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## Burials of Raqefet Cave in the context of the Late Natufian

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### INTRODUCTION

Human remains recovered from Raqefet Cave have long been associated with the of the Natufian culture in Levantine prehistoric researches. Although they are known, information of the discovered skeletons, structure of graves and the artefacts have never been published and the burials' chronological position within the Natufian culture has never been determined. Recently, research on the Upper Palaeolithic and Epipalaeolithic lithic assemblages of the cave revised the stratigraphy of the site based on documents and field work at the cave in 2004 (Lengyel in prep; Lengyel *et al.* this volume). This work made it possible to reevaluate the archaeological context of the Natufian burials of the cave. In addition to the archaeological reinterpretation, the human remains themselves underwent new anthropological analysis (Bocquentin 2003). Together, these recent studies allow the burials of Raqefet to be added to the corpus of information concerning the Natufian culture. The aim of this paper is to present these previously unpublished in their archaeological context and to add data concerning Natufian mortuary practices.

### RAQEFET CAVE

Raqefet cave is situated on the south-eastern side of Mount Carmel along Wadi Raqefet that flows north-west to south-east. The cave lies about 0.5 km upstream from the confluence with Wadi Yoqne'am that runs eastward into the Jezreel Valley, 3 km away (Fig. 1).

The cave is located at an altitude of 230 m above sea level and approximately 50 m above the wadi bed. It is on the left bank, facing west, at the bottom of a cliff. The slope from the cave to the wadi bottom is rocky and steep. In front of the cave there is a narrow terrace, immediately below the large entrance. Five chambers form the cave, among which the rear has an open chimney. The cave is 50 m long and its area is *ca.* 500 square m. At the front part of the second chamber, there is a large rectangular rock (*ca.* 5 m long and 2 m wide) lying in a north-south orientation (Fig. 2).



Figure 1: Location of Raqefet Cave and other Natufian sites of the Southern Levant.

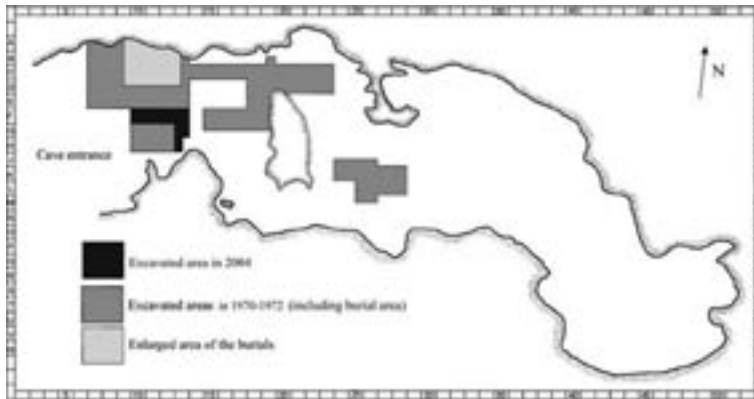


Figure 2: Map of Raqefet Cave.

The cave was discovered by Ya'aqov Olami in 1956. His survey in 1958 indicated that the cave was occupied in prehistoric and historic periods (Olami 1984). Fourteen years after Olami's discovery Tamar Noy of the Israel Museum and Eric Higgs of the Cambridge University conducted excavations in the cave (Noy and Higgs 1971) between 1970 and 1972. The excavation was limited to 75 square meters in the first and second chambers and the three inner chambers were left unexcavated. The excavated areas were labeled according to square coordinates: A-H/7-17, B-G/18-23 and J-M/24-28 (Higgs *et al.* n.d.). A short season of field work was conducted in 2004 (Lengyel *et al.* in press). Its objective was to verify the stratigraphy of Raqefet Cave and thus encompassed only a limited area (4 square meters) in the first chamber of the cave (Fig. 2).

