

# **Excavations at the Burial Ground of ‘Umm al-Mā’, Qatar**

**Preliminary Report on the First Season, February-March 2008**



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## **1. Introduction**

On behalf of the Qatar Museums Authority, Department of Archaeology and the mediation of Prof. Dr. Paul Yule from Rupert-Karls-University in Heidelberg, Dr. Juergen Schreiber, Munich, was invited to Qatar to begin excavations at the burial ground of ‘Umm al-Mā’. He and his assistant, Dr. des. Barbara Muhle, also Munich, arrived at Doha on January the 29<sup>th</sup>. After one week of preparations spent in Doha, we moved to the excavation house in Medinat al-Shimāl. Field work started on February the 8<sup>th</sup> and lasted until March the 26<sup>th</sup>, before we went back to Doha and left for Munich on March the 30<sup>th</sup>.

## **2. The area of ‘Umm al-Mā’**

The vast area of ‘Umm al-Mā’ is located on Qatar’s west-coast, by road approximately 80 km northwest of Doha or 55 km south of Medinat al-Shimāl respectively. On a first glance, the topography there seems to be of flat gravel plain, but a closer look shows that in fact the whole landscape is interspersed with low hillocks, rugged by small water-grooves and sediment-filled depressions. The gentle hills reach elevations of up to 10-20 m above sea-level. They are covered with sand or sediments but consist of limestone, which is sometimes visible on the surface of the tops or the slopes of the hillocks. The depressions vary enormous in size. Some are very small while the main depression of ‘Umm al-Mā’ in an area called Mleiha extends over several hundred meters. There is still a well in use today near a small palm-plantation. During rain, when these depressions may be filled with water, the whole area should be dotted with pools – perhaps that is where the region got its name (“mother of water”) from. Closer to the coast, which borders the region to the west, *sabkha*-like depressions are dominant.

Vegetation is scarce at ‘Umm al-Mā’. Mainly shrubs and thorny scrub bushes can be found there and some occasionally acacia trees.

### 3. History of research

The prehistoric graveyard of 'Umm al-Mā' was first discovered by the Danes in the 1950s during their work in the Gulf region, but due to lack of time just one tomb was examined (Glob 1957: 167-174). Later, nine more graves were excavated (Glob 1959), but unfortunately, as these tombs are still not published yet, information is very scanty. According to Glob's description (1957: 176-177), some 50 cairns can be found at 'Umm al-Mā', reaching a diameter of up to 10.0 m with a height of 1.0 m. The deceased were buried with the head in northern direction and put on their right side. No funerary objects were found in the graves, but on the surface of one of them a sherd of a highly fired red pottery ware as well as a rim fragment of an alabaster vessel was found. No dating for the graves is given, but by comparison with the even still unpublished tumuli at Wasmiya and Mattala on the Bahraini Coast, an indirect dating to the 3<sup>rd</sup> millennium BC was than suggested.

In the early 1970s a British team under the direction of Beatrice de Cardi conducted excavations at 'Umm al-Mā', but they concentrated on a settlement site and not on the cemetery. The excavation produced glazed pottery as well as Indian Red Polished Ware (IRPW) and was originally dated to the Sasanian-Early Islamic period (de Cardi 1978: 130-135), but there seems in fact to be no secure Sasanian evidence (Kennet 2007: 91).

In 1987/88 the Japanese Archaeological Mission to the Arabian Gulf excavated two tombs at 'Umm al-Mā' (J-1 and J-2) (Konishi et al. 1988; 1989) and re-excavated some tombs already examined in the late 1950s by the Danes. No datable objects were found, but it was possible to establish roughly four types of tombs:

- underground/semi-underground stone chamber for a single burial in extended position and a stone cairn as its superstructure,
- underground stone cist for a single burial in extended position and a stone cairn as its superstructure,
- burial pit for a single burial in flexed position and a mound of sand and cobbles as its superstructure,
- narrow burial pit for a single burial in flexed position and a mound of sand and cobbles as its superstructure (Konishi *et al.* 1994: 1).

To solve the chronological problem of the cemetery, a second campaign was conducted by the Japanese in 1990/91. Four *tumuli* were excavated additionally (J-3A and B, J-4A and B), which were roughly attributed to the second type of tombs. Several objects were found during

the excavations, comprising of several beads, bronze-fragments, a bronze finger ring and glazed pottery sherds. The pot sherds are not from within the burial pits themselves, but were found under the mounds or superstructures. The sherds and the other finds resemble similar objects excavated in the Hellenistic sanctuary B6 on Failaka – therefore a date of 1<sup>st</sup> cent. BC or AD was suggested.

#### 4. Survey

As the area of ‘Umm al-Mā’ offers no or just few landmarks, orientation there was not quite easy at the beginning. So when the field campaign started, a few days were spent at the site to get an overall view of the possible extension of the burial ground, the number of graves and their possible types. A systematic survey was not carried out yet, as this would have required a much higher degree of logistics in term of equipment, people and time.

The extension of the site is enormous. While the central area of Mleiha may reach about 25 km<sup>2</sup>, the tombs stretch much further. As far as we can say up to now, the boundaries are roughly defined to the north by the road between al-Ghuwairiyah and al-Zubārah Fort, by the sea to the west and by the al-Ghuwairiyah – al-Jemailiah road to the east, while the southern extensions are bordered by the Doha – Dukhan highway. So the tombs expand at least over a minimum of some 600 km<sup>2</sup>. This means that the whole region is more or less covered with tombs. They form groups consisting of several tombs, clustered on small hillocks or around the numerous depressions. Most of these tombs are in a bad condition: robbed, bulldozed, destroyed by Land Cruiser driving or simply eroded away due to natural influences like erosion or the constantly strong blowing north-wind. They consist of piled up fist-sized lime stones, forming small mounds c. 3.00-7.00 m in diameter and between 10 cm and up to 1.00 m in height and standing out from the surrounding plain – a large group of these kinds of tombs were also found near al-Rakyāt further to the north and a smaller one near al-Khor at Ras Yemaz on the east coast.

The number of 50 graves given by the Danish team may just hold true for the most prominent examples in the central area of ‘Umm al-Mā’, but is far too low for the whole burial ground. A precise number is not yet available, but it should be at least several hundreds if not thousands, disregarding the great number of tombs which must have already been destroyed by modern building activities or traffic.

Until now, we were not able to locate a settlement site in the area of 'Umm al-Mā'. There are lots of remains of stone settings scattered over the whole area, but as most of them resembling fire-places, prayer areas, stables or tent-enclosures they should be regarded as recent or sub-recent bedu-structures. The most promising location for a more substantial settlement can be found at the large depression of Mleiha near an old well still in use today, where several structures are still standing out of the sediments. But a test trench, excavated there by Dr. Heiko Kallweit reached the solid bedrock some 2.50 m below the present surface and produced pottery material not older than maybe 200 or 300 years.

The vast extension of the site and the enormous amount of tombs there, should suggest, that these tombs were rather built by nomads or semi-nomads than by permanent settlers. As the way of life of these people may have not differed much from that of the traditional Bedouins, identification of their camp-sites should be very difficult.

## **5. Excavation of the tombs**

For this first excavation campaign an area (labelled Area 1) of c. 200 x 50 m was chosen, some 1.6 km to the west of the tombs already excavated by the Danish and Japanese and bordered by the unfinished al-Dhabyah road to the north. This area is gently sloping down from the north to the south, running into a narrow strip of flat plain, which separates this area from the next group of tombs to the south. The reason for choosing this area was that the tombs there were erected of larger slabs, and were therefore in contrast to most of the other tombs in the further surroundings built of smaller, fist-sized stones. Most of the c. 50 tombs in this area were more or less destroyed, but the most prominent feature - a small hillock on the south-western edge of the area, where at least three relatively well built and massive structures were visible – seemed to be relatively promising.

