 1	Left	Whole	Fused	-	GL=26.4	-
Forelimb (R)	Phalanx 1	Left	Whole	Fused	-	Bp=9.2	-
	Humerus	Right	Midshaft	-	-	SD=13.5	-
	Radius	Right	'Whole'	Fused	Fused	Bd=24.3 (e)	-
	Ulna	Right	Distal	-	-	-	-
	Metacarpal 2	Right	Distal	-	Fused	-	-
	Metacarpal 4	Right	Whole	-	Fused	GL=67.4	-
	Metacarpal 5	Right	Whole	-	Fused	GL=56.7	-
	Phalanx 1	Right	Whole	Fused	-	GL=26.2	-
	Phalanx 1	Right	Whole	Fused	-	GL=23.2	-
	Phalanx 1	Right	Whole	Fused	-	-	-
Hindlimb (L)	Phalanx 2	Right	Whole	Fused	-	-	-
	Pelvis	Left	Midshaft	Fused	-	LA=23.2	-
	Femur	Left	Proximal	Fused	-	DC=19.4	-
	Tibia	Left	Distal	-	Fused	SD=13.6 Bd=23.7	-
	Calcaneus	Left	Whole	Fused	-	GL=48.6	-
	Metatarsal 2	Left	Whole	-	Fused	GL=67.1	-
	Metatarsal 3	Left	Whole	-	Fused	GL=76.8	-

Table 2. Cont.

Body part	Element	Side	Part	Proximal fusion	Distal fusion	Measurements	Notes
Hindlimb (R)	Metatarsal 4	Left	Proximal	-	-	-	-
	Phalanx 1	Left	Whole	Fused	-	GL=28.1 Bp=9.0	-
	Phalanx 1	Left	Whole	Fused	-	GL=28.1 Bp=9.0	-
	Phalanx 1	Left	Whole	Fused	-	GL=23.6 Bp=8.8	-
	Pelvis	Right	Midshaft	Fused	-	LA=23.5	-
	Femur	Right	'Whole'	Fused	Fused	Bp=41.0	-
						DC=20.5	
	Tibia	Right	'Whole'	Fused	Fused	SD=13.3	-
						Bd=23.3	
	Calcaneus	Right	'Whole'	Fused	-	GL=48.1 (e)	-
	Astragalus	Right	Whole	-	-	GL=29.0	-
	Metatarsal 2	Right	Proximal	-	-	-	-
	Metatarsal 3	Right	Proximal	-	-	-	-
	Metatarsal 5	Right	Proximal	-	-	-	-
Phalanx 1	Right	Whole	Fused	-	GL=23.4 Bp=8.5	-	

on Brothwell's standards of attrition (13), and maxillary and mandibular dental wear suggested the individual was between 25 and 35 years of age (14). Although fully articulated, the bone was in relatively poor condition with no skeletal element being complete. This was probably as a result of the individual lying directly on the stony chamber floor (as evidenced by the cranium in which the entire left side was destroyed post-mortem), as well as the fact that the bones had been subjected to water as indicated by the silt and gravel matrix which surrounded the burial. Because of the poor preservation of the bone no estimates of stature could be provided. On the bones which did survive, no evidence of pathological alterations were observed.

Associated with this burial was a complete (although highly degraded) ceramic Umm an-Nar funerary vessel which was situated south of the head of the individual. A *Terebralia palustris* shell was also recorded adjacent to the mouth of the buried individual (see Fig. 4). Lying directly in the southern corner of the chamber, partially under the ceramic vessel was the associated dog. Clearly not a later

intrusive burial, the dog and the human were interred in the same stratigraphic level (context 1058). It appeared as though the dog had been buried prior to the placement of the ceramic vessel.

### Discussion

While the remains of dogs have been recovered from domestic contexts at sites in the U.A.E. such as Tell Abraq (15) as well as other sites in the Gulf (16), the dog burial within the Unar 2 tomb is very significant in that it represents the first occurrence of entire animals being deliberately incorporated within Umm an-Nar funerary practices. While the recent excavations of the Umm an-Nar tomb at Tell Abraq produced evidence of a dog in the form of an upper canine tooth (17), the only other published account of animal bones found in conjunction with an Umm an-Nar tomb is that from Grave I (reg. No. 1010) on Umm an-Nar island (18). Here the remains appear to represent later intrusions after the stone masonry of the grave was sufficiently disturbed to permit access for a wide range of birds, mammals, fish and



Fig. 4. Aerial view of Chamber D showing articulated human and dog skeleton as well as complete ceramic vessel and *Terebralia palustris* shell (Photo: S. Blau).

reptiles to hide, nest or hunt in the area of the site. The presence of bats, rodents, possibly a young fox and a small number of fish and turtle bones, in conjunction with the bones of birds such as terns, swifts and birds of prey, suggests that a variety of natural accumulating agents was involved in forming the assemblage of bones found within the disturbed layers of the tomb.

The presence of the *Terebralia palustris* shell adjacent to the mouth of the woman is interesting. The margin of the aperture of the shell appeared as though it had been deliberately damaged, presumably in order to extract its contents (19). These large gas-

tropods inhabit muddy areas within mangroves, and have been found in considerable numbers on several sites during various periods within the Shimal district (20). The Umm an-Nar inhabitants also probably regularly exploited the coastal mangrove area for various resources such as shells, crabs and wood.

Elsewhere in the region, animal remains have been found in the fourth-millennium BC graves excavated by S. Salvatori at Ras al-Hamra in Oman (21). Here it was reported that the dead often had macrocalista valves held in their hand in front of their face, as well as marine turtle remains; in some cases, the head of the animal was placed alongside that of the man. The burials there were also accompanied by other food remains which presumably represented funeral meals. These included dolphin and other large marine mammal bones as well as the jawbone of a dog. In the third-millennium BC levels at Ras al-Hadd in Oman dogs seem to have been consumed, as witnessed by a number of burnt and butchered dog bones (22). In the third-second-millennium BC burial mounds on Bahrain, animal bones have also been recovered in association with human skeletons (23). The bones of (usually) sheep and goat were located adjacent to human skeletons or alongside them in alcoves. The presence of butchery marks to these bones infers that they represented the remains of food which accompanied the dead.

There is no indication, however, that the Unar 2 dog was eaten. The fact that it was buried apparently intact within the tomb, perhaps with its owner, suggests that dogs were treated with a surprising degree of respect. Evidence for the practice of burying dogs with humans for purposes other than providing a 'ritual funerary meal' dates back as early as the Natufian period in the Levant (24), but is also recorded in Meso-

potamia, Egypt and Bahrain in the third millennium BC (25). However, the evidence from Unar 2 provides a hitherto unforeseen glimpse into human-animal relations during the Umm an-Nar period in the Oman Peninsula. Dogs may have played an important role in livestock management such as herding sheep and goat, as well as on hunting trips where they may have been used for stalking or retrieving prey. The care given to specific types of dogs used for hunting in the Arabian Peninsula is well attested in the ethnographic record (26). The hunting dogs were said to become 'members of the family, permitted the run of the tents and eating the same food as their masters' (27). If in fact the dog buried at Unar 2 was used for some kind of hunting then it is interesting that it is buried with a woman, especially given stereotypical notions about divisions of labour (28). Whatever practical roles dogs performed in the past, it seems certain that they also provided a faithful companion for the Umm an-Nar people who formed a close relationship with them, ultimately resulting in their inclusion within burial practices.

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