

Skull Removal Practices in the Near East Neolithic of Tell el-Kerkh, Syria

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研究ノート

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Near Eastern Neolithic societies conducted various mortuary practices relating to veneration of the dead and an ancestral cult. These traditions were also practiced by resident individuals in different Levantine settlements. Removing the skull and other secondary treatment of the body and mandible (whole skull or cranium), decapitation, and body dismemberment all appear in this period, reflecting the many mortuary practices according to people's understanding about life after death. Very little research, however, has focused on the notions

of headlessness and decapitation. Skull removal started in the Natufian and Pre-Pottery Neolithic A (PPNA) and continued in later periods until the Pottery Neolithic (PN). The Tell el-Kerkh Neolithic cemetery in Syria produced two primary burials without skulls and many skull deposits, which lead us to evaluate the reasons why these practices continued along with intact primary burials. This paper presents details about these two cases and attempts to explain the practice of decapitation during the Pottery Neolithic period.

Introduction

Mortuary practices provide us with evidence about standard methods of dealing with a corpse, and especially how the skull was treated after death. Neolithic burials in the Levant showed great variability in mortuary practices. Concerning primary burials, various patterns of body position were recognized: flexed, extended, supine, prone, or one side facing down. Various orientations of the head, and in some instances the bodies, were evident, but in other burials, the skull was removed and treated separately, with the facial features having been reconstructed. Removing skulls, decapitation, painting, skull dismemberment, plastering, scalping, and skull caching were all methods adopted by communities of the Near East as secondary mortuary practices. Secondary burials "occur more often in the Late than Early Natufian, and are interpreted as evidence of increased group mobility" (Bar-Yosef 1998 : p. 164). They often consist of just long bones and skulls. Removal of the skull from the body and redeposition of the skull were widely practiced in the Levant.

There are numerous ethnographic studies reporting that skulls of the deceased are often revered, consulted, and placated. These practices were applied to both males and females and there are a number of indications that the skulls were removed postmortem after some time had passed or after the flesh had decayed on the mandible, in some cases. Afterwards, the skull was carefully and sensitively remodeled with plaster to rebuild the facial features. Various types of shells, either cowries or bivalves, were set into

the empty holes in the face to represent the eyes, and the skull was decorated with red and black paint to show individual characteristics such as hair. The mortuary practice of skull removal appeared in the Natufian period for the first time. This secondary burial custom then continued into the Neolithic. "This custom has been considered to be an element of an ancestor's cult, denoting ownership and emotional ties to a locality, and implying the existence of defined territories" (Belfer-Cohen 1991 : p. 171).

On the other hand, some skulls were removed and separated from the body before they decomposed. For example, there is some evidence of cut marks on the cervical vertebrae from using sharp flint tools in some Pre-Pottery Neolithic A (PPNA) sites like Çayönü (Erdem 2006) in southeastern Anatolia and Tell Qaramel (Kanjou, Kuijt, Erdal, and Kondo 2013) in the northern Levant.

Decapitation can be noted as a skull removal practice too, however, it shows a different pattern. If we would define decapitation as a pathology, there must have been cut marks on the cervical vertebrae, caused by separating the skull from the body with a sharp tool. The middle cervical vertebra is the most frequently affected area for cut marks, although they can also be observed on the skull base and mandible. "As is true in other parts of the skeleton, it's not easy to determine whether lesions assigned to the per mortem period were inflicted pre-mortem or post-mortem. Surprisingly, expectations that the mortuary context will provide clues to the special social status of the decapitated individual frequently are not fulfilled, especially those of the skull and mandible, often mimic post-mortem erosive alteration" (Aufderheide and Rodriguez-Martin 1998 : p. 29).

In general, this paper presents the earliest evidence of skull removal as a kind of funeral practice. It also considers how the skull was separated from the rest of the corpse and treated as the most important part of the body by ancient people, since it appears that they believed that the skull is the center and origin of the spirit's power.

The history of skull removal

Examples regarded as ancestor veneration rituals are numerous, including burials beneath the house floors, displaying or caching of skulls, modeling faces on skulls, or using schematic statuettes and figurines in houses and wall paintings. The Natufian, PPNA, PPNB (Pre-Pottery Neolithic B), and Pottery Neolithic (PN) periods provided examples of special treatments and displays of skulls. They also yielded the best evidence of ancestor veneration, which has widely been interpreted as representing an ancestral cult.