After excavating 16 tombs in this area, we shifted to another area (Area 2), located some several hundred meters to the north-west of Area 1, immediately north of the al-Dhabyah gravel road. On this area, very gently rising from south to north, 49 tombs were recorded. Their original number should have been even higher, but as most of them were heavily disturbed, just the clearly recognizable ones were counted. Tomb UM0016, located in the centre of the eastern part of Area 2, was the only one to be relatively well preserved and was therefore chosen for excavation.

After three days of orientation, excavations started in Area 1 on February the 12<sup>th</sup> (from February the 19<sup>th</sup> on with workers) and were finished in Area 2 on March the 19<sup>th</sup> 2008. All in



all 17 tombs were excavated. We spent four more days in Shimal to work on the documentation and on drawing the finds as well as in digital surveying of Area 1 and 2.

### **5.1 UM0001**

This tomb is situated around 50 m to the north-east of the hillock with the large tombs UM0002-UM0005, which form the most prominent features of this grave cluster. UM0001 is located in the upper area of a slope, gentle running down towards a small depression. It seemed, as if this tomb belonged to another type than the larger ones in the centre of this group. At this time no workers were available and as it seemed relatively small, it seemed therefore to be quite good for excavation done by ourselves.

Before the cleaning of the surface of the tomb, it gave the impression of being a relatively circular structure, just preserved up to a maximum of two layers of stone. The ring consisted of medium sized lime stones (c. 20 x 20 cm) while the depression in the centre of the circle, indicating the location of the chamber, was covered with small pebbles. The remains of an outer stone ring seemed to be located about 1.00 m to the northeast.

After the cleaning of the surface and the removing of collapsed stone, the chamber was deepened. Its filling consisted of loose, sandy material mixed with occasionally lime stone pebbles. It turned out, that chamber had a long-oval, nearly rectangular shape and was surrounded by a two-faced oval stone circle. The stones of this circle were laid on the natural soil surface, while the chamber was cut down funnel-like for 20 cm into the lime stone bedrock. The lime stone here was built up in layers which were then visible in the profile of the chamber. The foot of the tomb was also formed by natural bedrock and was quite uneven due to the rock's natural structure. The supposed remains of an outer ring wall turned out to be natural grown stones visible on the surface. No larger slabs, which could have been used as cap stones were found in the surrounding of UM0001, but they may have been removed already.

The chamber's orientation was roughly east-west. The outer dimension of the stone circle surrounding the chamber was 2.00 m in north-south direction and 2.20 m in east-west direction. The length of the chamber was 1.50 m; on the surface it reached 0.75 m in width or 0.45 m on the floor respectively; this speaks for a burial in a stretched position.

No bones and no funerary objects were recovered. The chamber was obviously robbed and the missing of stones on the western edge of the tomb suggests that the plunderers entered from this side.

## 5.2 UM0002

Grave U0002 is located about 100 m west of grave U0001. It is the northern most of four tombs clustering on a low hillock. As most of the stones of the tomb were already nearly completely removed, its structure was good to recognize.

It consisted of a single outer stone-circle (stone size up to 10 x 20 cm) with a diameter of 4.40 m with another two-faced stone circle (diameter 2.40 m) in its middle. In the centre of the inner stone-circle a free area of oval shape (0.50 m E-W and 0.60 m N-S) was visible, which was considered to be the chamber of the tomb. On the eastern edge of the chamber a large *farush* capstone (c. 80 x 50 x 10 cm) was still laying *in situ*.

After cleaning the surface of the tomb, the central chamber was deepened. At the beginning orientation was not quite easy, as the stones of the circle were partly just placed on the natural surface, giving no hint of stone layers to following down. The burial pit was dug down the ground into the natural gypsum or crystallised limestone. A stone setting was just recognizable at the south-eastern wall of the chamber. There, four layers of large rectangular stones had been piled up to a height of 40 cm; while immediately to the south large rounded stones were used. In the western and northern part of the chamber stones were completely missing. On the western side of the chamber a loose and sandy filling, mixed with small pebbles and limestone splinters was encountered. In this area the plunderers must have taken their way down to the chamber. This is also testified by an almost vertical laying stone slab (c. 20 x 20 x 5 cm) inside the sandy filling, without any connection to a stone setting. The northern wall of the chamber consisted of the natural crystallised limestone already mentioned above. It is possible to cut through this material easily, but at the same time is hard and dense enough, that it was not necessary to build a stone wall there. All in all, the chamber was filled with loose and sandy material, often interspersed with small pebbles and lime stones.

Some 60 cm below the upper edge of the large capstone, we came across a brown layer. This dense and compact layer differed completely in consistence and colour from the light and sandy edges of the chamber. This layer was oval shaped, 1.70 m long and 0.60 m wide. On, but also in this 10-20 cm thick layer, as well as in the filling directly above, we found some fragments of human bones and also some splinters of shell. The bone fragments were concentrated on the south-eastern and the north-western edge of the pit. This coincides with the situation on the surface, where bone splinters had also been found on the south-eastern and the north-western edge of the inner stone circle and can be seen as another hint of grave robbery.

While cleaning this brown layer, which obviously was the floor of the chamber, two small stones were encountered at the south-eastern edge of this floor. Between the stones small cavities became visible and when it sounded hollow, it was clear, that another chamber must have been situated below this floor. After removing the brown layer, an intact cover of capstones came to light. It consisted of four large slabs; the biggest with dimensions of 50 x 30 x 5 cm. Some smaller stones were used to close the gaps and to stabilize the capstones. The dimension of the stone cover were exactly the same as with the brown layer above – so it seems possible, that the lower cist was regularly sealed.

By removing the capstones, the lower chamber was uncovered. The dimensions of the small chamber were between 25 and 35 cm in width and 1.60 m in length. To build the cist, large slabs were set vertically and then the capstones were laid upon them. The biggest of these vertical slabs reached 75 x 30 x 10 cm; where necessary smaller stones were used for compensation. On the northern side of the cist, in the area of the skull, no slabs were set. As was already mentioned earlier, here the crystallised limestone made this unnecessary.

The Skeleton was completely preserved and the bones were also in very good condition. The body was placed on its right side, the head to the north and with the face to the west. The neck vertebrae seemed to be strongly bent and their extremely s-shape may be seen as an indication of spinal deformation. Stuck to the left eyebrow, the right forearm as well as to the right pelvis and the left thigh bone were remains of brown textile, of which samples could be saved. After removing of the bones remains of this textile were also recovered below the skeleton on the floor – so this may be the relics of the cloth, in which the body was wrapped for the burial. Unfortunately, here the material was much to disintegrate to collect further samples.

When the chamber was cleaned after removing the skeleton, the floor was reached. As in grave UM0001 the natural limestone bedrock formed the floor of the chamber. Unfortunately no grave goods or personal ornaments of the buried person could be found. As this burial was clearly undisturbed, the dead person must have been buried without any objects – therefore a dating of the tomb is yet not possible.