#### STRATIGRAPHY OF RAQEFET CAVE

The best preserved sequence of layers was recovered in the second chamber in area B-G/18-23, near the large rock. The following numbering of the layers follows the division made by the 1970-1972 excavators (Higgs *et al.* n.d.), from bottom to top<sup>1</sup>:

The lowermost layers of this area (VIII-VI) contained highly abraded artefacts (Sarel 2004) which are the remains of geogenic disturbances caused by increased water activity in the cave. Layer V was almost sterile of artefacts. The three Upper Palaeolithic layers

<sup>1</sup> Please note that in Lengyel *et al.* in press the numbering of layers follows the 2004 field work division.

(IV, III, II) are characterized by regular and irregular laminations. On top of the sequence, stratigraphically beneath pit deposits, Layer I yielded artefacts of the Epipalaeolithic Kebaran culture. The uppermost deposits in stratigraphic order are pits which contained finds of Epipalaeolithic (Natufian, Geometric Kebaran), Neolithic and Bronze Age periods.

The sequence unearthed at the back of the second chamber in area J-M/24-28, was found to be severely disturbed. The layers of the third area, A-H/7-17, were also heavily disturbed by pits of the Pottery Neolithic and Bronze Age. Several undisturbed patches of Natufian deposits were, however, identified. During the 2004 fieldwork additional Natufian deposits were retrieved from bedrock mortars in the front chamber (Lengyel *et al.* in press).

#### LATE NATUFIAN PRESENCE AT RAQEFET

The present periodization of the Natufian culture in the Levant was made at the end of the 1970's and refined during the 1980's (Bar-Yosef and Valla 1979; Valla 1984). The Early Natufian (12,500BP-11,500 BP) is characterized by the strong presence of Helwan lunates (more than 50% among the lunates), the length of which is between 19-28 mm. In the Late Natufian (11,500BP-10,750 BP) lunates tend to be smaller (15-20mm) and Helwan retouch appears on less than 50% of the lunates. In the Final Natufian (10,750-10,250 BP) the Helwan retouch is nearly absent and the size of the lunates is generally small, 13-15 mm (Valla 1984, 1987).

The lunates of Raqefet Natufian, on the basis of their typology and size, can be assigned to the Late Natufian (Lengyel in prep.; Lengyel *et al.* in press;) (Fig. 3). Two radiocarbon dates obtained in the 1970's ( $10\,980 \pm 260$  uncal BP, I-7032;  $10\,580 \pm 140$  uncal BP, I-7030) were often associated with the Late Natufian occupation of the sites. However, as they derive from disturbed deposits they probably are unreliable. The first date, though,

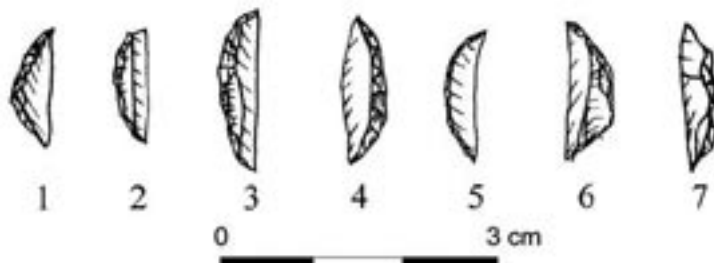


Figure 3: Late Natufian lunates of Raqefet.

obtained from a bone sample taken from a Natufian pit, might refer to a Late Natufian site occupation.

## THE BURIALS OF RAQEFET CAVE

Isolated human skeletal remains were found exclusively within Epipaleolithic and Neolithic deposits. Burials were discovered in the first chamber in an area that begins at the north cave wall and extends to the south-west almost to the middle of the chamber (Fig. 2). The cave floor in this area contains a number of basins and solution cavities. The burials were identified as Natufian (Higgs *et al.* n.d.; Noy and Higgs 1971).

In order to describe the Natufian graves of Raqefet we used two complementary information sources: on the one hand the field notes, maps and pictures, and on the other hand the human remains themselves. Sex and age determination was part of an extensive study on the Natufian population (Bocquentin 2003). The reference numbers we give here follows the discovery order of the skeletons.

### Grave H1

The first skeleton (H1) was found in squares D/12-13, south of the rock cavity, during the first season of excavation in 1970. The bedrock drops steeply in these squares. The skeleton did not lie directly on the sloping bedrock surface; a thin yellow layer was found between the burial and the bedrock. The area around the skeleton was intensively disturbed by two pits which contained potsherds of later periods.