Natufian people buried the dead in their settlements either inside residences or in outside graves. Sometimes the graves held a single individual, or in other cases several people. The Early Natufian provides a wealth of mortuary evidence unprecedented in the Levant. The earliest evidence for skull removal can be found in the Early Natufian graves of Erq el-Ahmar in the Judean Desert, where "a group of human skulls was recovered from the rock shelter" (Boyd 2006 : p. 167)¹. However, 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 (Nadel and Hershkovitz 1991 : p. 634), where a fragmented femur and isolated teeth were observed.

The concept of and focus on the skull, including skull removal, took place in the Early and Middle Natufian periods. Even with the lack of information and evidence providing us with a clear understanding of this practice executed after death, it seems that Natufian people believed in worshiping and revering their dead ancestors. For this purpose, they always attempted to keep their ancestors close by and feel the spirit and power represented by the skull, which apparently represented that particular person.

During the Natufian periods, the dead were buried in their living places, such as underneath the floor and between foundations. The use of distinct cemetery areas appears to have ceased in the late Natufian, and burials were placed in abandoned structures for the first time at many sites. Postmortem bone removal involving more than the skull had been observed frequently during the Late Natufian. Excavations at Raqefet Cave in the southern Levant observed the skull, ribs, and vertebrae remaining in anatomical articulation and the skull was also crushed and removed.

Excavations at Raqefet Cave in the southern Levant exposed 29 skeletons (Nadel et al. 2013). All but one are clustered in a small area (ca. 15 m²). Although it is not suitable for all Natufian contexts, the term "cemetery" seems justified here, because frequent, repetitive interments took place at a specifically dedicated location, probably over at least several generations. Two skeletons were found lying on their backs, parallel to each other with their elbows juxtaposed. "One was a 12- to 15-y-old adolescent (Homo 28) placed with the knees folded to the left. The skull was ritually removed from the grave at later time, after flesh decomposition. Homo 28 has been directly radiocarbon dated to 12,550–11,720 Cal. BP Homo 25 was an individual over 30-y-old placed with his knees folded to his right. This individual had a stone slab set vertically behind the head, which was facing upwards. The head and slab were naturally dislocated in the grave and fell on their side, after body decomposition" (*ibid.*, pp. 11774–11775).

Late Natufian Hayonim Cave in the southern Levant yielded only secondary burials containing mandibles and axial bones (Belfer-Cohen 1988). In the case of grave XIV, it gave the impression of a collective burials grave, or a secondary burial; the number of axial bones was too small to match the three adult mandibles from the grave. Moreover, some of the axial bones belonged to a child who was not represented by cranial parts. "It is noteworthy that: while all primary burials from the earlier graves (I, III, VI, VII, VIII, IX) retained both the skulls and the axial bones, the primary burials of the last Natufian

1) Evidence from the Kebara 2 site in the southern Levant as far back as the Mousterian period shows individual (KMH2) lacking skull and some other bones (Bar - Yosef et al. 1992).

occupation (Graves X, XI, XV) contained only mandibles and axial bones, the only exceptions were H.39 (Grave XVI) and H.34 (Grave XII)" (*ibid.*, p. 300).

The grave was opened after the flesh had decomposed, probably two or three years after death. The skull was then removed without the lower mandible during decomposition. In cases where the mandible was usually found in the grave with the rest of the body, the grave was a simple structure showing a lack of interest in preparing the floor and wall in particular. The skeletons were placed on their backs or sides in semi-flexed or flexed and extended positions. Some cultural changes took place in the Late Natufian, and evidence indicates that people adopted a more sedentary life. The appearance of individual and secondary burials in the Late Natufian reflects the social cohesion and collective within the community over the individual, rather than an indicator of increased settlement mobility due to environmental or subsistence resource variability (Kuijt 1996). "I define secondary mortuary practice as a social act focused on the regular and socially sanctioned removal of objects, pieces, or all or part of a deceased individual from some place of temporary storage to a permanent resting place" (*ibid.*, p. 316).

The mortuary practice of skull removal has been extensively researched by archaeologists of the Natufian and Neolithic periods but a full understanding of this practice has not yet been explored. In some cases, the skulls were removed and cached separately in an effort to confirm the skull's importance and demonstrating the correlation between the deceased's past identity. It is clear that skull removal was common in the Late Natufian and PPNA and that a discrepancy exists between the numbers of postcranial skeletons and skulls recovered in excavations (*ibid.*, p. 322). In the southern Levantine site of Netiv Hagdud, a low mound situated at the outlet of Wadi Bakarín, a shallow burial pit was excavated in which the corpse was placed in a semi-flexed or entirely flexed position (Bar-Yosef 1991). Adult individuals were found without crania but the mandibles were present. Skeletons of children under the age of ten were complete. One of the individual's isolated skull was found in a dumping zone, and the remains of at least three others were recovered in Locality 8 (*ibid.*, p. 412).