As just the lowest stone layers were preserved, it is impossible to estimate the original height of this structure. It seems likely, that larger stones were used for the basic construction of the tomb, while a *tumulus*-like superstructure could have also consisted of smaller stones, in the meantime robbed or eroded away. But all in all we have to assume, that this tomb was constructed with two chambers on top of each other. First a deep pit was dug into the natural soil. After the building of the lower cist and the burial of the deceased, the cist was covered

with capstones and was then sealed. The space above was then used for a second burial on top of the sealing layer – this is attested by fragments of human bones and shell splinters from that very layer. Later the upper burial was robbed – at least an indirect hint of grave goods valued by plunderers – while the lower one remained intact. The question now is, whether the robbers missed the lower burial by accident or whether they did know, that there was nothing to get?

### **5.3 UM0003**

Tomb UM0003 was situated immediately south of UM0002, but more of its massive structure was preserved and it reached far greater dimensions. The diameter of the outer ring wall was 6.80 m, while the slightly oval inner circle around the chamber measured roughly 2.80 m in east-west direction and 2.20 m in north-south direction. This circle consisted of larger stones (up to 40 x 30 cm) and seemed still to be piled up for several stone layers. Most of the eastern part of its outer ring wall was destroyed, probably by building tomb UM0004, which was set between UM0003 and UM0005 at a later moment in time.

After cleaning the surface of the tomb, its chamber was deepened. In the upper part of the filling larger lime stones were found – probably collapsed remnants of the cover of the tomb. Below that the chamber was filled with loose and sandy material, intermingled with some smaller lime stones. As in UM0002 the burial pit was also cut into the gypsum or natural crystallised limestone, and therefore here also stone settings were just built on one side of the chamber, in this case on the northern one, where several layers of large flat slabs had been piled up to keep sandy material from running down into the pit. In the southern part of the chamber the stones were just laid on the surface consisting of relatively hard and dense soil mixed with numerous small lime stone splinters. In this area scattered fragments of human bones were found – a clear indication of plundering. In the eastern half of the chamber the solid bedrock was reached at a depth of 60 cm below the upper most stone setting, while the western part consisted of a brownish dense mud-like soil, similar to the one above the lower cist of UM0002. On the surface of this layer numerous bones of mice as well as pieces of plastic and textiles were found, attesting that this chamber was the den of a small beast of prey.

When we started to remove this brown soil, further more fragments of scattered human bones were detected. On the south-western edge of the chamber a bronze/copper ring came to light, followed by several fragments of a bronze/copper sheet. A little bit deeper, but situated immediately to the south of this sheet several fragments of iron were discovered, accompanied by v-shaped copper/bronze sheets. Furthermore south of the iron object another

pair of copper/bronze sheets and a massive cone-shaped object was found. The filling in this area contained also fragments of a copper/bronze pin as well as a fragmented buckle (?) made of silver or lead. As it turned out, the iron fragments belonged to a sword and the copper or bronze objects were the fittings of the scabbard, originally consisting of perishable material such as leather. Preserved were the upper setting, the v-shaped side settings as well as the lower settings of the scabbard. The bronze ring and the buckle probably belong to the belt or the strap of the scabbard. As the tomb was obviously robbed, it seems strange, that the sword was not removed. So it may either have slipped to the edge of the chamber before or during robbing and was therefore missed, or the iron of the sword was already so corroded at the time of plundering, that it was worthless to the robbers.

After excavation, the chamber was roughly oval with a north-south extension of c. 1.20 m and an east-west extension of c. 1.60 m. The floor of solid bedrock was reached some 60 cm and 70 cm respectively below the preserved upper layer of the stone circle surrounding the chamber.

#### **5.4 UM0004**

This tomb was set between UM0003 and UM0005; parts of the eastern outer ring wall of UM0003 and most part of the western ring wall of UM0005 were removed to build this tomb. As the north-western part of this tomb was disturbed, its diameter can not given precisely, but may have been around 4.00-4.20 m, what makes UM0004 the smallest of the four tombs located on this natural outcrop anyhow. Despite of its smaller extensions some very large slabs (up to 60 x 60 cm) were used in constructing this tomb – these slaps probably derived from UM0003 and/or from UM0005.

Even after collapsed stones were removed and the surface was cleaned, it was not quite clear, where the chamber had to be located. Finally it was found out centred in the northern half of the outer ring. Here large slabs were set on the natural bedrock to surround an oval area with a north-south extension of c. 1.60 m and an east-west extension of almost 2.00 m. The natural bedrock, slightly rising from north to south forms the floor of the chamber some 40 cm below the upper edge of the surrounding stones. A small sounding done on the outside of the two large south-western slaps, confirmed this observation. The large slabs were set on or were deepened a few centimetres into the natural gypsum layer, either set vertically or slightly sloping towards the chamber, and were then supported by smaller stones set against them inside the chamber to prevent them from collapsing.

With the exception of fragmented human bones, no other objects were found. As the bones were scattered all over the chamber, this grave was also robbed. The robbers came from the western side of the tomb and removed the stones of the outer ring as well as the inner stones, bordering the chamber on this side.

### 5.5 UM0005

UM0005 is the most western tomb on this low hillock. The tomb has a slightly oval shape - due to the fact that its outer wall was adjusted to the topographic conditions of the outcrop - and a diameter of roughly 7.50 m. Large stones (up to 60 x 30 cm) were used to build the foundation of the tomb, and were probably also used to pile up the *tumulus*. As already mentioned above, parts of its western ring wall were removed when tomb UM0004 was build adjacent to UM0005.

The inner two-faced stone circle surrounding the chamber had dimensions of c. 2.80 m, while the slightly oval pit itself had an upper diameter of some 1.60 m. Again, the chamber was cut into the gypsum-like bedrock, later filling with loose sand and sediment. A clear indication of robbing was given by scattered human bones as well as by some large stones, originally situated at the northern side of the chamber, which then had partly slipped down the edge of the pit. Above the natural bedrock floor of the chamber (some 1.20 m in diameter) again the brownish dense mud-like layer was encountered. In the north-western area of the pit and directly on this layer some bones of the upper part of the body were found *in situ*. These were parts of the left arm, some ribs, and some vertebrae as well as parts of the pelvis. The bones were literally merged with the brownish layer, forming a hard and dense compound. The deceased was buried in a flexed position, laying on its right side, originally with the (now missing) head to the west and the face to the south.

From the area of the preserved upper part of the body several objects were recovered, but all of them were not in their original position anymore. These artefacts consisted of a complete bronze or copper pin (unfortunately twisted by a hit of the tool of one of the workers), two fragments of another bronze/copper object (a pin?) as well as two rim-fragments of the same black polished soft-stone vessel. A light green glazed Islamic pot-herd was also found at the western edge of the floor. As this sherd dates to the Late Islamic Period or is even recent, it should have found its way down to the bottom of the pit together with the sand and sediment, which filled the chamber in the course of time after the tomb had been robbed.

## 5.6 UM0006

This tomb is located a few metres to the west of UM0005 a little further down the slope of the main hillock. Like UM0005, this tomb was also adjusted to the topographic conditions and therefore had a slightly oval shape with an average diameter of 7.50 m. UM0006 had been also erected from large slabs, up to 50 x 30 cm. These slabs were laid radial around the inner circle of the chamber, following the natural ground.