H1 remains belong to an adult female, older than 30 at death. No notes mention the state of articulation of the skeleton or its position. The only available data on the grave structure concerns a stone placed against the head. The only picture taken of this burial (Fig. 4) does not provide enough information to clarify the grave structure and content. In the current collection, only parts of the skull (frontal bone; right zygomatic bone; right temporal bone; small fragment of the right ramus of the mandible) can be attributed with some certainty to the same grave. Other bones (part of the right clavicle, scapula, humerus, coxae and patella and a few bones of hands and feet) found without labels in the collection, may also be part of this individual according to their taphonomical and anatomical features.

### Grave H2

The second skeleton was found near the entrance in squares B-C/10-11 against the north wall of the cave, embedded in a yellow deposit in the western half of the bedrock cavity. The filling of the grave was undisturbed. The skeleton was found under a mound of large stones. On top, in the middle of the stone pile, above the chest and skull a capstone was



Figure 4: H1 during excavation in 1970. Picture's upper frame is to the north.



Figure 5: Stone covered burial area of H2 and H3 near the cave wall. North view.

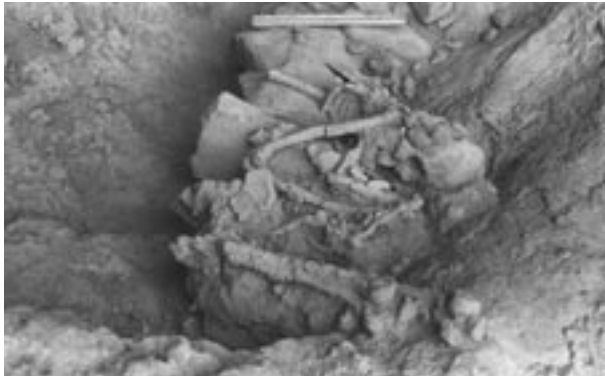


Figure 6: H2 on the stone structure in the badrock basin. East view. Scale 30 cm.



Figure 7: Over view of H2. Scale 30 cm. Head points south.

placed (Fig. 5). The corpse was lying on standing stone slabs aligned in an east-west direction filling up the basin (Fig. 6). The stone structure was found separated from the underlying bedrock by a hard red layer.

This is the grave of a mature woman (>30 years old). The bones remained mostly in anatomical articulation. The skeleton lay in an east-west direction, head at the east, on its left side in a flexed position with the right hand placed close to the face. The head and the knees rested against the south wall of the cavity. The position of the cervical and thoracic vertebrae (Fig. 7), suggest that the upper part of the back was initially in an upright position, obviously maintained by either sediment or perishable rope or structure.

The skeleton is fragmentary but the bones present in the current skeletal assemblage correspond well with the photographs taken during excavation. The state of preservation of the bones is poor and they were highly calcified. The burial was excavated in two stages. The lower parts of the legs were unearthed in 1970, while the rest of the skeleton was removed in 1972. Unfortunately the legs, removed during the first campaign in 1970 (feet, tibias and fibulas), are missing.

### Grave H3 and H3a

The third grave was found in square B/12 beneath the overhanging cave wall, not far from H2 (Figs. 8, 9). The skeleton belongs to a child aged between 8 and 12 years old at death. The grave contained numerous Bronze Age potsherds indicating a later disturbance. As in the case of H2, the excavators mention that a capstone was placed above the skeleton. According to the excavation documents this can not be confirmed either by the pictures