The transition from the PPNA to PPNB in the Levant was accompanied by an increase in settlement size and developments in building designs and mortuary practices, especially regarding skull treatment. The dead were usually buried in their house beneath the plaster floor, and the skull was removed and preserved regardless of the individual's gender. After the body decomposed, the skull, or at least the cranium without mandible, was removed from the burial. Many of these skulls have been found grouped together during excavations. Some of the caches contained skulls that had been painted and/or plastered.

"The term 'plastered skull' is commonly applied to both skulls that were plastered and to crania that were plastered to look like skulls in which the lower jaw was re-created in plaster" (Bonogofsky 2003 : pp. 1–2).

During the Early PPNB at Tell Qarassa in western Sweida in southern Syria, skull removal was documented in several primary burials along the building walls, and a deposit with two skulls was found

(Ibáñez et al. 2010).

Evidence of plastered skulls during the PPNB at Jericho was found beneath the plastered floor. A skeleton was found intact but without the cranium, while the mandible was displaced and lying nearby (Kenyon 1954). A group of portrait heads was discovered in 1953. These heads were based on human skulls, on which the features were restored in plaster. The tops of the skulls were left uncovered, but the face and jaw were completely covered and each head had a unique individuality (*ibid.*, pp. 107–108).

Anatolian sites have also yielded many examples of skull removal. A structure of 2 x 2 m at the northern end of the “skull building” at Çayönü Tepesi was divided into three small chambers (Loy and Wood 1989). These contained more than 90 complete and partial human skulls. Even though several cut marks had been noticed on the second vertebrae (axis bones), there is no clear evidence of the regular decapitation of skulls. This can be considered as evidence of a ritualistic or mortuary function for the “skull building” it may have also involved some form of dismemberment (*ibid.*, p. 452).

Burials at A'in Ghazal show a wider pattern of mortuary cult during the PPNB, including decapitation, separate caches, and plastering of skulls (Rollefson, Simmons and Kafafi 1992). More than 100 identifiable human burials have been recovered and the burial circumstances show important changes in family and community ritual during the settlement's Neolithic occupation. Differences in the numbers of retrieved skeletons from different phases of occupation are only partly reflective of the comparative areas/volumes of sediments excavated. Additionally, there has been some disturbance of burials in portions of the site, where later interments have displaced earlier ones. This has hampered a clear understanding of the precise nature of mortuary patterns at A'in Ghazal. The Middle PPNB skull removal occurred after initial burials, and in contrast, about one third of adolescent/adult Middle PPNB burials were found in trash deposits in a variety of postures, always with the complete skull present. This may suggest a distinction in respect paid at the time of death (*ibid.*, pp. 461–463).

Excavations in 1984 recovered the skulls of twelve individuals (probably females) beneath the floors of the house in Square 3083/3283. They show evidence of decoration using red liquid and traces of a black substance, perhaps bitumen dating to between 7250 ± 110 BC and 7100 ± 80 BC (Rose, Schmandt-Besserat and Rollefson 1998). The entire face, top of the skull (frontal), maxilla, and mandible were all missing. The open state of the sutures indicates that the skull belonged to a young adult (15–30 years). On some parts of the bone surface were the remains of a light liquid wash (light red), and within the red coloring there were numerous (many hundreds) random small scratches that did not severely impact the bone surface, as if the skull were colored with a “crayon” containing small particles of sand (*ibid.*, p.100).

The major changes from the PPNB to the Pre-Pottery Neolithic C (PPNC) in terms of burial customs (as seen at A'in Ghazal) can be summarized as follows: “(1) The custom of skull removal, which was the norm in the PPNB, almost disappeared in the PPNC. With it disappeared the custom of

skull treatment (e.g., modeling, deformation); (2) Burials under lime-plaster surfaces, a standard PPNB custom, disappeared in the PPNC; (3) Group burials in the PPNC are mainly primary and limited to three individuals at the most” (Galili, Gopher, Eshed and Hershkovitz 2005 : p. 16). Although subfloor burial remained common, the skulls were always found articulated with the skeleton, leading to the conclusion that the “ancestor cult” of the PPNB period had been altered considerably, if not been abandoned altogether. On the other hand, one isolated adult male skull was found on a PPNC house floor, indicating that decapitation may still have been practiced, but for unknown reasons (Rollefson, Simmons and Kafafi 1992 : pp. 461–463).