During the cleaning of the surface of the tomb, it already became clear that the tomb had been robbed as several fragments of human bones, fragments of shell, many sea-snails as well as a complete carnelian bead were found scattered between the remaining stones. Two almost stone free areas to the north-west and south-east of the chamber may indicate that the plunderers cleared these narrow passages through the mound to enter the chamber from both of these sides. As most of the northern and south-eastern stones of the inner circle surrounding the pit were removed by the robbers, it was not possible to determine the exact dimensions of the chamber itself. Originally, the chamber was probably oval-shaped and we would like to suggest a north-south extension of about 1.20 m and an east-west extension of c. 1.00 m. To the north of the original chamber the robber's shaft (c. 1.00 m long and 0.80 wide) was encountered, the whole area filled with loose sediment mixed with fragments of human bones; excavating here was stopped when no human bones were found there anymore. This holds also for the second shaft. It was dug down from the south-east, reaching dimensions of c. 0.50 m in length and 1.00 m in width – here also numerous bones as well as a few small finds were detected.

The preserved eastern wall of the chamber consisted of hardly more than one large block (60 x 40 x 20 cm), while the preserved western wall was set of medium sized stones, looking rather irregular what may also have been due to the disturbing during plundering.

The original furnishings of the burial must have been very rich, as despite of the plundering some 35 objects (cf. list of finds) were recovered in the filling of the chamber as well as in the robber's shafts, including an earring made of silver, several beads of different materials, fragments of a carinated pottery bowl, some bronze or copper objects, a complete vessel of onyx (?), as well as some 500 sea-snails. Some fragments of camel bones and teeth were also found (at least one burned bone fragment), what suggests, that at least parts of a camel were buried with the deceased.

After the chamber was cleared of the filling, the floor of the chamber was reached some 60 cm below the present surface, consisting of two large lime stone slabs. While the northern slab was of natural bedrock, it was not clear whether the second one was also natural or was



placed there intentionally. Anyhow, as a hollow was visible beneath the slab, it was removed and a nearly complete bronze or copper needle came to light. As the ground there was very irregular it may be possible, that this slab was placed there intentionally to get even subsoil. On the other hand taking into consideration the enormous weight of this slab and its dimensions (c. 1.00 x 50 x 25 cm), it may also have been part of the natural bedrock.

A very large amount of human bones were found inside the filling of the chamber as well as in the robbers' holes. So it seems possible, that they belong to more than one person, indicating that this tomb may have been used for a double burial, or that it may have been reused in later times – but this can just be confirmed after an examination by an anthropologist.

### **5.7 UM0007**

UM0007 is located a few meters away from UM0006, downwards the western slope on another small outcrop. This tomb was heavily disturbed and just a relatively small amount of small to medium sized stones were scattered over the surface of this outcrop. Therefore it is difficult to estimate the exact dimensions of this structure. But in consideration of the possibility, that the natural limestone rock, which was visible there on the surface at some spots, may have been used for the foundation of the *tumulus* of the tomb, its original diameter ought to be roughly 4.00 m.

The only hint for the location of the chamber was provided by a large slab (c. 40 x 40 x 20 cm) at the northern side of the structure, which seemed still to be *in situ*. Taking this massive block as starting point, it was possible to clear the chamber. The chamber had an oval shape with a north-south extension of c. 1.00 m and an east-west extension of c. 0.60 m. The northern and north-eastern walls of the chamber were build of large and medium sized lime stones, set vertically, while the western wall was erected of squared slabs laid horizontally. The stones of the southern end as well as of the south-eastern part of the chamber were missing or at least one remaining stone had slipped halfway down the pit. The stones were probably removed by the robbers, entering the chamber from this side. At the south-eastern side of the chamber natural grown lime stone became visible, which was probably used as a basis for the former stones of the chamber's enclosure.

Like in the other tombs, the solid bedrock formed the chamber's floor some 60 cm below the upper edge of the northernmost massive slab.

The plundering of the tomb was also attested by many fragments of human bones, intermingled with the loose and sandy filling of the chamber. The only artefacts recovered



from the filling were a tiny bronze sheet (probably from a bowl) as well as a complete tubular bead made of local soft and light lime stone.

Three more flat hills were recognizable further down the slope stretching into the flat plain, located to the west and south of UM0007. Covered with stones and some kinds of stone settings they seemed to be the remnants of other tombs. Therefore they were examined by small soundings, but as it turned out, they were either natural formations or some later structures probably erected by Bedouins.

### **5.8 UM0008**

UM0008 is located to the north-east of the previous described tombs, immediately south of the al-Dhabyah gravel road. After the surface was cleared, the tomb presented itself as a roughly circular structure with a diameter of 6.00 m. It was build of medium sized stones, some of the few larger slabs reaching dimensions of 60 x 30 cm.

A small depression without stones in the centre of the structure was easy recognizable as the chamber of the tomb, and also a clear indication for robbing. The robbers had been very thorough as not a single fragment of human bones or any other objects were found in the sandy filling of the burial pit. The chamber was oval in shape, reaching c. 1.80 m in east-west direction and c. 1.30 m in north-south direction and was cut into the natural gypsum or crystallised lime stone. On the eastern side of the chamber one of the cover-stones was still *in situ*, set on this gypsum or crystallised lime stone, which formed also the floor of the burial pit. At the western end of the chamber, the floor was deepened to about 60 cm below the uppermost stone setting, then rising to about 30 cm below the eastern cover-stone. Probably due to the robbing of the tomb, some stones of the chamber's walls seemed to have been tumbled – especially in the north-western corner, where a large block was found inside the chamber, leaving a gap into the stone setting. The neighbouring stone to the west may also have toppled over towards the chamber, but was at least in its approximate position.

### **5.9 UM0009**

UM0009 was situated further to the southwest of UM0008. On the surface, a scatter of relatively large stones (up to 50 x 30 cm) was visible with some upright standing stones indicating the location of the chamber. All in all the structure seemed to have had a diameter of roughly 6.00 m. During the clearing of the surface it turned out, that, what was originally regarded to have been the western part of the enclosure of the tomb was actually a small

separate tomb and was therefore labelled UM0009a (cf. below) – reducing the diameter of UM0009 to c. 3.00 m.

The superstructure of the tomb was completely destroyed, and the large cover stones, piled up to the north-east of the structure attested that the chamber had already been opened. At least the burial pit itself was completely intact. The chamber was roughly circular with a diameter of 1.50 m. On the western side the enclosure of the chamber was formed by large flat slabs set vertically on the ground, while the somewhat shorter stones on the eastern side were set on flat slabs laid horizontally on the floor of the chamber. On the northern part of the enclosure relatively large round stones were set in front of the upright standing slabs to prevent them from collapsing. Like in the other tombs, the floor of the chamber consisted of the natural lime stone rock, some 40 cm below the upper edge of the highest stones of the pit's enclosure. All in all, this tomb was very similar to UM0004.

Tiny fragments of human bones were already found on the surface during the clearing of the tomb. Furthermore bone fragments were collected from the chamber scattered there in the loose and sandy filling. The most interesting object recovered in UM0009 was a complete bronze or copper earring. The other objects were a fragment of a bronze sheet (from a bowl?) and a small fish vertebra.

Located to the southeast of UM0009 was a structure build of small stones. This structure was nearly rectangular (1.20 m in east-west and c. 2.00 m in north-south direction), and a small “entrance” to the south-west. A small sounding cut through this stone setting showed, that the stones were just laid on the natural soil surface and had no substructure. The function of this structure remains unclear, but may be considered to be Bedouin or recent.

### **5.10 UM0009a**

Immediately located west of UM0009, tomb UM0009a was originally to be considered part of the structure of UM0009. It was a small tomb, enclosed by a stone circle of 2.00 m in diameter with a preserved height of 20 cm or two layers of medium sized stones.

The encircling stones were just set on the original surface, while the burial pit was sunk for 20 cm into the original soil. The chamber was slightly oval with an east-west extension of 0.80 m and a north-south extension of 1.00 m. The floor here also consisted of the natural bedrock.