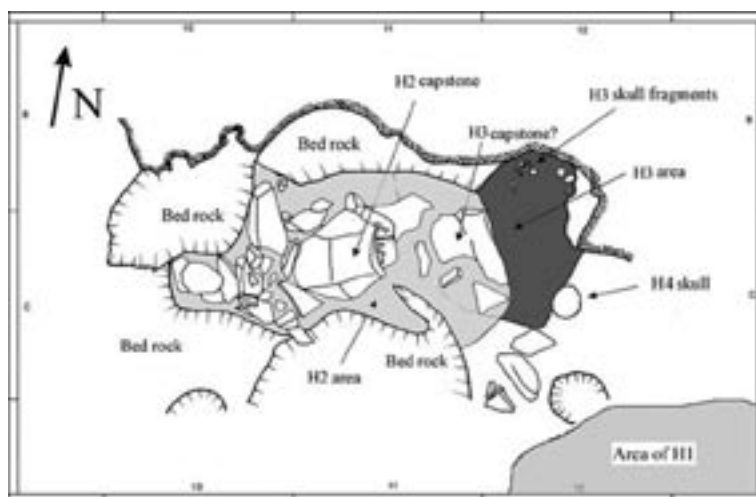


Figure 8: The burial area.



Figure 9: Remains of H3 on the stone structure. Scale 30 cm. North view.



Figure 10: Burial area with the cup-marked stone placed under H3. Scale 1 m. Photo of the 2004 fieldwork archives. Arrow points north.



Figure 11: Close-up picture on H3. Scale 30 cm. The picture's right side is to the south.



taken at different steps of the excavation, or by the drawings since the stone marked as “capstone” (Fig. 8) was clearly found stratigraphically lower than the bones of H3. Moreover the later disturbances of the grave exclude the possibility that H3 was covered by an original Natufian structure at the time of excavation. H3 was found directly on a stone bearing a cup-mark which was part of the stone-lined structure filling the cavity in the bedrock (Fig. 10).

According to the excavators and the documents the skull, ribs and vertebrae remained in anatomical articulation and the skeleton was lying on its right side (Higgs *et al.* n.d.) (Fig. 11). The skeletal remains, although very fragmented possibly due to later disturbances, suggest that the grave originally contained a primary burial. Part of the skull is preserved as well as the right half of the mandible, part of the upper body (left clavicle and scapula; humerus; vertebrae and ribs; sternum; hand bones) and fragments of pelvis and femur. A few additional bones belonging to a younger child (H3a: 4-5 years old) were found also in this grave.

### Isolated Bones in C/11

After removing the stones beneath H2, fragments of long bones were exposed in a red hard layer covering the bedrock (Fig. 12). These consist of a pair of robust tibias and fibulas. The bones are highly calcified and crushed. The longitudinal pattern of the fragmentation

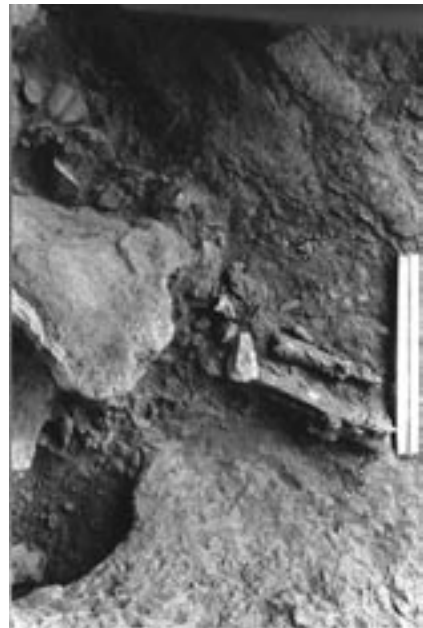


Figure 12: Isolated bones under the stone structure in the bedrock basin. Scale 30 cm. Picture's lower frame is to the south.

and the fact that the calcareous concretion penetrated inside the bone grooves indicate that the bones were crushed not long after death. This case is not unique in a Natufian context and may suggest that the corpse was directly covered with stones. The excavators argued that these bones belonged to H3. However, these are adult long bones which are not in accordance with the fact that H3 was a child. Moreover, they were stratigraphically separated from H3 being laid beneath the stones placed under H2 and H3. Most probably, these isolated long bones belonged to a skeleton the parts of which were either removed or are still *in situ* in the unexcavated parts of the hard red layer. The latter alternative is more plausible since a piece of an adult long bone was found during the 2004 season in the same hard red layer under the cup-marked stone. Nonetheless, at present, neither the field documents, nor the osteological inventory are clear enough to determine whether it was a primary or a secondary burial.