In the following Pottery Neolithic period, the graveyard or what can be called a cemetery, appeared for the first time. Individuals were not only buried under the building floors and wall foundations, but also outside the living area, which was used only as a place for burying the dead (males and females of all ages). They were buried on their backs or sides in flexed, semi-flexed, and expanded positions; and in simple, shallow pits individually or in groups, in cremation pits, and even inside a pottery jar, accompanied by grave goods. Funeral practices regarding skull removal have been noted in some PN sites in the Levant, where they had almost disappeared at the end of the PPNB and PPNC periods.

In the upper Balikh Basin in north-central Syria, the Tell Sabi Abyad graveyard showed evidence for adult burials resembling those of children in combination with intentional skull removal or the burning of buildings (Akkermans 2008). One grave contained the primary remains of an adult placed in a crouched position on its side but the head was missing (*ibid.*, p. 626). It seems that the skull was removed some time after interment of the corpse. The other example is an adult burial with evidence for skull removal that looks mysterious in several ways (*ibid.*, p. 626). This burial belonged to a male, aged 26–35 at death, laid on his right side in the grave. The skeleton was in a strange anatomical position within the grave, with the skull lying at an odd angle to the spinal column, and the face pointing downwards. The vertebral column was complete, except for the missing cervical and upper two thoracic vertebrae. Thus, it seems clear that the skull had been separated from the body, and then later placed in the grave. “The head may have been cut off prior to interment by means of a rather blunt tool crushing the neck vertebrae, which could explain their absence in a practical sense but which fails to explain the complete lack of cutting traces on the remains that were left. Alternatively, the grave may have been reopened at a time when decomposition of the soft tissue was complete, after which the skull and the topmost vertebrae were taken out, leaving the rest of the skeleton untouched. Subsequently the head was replaced in the grave. In either scenario there is evidence for a secondary mortuary ritual” (Akkermans 2008 : p. 626).

Why the skull?

The skull was of great interest in ancient societies since the beginning of human settlements until

the late phases of the Roman period. However, despite the intensive research on this topic, there is to date no specific answer or clear explanation about why the skull holds such importance. In addition, why did ancient people provide special care for the skull more than other parts of the body? The fact that a body is found without the head or the head without the body only indicates that the head was specially handled for some purpose (Jacobi 2007 : p. 307).

It had been treated in various ways according to the society's background and symbolic beliefs and the understanding of the skull's importance to them. The skull has been removed from graves, decapitated, cached, decorated, plastered, and defleshed, among other practices. These practices varied between societies and developed from one period to another. They also reflected the beliefs and ideas of ancient people, and how they began to regard and think about life after death. This indicates the emergence of manifestations of religious life and beliefs of worshipping and venerating one's ancestors. The head (skull) had been treated carefully as the most important part of the human body. Many burials from the Natufian and Neolithic period in Anatolia and the Levant were excavated with missing heads and the entire skull was removed in different ways. In the case of skull removal immediately after death, it was detached using sharp stone tools. In the case after flesh decomposition, the skull was merely removed by hand. Crania of the deceased were placed in a range of contexts: public and visible areas such as courtyards and large special-purpose buildings, or slightly less accessible locations such as niches in inhabited caves; and more private and hidden locations such as the subfloors of houses (Talalay 2004 : p. 151). It seems to reflect a feeling that the ancestors are always close to them and would provide support and protection.

Regardless of whether the skull was removed following soft tissue decomposition or it was severed before burial, the head becomes a form of material culture (Bonogofsky 2011 : p. 4). On the other hand, the treatment of the skull became wider than the concept of an ancestors' cult. It became a visible symbol above ground as a protective god facing enemies and evil spirits, a symbol of victory against enemies, and protection of the settlement. Heads procured after battle or in head-hunting usually underscore the importance of valor, bravery, and manhood, providing societies lacking hereditary rank with a system of social prestige (Talalay 2004 : p. 156). The head of an ancestor or enemy could serve as a symbol of prestige, bringing both resources and protection to a village. Family members, leaders, mourners, and victorious warriors were among those with a vested interest in how the body and the head were treated. The skull functioned as both a physical and social object, and even under certain conditions, as a subject of investigation (Bonogofsky 2011 : p. 16). "The head can present the person him/herself, and even the body identifying one from others, and it's unique in that it can draw the character and identify the personhood during life and even after death" (ibid., p. 16). One reason for the prominence of the human skull in ancient societies (and in the archaeological imagination) is the way in which the head and face identify a person his or her lineage, age, sex, and gender. The distinctiveness of the head through its face

distinguishes it as the seat of personhood, character, individuality, ancestorhood, and consciousness.