The tomb was robbed from its southern side, as the stones of the enclosure were missing there. No bones were found inside the tomb, but a complete shell was collected from the filling.

### **5.11 UM0010**

This tomb was located just a few meters south of UM0009 and was obviously undisturbed, as it was still covered with flat slabs. It was slightly oval in shape with a diameter of c. 2.00 m and was very flat with its stone setting just rising 10 cm above the surrounding surface. The enclosure was erected of small to medium sized stones. A relatively large cap-stone (50 x 40 x 5 cm) was used to cover the south-eastern part of the chamber, while the rest of the chamber was covered with smaller slabs.

Like UM0009a, the stones were just laid on the surface soil, while the burial pit was dug tub-like down for about 20 cm, where the solid bedrock was reached. The chamber was oblong-oval or nearly rectangular in shape with 1.00 m in east-west direction and 0.80 m in north-south direction.

Despite the fact, that this tomb was undisturbed it was completely empty. This observation, in combination with its small dimensions suggests that this type of tomb was used for the burials of infants or children. Due to the high amount of collagen in infants' bones, they have decayed completely and no bones were preserved at all.

### **5.12 UM0011**

UM0011 was situated a few more meters south of UM0010. The surface was marked by some scattered stones and the remains of the southern ring wall, so the tomb may have had a diameter of about 4.00 m. Some larger stones (c. 50 x 20 cm) north of the remaining part of the ring wall seemed to indicate the location of the chamber.

We were excavating the whole area (c. 2.40 x 3.40 m) north of the southern enclosure down for some 30 cm until we reached the solid bedrock, but we were not able to determine the exact position of the chamber. All stones of the chamber must have been removed by robbers, leaving no single stone in its original position. Just two of the larger slabs, which had collapsed in the meantime also, may give a hint of the approximate localisation of the chamber's northern end.

Not a single bone fragment was detected, but a shell-fragment was found inside the loose filling, south of the two collapsed stones.

### **5.13 UM0012**

Like UM0008, this tomb was also situated immediately south of the unfinished al-Dhabyiah road, though much further to the west than UM0008.

A stone circle of c. 4.00 m, build of medium to large sized stones (up to 60 x 40 cm) and a concentration of collapsed stones to the west of the structure were visible on the surface. The stones surrounded an area almost free of stones (c. 1.5 m in diameter), indicating the position of the chamber. A large flat slab (c. 60 x 60 x 10 cm) on the northern side of this area was probably a removed cover stone.

When the burial pit was excavated, it turned out, that its southern side was completely missing – probably due to destruction caused by grave-robbing. The remaining walls of the chamber appeared to be relatively irregular as they had been erected by a mixture of large blocks as well as some smaller stones. Because of the disturbed south wall, the exact dimensions of the chamber are not clear, but following the curve of the preserved parts, the round chamber may have had a diameter of roughly 1.40 m. The floor of the chamber, i.e. the solid bedrock, was reached some 50 cm below the uppermost stone setting of the western side, slightly rising to a depth of 20 cm on the eastern side.

The tomb was thoroughly plundered, as not a single fragment of human bones or any other object had been found in the filling of the chamber.

#### **5.14 UM0013**

Tomb UM0013 was located about 10 m east of UM0012, also immediately south of the al-Dhabiyah gravel road and was the eastern most structure excavated in this area.

The remains of a circular structure of some 4.00 m in diameter were visible on the ground. While parts of the circle, especially to the east, seemed to consist of large stones (almost 60 x 60 cm) the southern part was built of moderately sized stones (max. 20 x 10 cm).

The solid bedrock was reached almost immediately below the present surface. So the visible stones were nothing more than the lowest row of the stone enclosure, integrating also natural rocks into the foundation of the structure - therefore giving no hint for the original location of the chamber or its dimensions.

No bones or any other object was recovered there.

#### **5.15 UM0014**

This tomb was located to the south-west of UM0013, halfway between the already excavated tombs UM0001 and UM0009. There, a stone set circle was visible on the surface, roughly enclosing an almost stone cleared area of some 3.20 m. The stones used to build the enclosure consisted of small to medium sized stones (c. 30 x 20 cm), while just a few larger stones were found in the debris concentrating mainly to the north-east and south-east of the enclosure.

Like at UM0013, the solid bedrock, which formed the floor of the chamber at the same time, was reached just a few centimetres below the present surface. Here also just the lowest stone layer of the foundation of the tomb was preserved, but the round chamber was still recognizable. It had a diameter of c. 1.60 m, but all in all far to less of the structure was preserved, to allow any further statements concerning its mode of construction.

No objects were found, either on the surface or in the loose filling of the chamber.

### **5.16 UM0015**

Tomb UM0015 was located to the west of UM0001, closer to the main hillock where the tombs UM0002-UM0005 had already been excavated. A scatter of stones was visible there on the surface, among them one large cover stone with dimensions of 80 x 70 x 10 cm. These stones seemed to form a circle of some 1.50 m.

After cleaning the surface, it turned out, that the area we believed to be the burial pit consisted already of the natural lime stone bedrock and the chamber had originally been located to the south of it. Excavation showed, that just the northern half of the chamber was preserved, while its southern end could not be determined as it had already been completely destroyed. The preserved part of the chamber just consisted of the lowermost stone setting enclosing an oval area of approximately 1.60 m in north-south and 1.20 m in east-west direction.

### **5.17 UM0016**

As most of the remaining tombs in Area 1 were similarly disturbed like UM0013-UM0015 and therefore new information seemed very limited, we shifted to another location. This new area was located some hundred metres to the north-west of the first area of excavation, and north of the unfinished al-Dhabiyah road. There can also be found a large number of very disturbed tombs, with the one exception of UM0016.

This large tomb was relatively well preserved with a diameter of 6.00 m and clearly standing out for almost half a meter of the flat surrounding. It was erected of medium sized lime stones and a few larger slabs (c. 50 x 30 cm) had been used also. Already during clearing the surface several fragments of human bones were found between the stones of the tomb and a narrow gap in the north-eastern side of the ring wall was another clear indication for grave-robbing.

The chamber's enclosure was built of some larger slabs, intermingled with small stones, thus giving the pit itself a slightly irregular oval shape. Its east-west dimensions are 1.60 m, while its north-south dimensions vary between 0.60 m in the eastern part and reaching almost 1.20 m in the western part. Interesting to note is a large sloping slab standing out of the centre of

the southern wall. At a first glance, this stone seemed to have been collapsed, but as it turned out the stone was still in its original position and was probably used as a supporter of the cap stones covering the chamber.

As was already suggested by the presence of human bones at the surface and the narrow gap in the ring wall, the chamber had been almost completely robbed. Just a few bones and a single sea-snail were found in the loose and sandy filling of the burial pit. The floor, or the solid lime stone bedrock was reached about 60 cm below the upper edge of the eastern stones surrounding the chamber, rising up to a depth of 40 cm on the western side.

A small stone circle of c. 80 cm in diameter was set on the south-western side of the outer ring wall of UM0016. It was also excavated to check a possible connection with the tomb. Unfortunately it contained no finds at all, but as it was clearly set against the lowest stones of the tomb's foundation it should be considered temporary with the construction of the *tumulus*. Maybe this circle should be regarded as an offering place, connected to some kinds of burial rites.

## **6. The finds**

Out of the 17 excavated tombs ten contained finds: UM0002-7, UM0009, UM0009a, UM0011 and UM0016 (List of finds below). In all these tombs remains of human bones were also found, with the exception of UM0009a and UM0011.