#### **Grave H4**

The remains of H4 were found in square C12 near H3, at the western end of the bedrock basin with two canines of wolf or fox (Fig. 8). Unfortunately, the features of the embedding layer are not mentioned in the documents. According to the documents only the skull, which was crushed but nearly complete, was removed (Higgs *et al.* n.d.). However, other bones, preserved in good condition, were also recovered: the upper part of the body is almost complete including the hand bones and all the epiphyses, indicating a primary burial. In addition, a few fragments of the lower limbs and the complete right foot are also present. The skull and the skeletal parts correspond well anatomically to each other, showing that they belong to the same individual, a young 13-15 year-old adolescent. The composition of skeletal remains suggests that the corpse was laid on its back in a tightly flexed position, with the knees brought to the thorax. A similar composition of skeletal parts can be found in eroded graves where the lower limbs, the highest elevated bones in the grave, are missing and only the upper part of the body and the feet remained at the bottom of the burial pit (see for example Valla *et al.* 2004).

#### **DISCUSSION AND CONCLUSION: LATE NATUFIAN FUNERARY PRACTICES AND THE RAQEFET BURIALS**

The inhumation of corpses in flexed positions on either their side or back at Raqefet Cave are typical to the Natufian. Even in cases of fragmentary skeletons and poor documentation, the osteological inventories clearly show that these are primary burials since some very small bones are present in the bone collection.

More than 80 Late Natufian burials are known to date. Most of them were recovered at Mallaha (Eynan) (40 individuals) (Perrot *et al.* 1988) in the Upper Jordan Valley and

at Hayonim (22 individuals in the cave and 9 on the terrace) in the Galilee (Belfer-Cohen 1988; Valla *et al.* 1991). To this list the burials of Nahal-Oren might be added, but not all the 44 individuals are clearly dated to the Late Natufian (Noy 1989, 1991). Late Natufian burial sites containing smaller number of individuals were found at Shukbah Cave (Garrod and Bate 1942; Weinsten-Evron 2003), at el-Wad Terrace (Garrod and Bate 1937) and more recently at Hilazon Tachtit cave (Grosman 2003).

Generally, the Late Natufian burials display a combination of both regional tendencies and local customs. In the Carmel and Galilee, graves and habitations continue to be associated to some extent. On Hayonim terrace the graves and habitations seem to be interstratified. In Hayonim Cave, at Nahal Oren and at Mallaha they are, most of the time, separated (Valla 1995) and the term of "cemetery" seems fully justified in these contexts.

Although the burial customs of the Late Natufian are varied, as in the Early Natufian, the dead are no longer buried with ornamental elements, and one can detect a degree of standardization of the practices. This is particularly clear at Mallaha where the dead from the Late Natufian period were more often buried in collective graves. These graves were reopened from time to time in order to bury additional dead. These collective graves are remarkably standardized: rounded, (partly) plastered, shallow and their diameter is about 1 to 1.20 m. There is a tendency to group children together in specific graves, separately from the adults. Children younger than one year-old, however, are not included in these graves. They were probably buried out of the site. In Hayonim Cave, the Late Natufian is also characterized by a standardization of funerary treatment. Deceased are grouped together in graves containing up to four but, in each grave, there is only one primary burial and the other individuals are represented by a few bones that indicate secondary burials. This means that, periodically, a new death brought the opportunity to regroup the previous dead in a communal grave.

During the Late Natufian, post-mortem bone removals, mostly but not exclusively of skulls, becomes frequent (Belfer-Cohen 1988). The earliest evidence for skull removal can be found in the Early Natufian graves of Erq-el-Ahmar. This custom does not seem to be present in all Late Natufian communities, although it is specific to a few of them, such as Hayonim Cave. A few similar examples are also known from Nahal-Oren but, as mentioned above, the Late Natufian determination of all the graves is uncertain.