Shells, both worked and un-worked, seemed to be the most frequent funerary objects, but some of them also contained metal artefacts, made of copper or bronze, iron and probably silver. Stone objects were also relatively common, while glass or frit objects, pottery and animal bones were just found seldom.

### **6.1 Metal objects**

Metal objects derived from tombs UM0003, UM0005-7 and UM0009. Among the copper or bronze artefacts are complete or fragmented needles/pins, a complete earring, a complete buckle (?), fragments of buttons as well as several fragments of undeterminable objects (among them maybe sheets from bowls?).

A complete earring made of silver was found inside UM0006 (Pl. 14).

The most interesting metal find was a corroded and broken, but complete iron sword (Pl. 27) with a length of 60 cm from tomb UM0003. This sword was accompanied by several bronze objects, which were from the scabbard of the sword and probably its strap or belt, including at

least one long v-shaped sheet of the side fittings of the scabbard, both lower fittings of the scabbard together with its end-piece shaped like a pine cone (Pl. 28). This type of sword or scabbard may be of Mediterranean origin and we should be able to date it quite precisely.

## **6.2 Stone objects**

The stone objects were made of different semi-precious stones, from flint, soft-and sand stone and the local limestone. Almost all stone objects were excavated from UM0006 (Pl. 14), just one stone artefact each was recovered from UM0005 and UM0007.

Most of the beads from UM0006 were made of semi-precious stones. There was a short tubular agate or alabaster bead, an oblong tubular bead made of chalcedony, a tiny carnelian and a larger barrel-shaped carnelian bead as well as a fragment of a large globular crystal bead. While all of these beads were imported, a large bead from UM0006 was also made of local lime-stone. A tiny globular bead was probably also made from this material, while a large roughly worked disc-shaped bead as well as an oblong tubular bead from UM0007 (Pl. 30) consist of a kind of lime or gypsum and were also local made. This is not so clear for a pendant from UM0006 made of reddish-brown sand-stone, as at least this kind of stone is not naturally available in the area of 'Umm al-Mā'.

Two flint pebbles were also found in the filling of UM0006. While it is not clear if they are worked or not, there can be no doubt about it, that they were placed intentionally. However, their function has still to be determined.

A complete stone-bowl was also recovered from UM0006. It consists of a whitish brittle stone, which may be onyx. It has a diameter of 7.0 cm, a height of 2.5 cm and was probably used for some kind of cosmetics.

A rim fragment of a black polished soft-stone vessel, decorated with three horizontally grooves, was excavated from tomb UM0005 (Pl. 29). Unfortunately, the piece is too small to determine its diameter, but its wall thickness is 0.7 cm. The colour of the soft-stone, its rim-shape as well as its surface treatment resembles parallels in the Late Pre-Islamic settlements of the United Arab Emirates (Zuttermann 2003) and the Samad-Period cemeteries in Oman (Yule 2001).

## **6.3 Pottery**

Pottery was found mainly on the surface of the tombs or around them, in the uppermost filling of the chamber or the robbers' shafts (UM0003-7 and UM0016). The pottery consists mainly of sherds of relatively coarse wares and a few glazed ones. They can all be dated to the sub

recent Islamic period and are for example comparable to the material excavated in the al-Zubarah settlement, located a few kilometres to the north.

The only ancient sherds were found inside of UM0006 (Pl. 14). They all belong to the same carinated bowl of pale yellow colour (5Y 8/3 after Munsell). It has a rim diameter of 14.5 cm, its wall thickness is 0.4 m, and it is wheel-turned and relatively hard fired. Comparisons to this bowl should provide a good dating for the burial of UM0006.

#### **6.4 Glass and frit objects**

Two glass or frit beads were found in UM0006 (Pl. 14). The first one is of tubular shape and coloured in dark green with a brownish band. The second one is disc-shaped and also of dark green colour. More of such frit beads were found on the surface of tomb UM0065, located on a low hill above the western edge of the large depression of Mleiha. Two and a half light green frit beads of globular shape as well as a smaller one were found there in connection with a reddish brown disc-shaped bead (Pl. 32).

A tiny yellowish glass-fragment was excavated from UM0006. Because of its diminutive size, it is impossible to determine the shape of the vessel, but it may find its parallels also in the Late Pre-Islamic Period of ed-Dur or Mleiha in the United Arab Emirates.

A light green opaque sherd was also collected from the surface of tomb UM0066 to the southwest of the large depression.

#### **6.5 Molluscs and shell objects**

Molluscs were the most common type of finds from the tombs at 'Umm al-Mā', while worked shell objects were just found inside of tomb UM0006. This objects (Pl. 14) consists of a complete shell-ring, a drilled shell (*Dosina labiosa?*), probably worn as a pendant as well as of three cut cowri-shells, which were probably sewn to the clothes of the deceased.

Shell fragments were found on the surface of UM0003, UM0006 and UM0016 and from the fillings of UM0005, UM0006 and UM0011.

Complete molluscs were found at the surface of UM0003 (Pl. 26), probably two *Turbo coronatus* and one *Cardita bicolor* and UM0065 (Pl. 32, probably *Dupra concactenata*). A complete shell (*Dosina labiosa?*) derived from the filling of UM0009a, while in the filling of UM0006 seven complete shells were found. These are probably two *Arabica Arabica*, one *Barbatia lacerate* (?) and possibly two *Dosina labiosa*, one *Diodora funiculate* and one *Vermetus sp.*. Additionally, from the surface and the filling of UM0006, some 550 small sea-snails (Pl. 14) were recovered. This number contains several species, but *Cerithium morus*



seems to be the predominant one. A single *Cerithium morus* was also found inside of UM0016. (Cf. Choquert 1988, 2005 for the shellfish of Qatar).

## **6.6 Animal bones**

Animal bones were found inside of just two tombs (UM0006 and UM0009) and the surface of UM0065. From UM0009 and the surface of UM0065 came a single fish vertebra each, while in UM0006 several fragments of camel bones and teeth were found. At least one small bone fragment shows signs of burning and may therefore provide a hint of food deposit within the burial. Anyhow, examination by a palaeo-zoologist would be helpful.

## **6.7 Other finds**

One of the most interesting finds came from UM0002. The undisturbed burial in the lower chamber did not contain any grave goods, but we found the remains of a brown textile (Pl. 15) stuck to several parts of the skeleton (forehead (Pl. 6), pelvis, thigh etc.) - probably the cloth in which the deceased was wrapped before being buried. As remains of textiles are very rare in the Gulf region, this would be a unique opportunity for an analysis of the material.

## **7. Conclusion**

In this first campaign 17 tombs were excavated, which can be divided into four types. The tombs UM0011 and UM0013-15 were heavily destroyed; therefore they can not properly be attributed to a certain type.

### **Type 1:**

This is the simplest type, represented by UM0001, UM0009a and UM0010. The structures of this type consist of a simple oval enclosure of the chamber, which was then covered by flat slabs. The small to medium sized stones surrounding the burial pit were set on the surface of the natural soil, reaching not more than one to two stone layers or 10-20 cm in height. The diameter of this type of tomb is homogeneously at 2.00 m. All of the chambers were deepened into the ground for 20 cm until the solid bedrock was reached. At least in the case of UM0001, the pit was cut out of the natural lime stone bedrock.

The shape of the chambers was oblong oval or approximately rectangular reaching an average extension of 0.80 x 1.00 m. UM0009a and UM0010 were orientated in north-south direction, while UM0001 was more orientated in a north-east south-west direction.

According to their size, this type should be regarded as infants and children burials. This would also be an explanation for the missing of human bones inside of the undisturbed tomb UM0010. So it is to assume, that the children bones were too weak to be still preserved after a long time. If the dead were buried in a flexed or extended position is not quite clear. The larger oblong chamber of UM0001 may point towards a stretched position, while in UM0009a and UM0010 both possibilities seem likely, depending of the size of the buried children.

In Area 1, these tombs can be found set between larger structures (UM00010 located between UM0009 and UM0011) or in immediate vicinity of larger tombs, as this was the case with UM0009 and UM0009a for example, what may cautiously suggest a relationship between the buried persons (mother – child for example). East of UM0009, the whole slope is covered with this kind of structures, what suggest a children cemetery in this area.

#### Type 2:

This type consists of UM0004 and UM0009, but also some of the excavated heavily disturbed tombs may belong to this type. Structures of this kind have a diameter of 3.00-4.00 m with a 30-40 cm deep chamber sunk into the ground until the solid bedrock was reached. The round or slightly oval chambers have a diameter between 1.50 and 2.00 m and were enclosed by a stone circle of large vertically set stones. Where the chamber stones were not long enough, flat slabs were used as a base. On the inside sometimes smaller stones were used to support the larger stones to prevent them from collapsing into the chamber. The deceased were probably buried in a flexed position.

As some of the larger stones slightly bend towards the chamber they might have been bridged by flat slabs. The superstructure of this type is not clear. While it seems, that UM0004 might have had a kind of outer ring wall at least preserved on its western side, relatively few stones were found in the immediate surrounding of UM0009, what might indicate, that these tombs were not very high.

#### Type 3:

UM0003, UM0005-8, UM0012 and UM0016 represent the third type of tombs in this area. These are very large circular structures reaching diameters of 6.00-7.50 m, while UM0007 and UM0012 are smaller, just having a diameter of 4.00 m.

Not all of these tombs, but at least some of them were erected on natural outcrops. Then the natural topographic features were integrated into the structure, giving them sometimes a slightly oval shape. The burial pits were dug down into the soil for some 50-60 cm, also using

the solid bedrock as floors of the chambers. They are mostly oval in shape and have an average diameter of 1.20 m. The chambers' walls were built of stones – their size differs probably according to the available material – or consist partly just of the dense natural gypsum or crystallised limestone layers, which made a stone setting unnecessary. After the deceased was placed in a flexed position into the chamber, it was closed by large flat slabs. Then large stones were set radial around the chamber and piled up until a certain height was reached. It is not possible to estimate their original height, but as the preserved bases are very massive, they might have reached a height of several meters and can therefore be regarded as real *tumuli*.

Taking into consideration the location of UM0003 and UM0005 on the most prominent natural feature of Area 1 and also UM0006 and UM0007 in its immediate vicinity, these *tumuli* should be regarded as burials of high ranked persons. This is also strengthened by the numerous objects still found inside the tombs despite of their obvious robbing. One might think of an area where maybe members of a ruling family etc had been buried.

#### Type 4:

This type is the most elaborate one and is just attested once in the area (UM0002). This circular structure has an outer diameter of 4.40 m, enclosing a thoroughly built inner circle surrounding the central chamber which had a diameter of 2.40 m. The outer ring consisted of medium sized stones, while the chamber's two faced circle was built of larger stones. The chamber was dug down for some 60 cm deep into the natural soil and was partly enclosed by stone settings and partly by the dense natural gypsum layer. The floor of this chamber consisted of a brownish mud-like layer under which an undisturbed stone cist (1.60 x 0.30 m) was found with a complete skeleton in stretched position, head to the north and face towards the east. One tomb with a central stone-cist was already excavated by the Japanese (Konishi et al. 1988, fig. 6), but in the mode of construction of the chamber as well as its superstructure it differs completely from UM0002. So far this is the only example of a tomb, where two chambers were laid out on top of each other.

Probably this type did not have a superstructure like the *tumuli* immediately located to the south of UM0002, as very few stones were found on this tomb. While it would be possible, that the piled up stones were removed to build up UM0003 or UM0005, one has the impression that this type just consisted of a raised chamber marked by an outer ring of smaller stones.

After this first campaign of excavation we are at least able to date some of the tombs. These are the tombs UM0003, UM0005 and UM0006, all of them of type 3. They all contained some datable objects. The sword and scabbard remains from UM0003, the soft-stone fragment from UM0005 and the potsherds from UM0006, indirectly complemented by the tiny glass-herd (cf. Whitehouse 1998, 2000) and the camel bones (cf. Vogt 1994) from the same burial, find their parallels in the Samad-Period in Oman, the Late Pre-Islamic Period in the Emirates, the Tylos period on Bahrain or the Hellenistic Period on Failaka – or, speaking in a broader sense, in **the Late Iron Age of the Gulf region, dating between 300 BC and 300 AD**. After the studies of the material from this campaign are finished, we should be able to date the material more precisely. All in all, this roughly confirms the dating given for tomb J-3B, excavated by the Japanese Mission (Konishi et al. 1994: 11-12), but which is of a completely different type.

Cautiously, this date should also hold true for the other tombs of type 3, but the dating of the other types is still unclear. As UM0004 was set between UM0003 and UM0005, clearly disturbing them, it should be considered to be younger, but this is just a relative dating as we do not know whether UM0004 was erected some years, some decades or some centuries after UM0003 and UM0005.

Hopefully, further research on the burial ground of ‘Umm al-Mā’ will shed more light on these chronological problems as well as on the question if the people there were nomads/semi-nomads or permanent settlers.