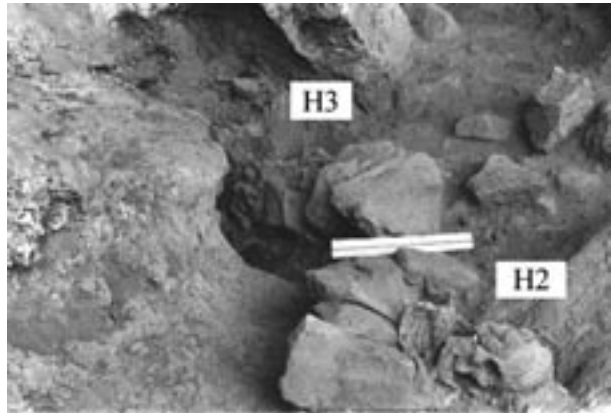
At other Late Natufian settlements such as Shukbah, el Wad, and Raqefet, single primary burials dominate, whereas in the general picture of the Late Natufian these represent only 22 % of the cases (*versus* 49 % during the Early Natufian) (Bocquentin 2003). It seems that at the above mentioned sites, an organized, long-term burial area was not planned in advance as was obviously the case of Hayonim and Mallaha. Either the size of the community, the duration of occupation or different traditions may have been

determining criteria in burial area organization. Although at Raqefet the burials are single and individuals were buried separately, some of the graves are not strictly independent from each other. Two (H2, H3) and probably three (H2, H3, H4) individuals were placed together inside the same basin of the bedrock devoted to burials.

Late Natufian graves are not frequently associated with stones. Most of the dead were buried in a simple pit dug in the earth (Byrd and Monahan 1995). Therefore, the stone structure of the Raqefet Late Natufian burials is unusual. Hilazon Tachtit is the only Late Natufian site where a similar feature, placing the corpse above large stones, is described (Grosman 2003). More frequently, after the burial of the corpse, graves were covered or surrounded by stone slabs, standing stones or a pile of stones. Such covering of the grave may have been intended to protect it, mark it or to hold the corpse in a specific position. In a few cases, however, more complex grave structures were built. The plastered pits from Mallaha and the graves of Hayonim (mostly inside the cave) are the most elaborate examples for this complex grave structure (Belfer-Cohen 1988). At Hayonim, real coffins of stones were built which represent a unique feature of the Natufian and may be interpreted as a local custom. These elaborate grave structures at Hayonim are more frequently linked with complex funerals (skull removals or secondary burials) and increased during the Late Natufian period.

Having surveyed the Late Natufian funeral practices it can be stated that there is no overall way of treating dead and exercising burial customs. Although a standardization of the funeral practices can be observed at the major burial sites of Hayonim and Mallaha, other sites demonstrate inter-site variability. The varied practices throughout the Late Natufian period may be observed at Raqefet, concerning the changing use of stones in frequency and modality. At the bottom of the bedrock hollow long bones were found in a red layer (isolated bones of C11). Clearly, these bones belong to the earliest burial level of the cave. This shows that first the bedrock basin, a natural or artificial pit was used empty to bury dead, which was probably covered by stones. Before the burial of H2 and H3, the basin was filled up with stones. The stone filling was deposited in a west-east direction (Fig. 13) and might have been made in order to level the elevation differences between the bottom of the basin and its rim, or to separate the earliest burial from H2 and H3. H2 certainly and H3 probably was laid on the side in flexed position. H2 was unquestionably covered by stones. This question concerning H3 is open due to post-Natufian disturbances. These skeletons represent a later phase of the Raqefet burials, which was more involved with using stones systematically. The stratigraphical correlation between H2, H3 and H4 cannot be made since information on the embedding deposit of H4 is missing. Stratigraphically H1, which was found overlying a yellow layer associated with the yellow filling of H2, is later than H2 and H3. Accordingly, this is the latest dead in the cave (at present knowledge), and it was not covered by stones.

Figure 13: H2 and H3 on the structure. Scale 30 cm. North is to the left.



The five graves discovered so far at Raqefet do not show strict relation with the burial practices of the largest burial sites of Galilee. Raqefet funeral practices are closer to those of Nahal Oren (Noy 1989) and El-Wad (Garrod and Bate 1937) where burials are mainly single and primary and may have been related to a more specific Mont-Carmel tradition.

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