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## List of finds

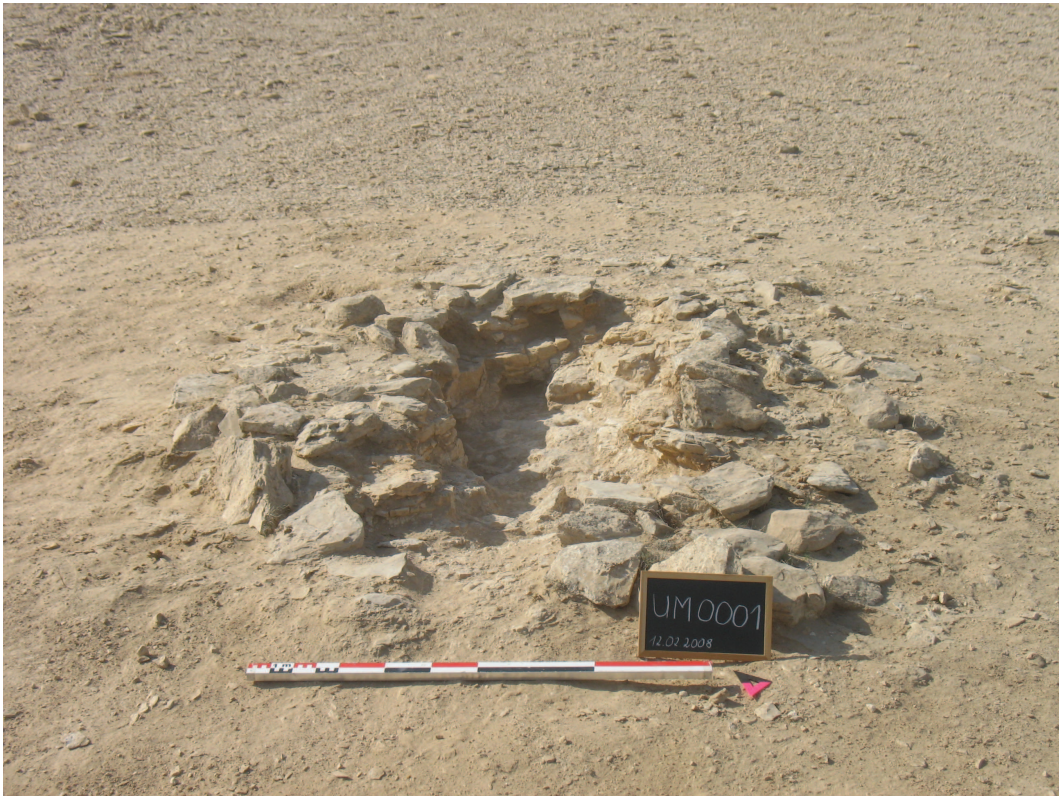
#	Tomb	Object	Description	Fig.	Pl.
1	UM0001	human bones	from the filling, very fragmented		
2	UM0002	human bones	from the surface, very fragmented		
3	UM0002	human bones	from the filling of chamber 1, very fragmented		
4	UM0002	skeleton	from chamber 2, complete and well preserved		
5	UM0002	brown textile	from skeleton, several fragments		15
6	UM0003	potsherds	four Islamic potsherds from the surface		
7	UM0003	shells	three complete and one fragment from the surface		
8	UM0003	human bones	from the surface, very fragmented		
9	UM0003	human bones	from the filling of chamber		
10	UM0003	bronze ring	from western edge of chamber above floor		
11	UM0003	iron sword	fragmented, from western edge of chamber above floor		27
12	UM0003	bronze sheet	fragmented, from western edge of chamber above floor		27
13	UM0003	bronze fittings	fragmented side fittings of scabbard, from western edge of chamber above floor		27
14	UM0003	bronze fittings	complete lower setting of scabbard, from western edge of chamber above floor		27,28
15	UM0003	buckle?	fragmented , of silver or lead, from western edge of chamber above floor		
16	UM0003	bronze object	fragmented, from western edge of chamber above floor		
17	UM0004	human bones	very fragmented, from the filling of chamber		
18	UM0004	potsherds	2 Islamic sherds of same vessel, from upper part of filling in the area of robber's hole		
19	UM0005	human bones	very fragmented, from the filling of chamber		
20	UM0005	shell	fragment, from the filling of chamber		
21	UM0006	carnelian bead	from cleaning the surface of tomb		14
22	UM0006	shells	several fragments, from cleaning the surface		
23	UM0006	snails	numerous, from cleaning the surface		
24	UM0006	potsherds	3 Islamic sherds of same vessel, from cleaning the surface		
25	UM0006	human bones	very fragmented, from cleaning the surface		
26	UM0005	human bones	Fragments of upper part of the body in situ, from north-eastern part of chamber on floor in situ		

#	Tomb	Object	Description	Fig.	Pl.
27	UM0005	bronze pin	complete but twisted, from area of upper part of the body but not in situ		29
28	UM0005	bronze object	2 fragments (pin?), from area of upper part of the body but not in situ		29
29	UM0005	soft-stone	2 rim-fragments of same decorated vessel, from area of upper part of the body but not in situ		29
30	UM0005	potsherd	green-glazed Islamic sherd, from filling above floor		
31	UM0007	potsherds	2 Islamic sherds of same vessel, from cleaning of surface		
32	UM0006	silver earring	from the filling		14
33	UM0006	bronze needle	eye of a needle, from the filling		14
34	UM0006	bronze button	fragments, from the filling		14
35	UM0006	bronze pin	three fragments, from the filling		
36	UM0006	shell	complete large cowri, from the filling		14
37	UM0006	shell	complete large cowri, from the filling		14
38	UM0006	shell	several fragments, from the filling		14
39	UM0006	shell	tiny worked cowri, from the filling		14
40	UM0006	shell pendant	complete, from the filling		14
41	UM0006	shell	complete, from the filling		14
42	UM0006	shell	small worked cowri, from the filling		14
43	UM0006	stone pendant	complete, from the filling		14
44	UM0006	lime stone bead	complete, from the filling		14
45	UM0006	Chalcedony bead	complete, from the filling		14
46	UM0006	frit bead	complete, from the filling		14
47	UM0006	frit bead	complete, from the filling		14
48	UM0006	stone bowl	complete (Onyx?), from the filling		14
49	UM0006	potsherds	of same carinated bowl, from the filling		14
50	UM0006	shells	507 sea-snails, from the filling		14
51	UM0006	human bones	fragmented, from the filling		
52	UM0006	camel bones	fragments, from the filling		
53	UM0006	bronze needle	2 fragments, below large slab of floor		14
54	UM0006	bronze buckle	complete, from the filling		14
55	UM0006	bronze button	fragments, from the filling		14
56	UM0006	glass sherd	tiny fragment, from the filling		
57	UM0006	carnelian bead	complete, from the filling		14
58	UM0006	stone bead	complete, from the filling		14

#	Tomb	Object	Description	Fig.	Pl.
59	UM0006	alabaster (?) bead	complete, from the filling		14
60	UM0006	lime bead	complete, from the filling		14
61	UM0006	crystal bead	fragment, from the filling		14
62	UM0006	shell	small worked cowri, from the filling		14
63	UM0006	shell ring	complete, from the filling		14
64	UM0006	shells	4 complete, from the filling		
65	UM0006	flint pebble	worked?, from the filling		14
66	UM0006	flint pebble	worked?, from the filling		14
67	UM0006	potsherds	2 fragments of same bowl?, from the filling		
68	UM0007	human bones	fragmented, from the filling of the chamber		
69	UM0007	bronze object	fragment (of bowl?), from the filling of the chamber		
70	UM0007	lime bead	complete, from the filling of the chamber		30
71	UM0007	potsherds	3 sherds of same recent vessel, from sediment above natural limestone south of chamber		
72	UM0009	human bones	very fragmented, from the surface		
73	UM0009	human bones	fragmented, from the filling of the chamber		
74	UM0009	bronze ring	complete earring, from the filling of the chamber		31
75	UM0009	bronze object	fragment (of bowl?), from the filling of the chamber		
76	UM0009	fish bone	vertebra, from the filling of the chamber		
77	UM0009a	shell	complete, from the filling of the chamber		
78	UM0011	shell	fragment, from the filling of disturbed chamber		
79	UM0016	human bones	few tiny fragments, from cleaning the surface		
80	UM0016	shell	very tiny fragment, from cleaning the surface		
81	UM0016	potsherd	sherd of a recent coarse ware, from the surface c. 1 m to the south-east of the tomb		
82	UM0016	shell	one sea-snail, from the filling of chamber		
83	UM0016	human bones	very few fragments, from the filling of chamber		
84	UM0065	frit bead	complete, from the surface		32
85	UM0065	frit bead	half preserved, from the surface		32
86	UM0065	frit bead	complete, from the surface		32
87	UM0065	frit bead	complete, from the surface		32
88	UM0065	frit bead	complete, from the surface		32
89	UM0065	shell	complete, from the surface		32
90	UM0065	potsherds	five sherds, sub-recent, from the surface		
91	UM0065	human bones	fragmented, from the surface		
92	UM0065	fish bone	one vertebra, from the surface		
93	UM0066	glass sherd	from the surface		







**Plate 1: UM0001 after excavation**



**Plate 2: UM0002 before excavation**



ERROR: ioerror  
OFFENDING COMMAND: image

STACK:

-mark-  
-savelevel-