The skull as a study subject has vast potential. Most research on this topic cannot cover the whole concept and exact reasons for this practice or why the head (skull) is treated differently from other parts of the body. The previous pages presented a summary of general ideas about mortuary skull practices in ancient societies. The following section presents one of these practices during the Pottery Neolithic period at the site of Tell el-Kerkh, northwest Syria.

Tell el-Kerkh

Pottery Neolithic settlements in the Levant have shown a wide variety of handling deceased individuals. This was a period of complex human technology in prehistory, and many developments emerged at this stage. They indicate the growth of awareness and the ability to live independently, as well as the abilities to produce food, tools for daily life, and adorned artifacts. These accompanied other developments that involved handling the dead in human settlements.

The author will discuss two examples of missing skulls that were discovered in the Neolithic cemetery of Tell el-Kerkh during the 2009 excavation season.

Since 1997, experts from the University of Tsukuba and the Directorate-General of Antiquities and Museums of Syria have been excavating a large Neolithic settlement at Tell el-Kerkh, located in the



Fig.1 General map showing the location of Tell el-Kerkh and other sites involved in the text

southern Rouj Basin in northwest Syria (Fig.1). The site consists of three contiguous artificial mounds: Tell el-Kerkh 1 and 2, and Tell Ain el-Kerkh. Although Neolithic material was collected from all three mounds, Tell el-Kerkh 1 is densely covered with later cultural deposits, while Tell el-Kerkh 2 and most of Tell Ain el-Kerkh are purely Neolithic mounds (Fig.2). Therefore, the excavations concentrated at Tell Ain el-Kerkh (Tsuneki 2011 : p. 83). More than ten seasons of excavations revealed that the Neolithic settlements at Tell el-Kerkh not only cover a vast area of around 16 ha, but also show signs of being a complex society, which included communal storage, craft specialization, advanced technology, long-distance trade, concepts of ownership, ritual practices, and personal property (Tsuneki 2007 : p. 8; Tsuneki 2013). One of the most important discoveries was a Neolithic cemetery recovered in Square E271 during the 2007 excavation season. It represents a true cemetery, located next to a habitation zone of the Rouj 2c

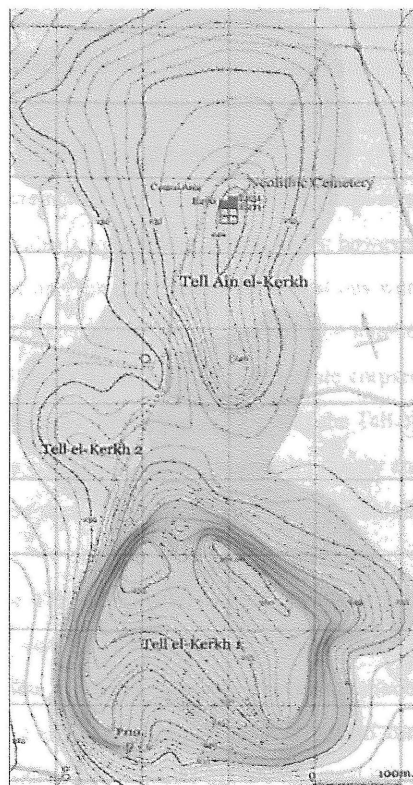


Fig.2 Map of Tell el-Kerkh (Tsuneki 2011)

settlement, dating to between 6600 and 6000 cal BC. Up to and including the 2010 season, the skeletons of over 240 individuals have been discovered within an area measuring about 200 m² (Fig.3). The burials were placed overlapping each other in a layer about 1 m thick. Two ¹⁴C samples taken directly from human bone date to 6474–6266 and 6415–6252 cal BC (*1σ*), respectively. The cemetery seems to have been used for several centuries (Tsuneki 2011 : p. 83–84).

General information about the Neolithic cemetery

Burials in the cemetery can be divided into three main types: primary inhumation, secondary burial, and cremation burial. Structured burials and urn burials were also identified within the cemetery, but their number was quite limited. Primary inhumation was the main burial type. Without exception, all skeletons were in a flexed position. They were usually buried on their sides, although some individuals were placed in a supine or prone position. Adult males and females, in addition to children, were buried in any position, and no remarkable differences were observed between age and sex. Although various burial orientations were observed, there do not seem to have been strict rules for burial orientation in this Neolithic cemetery.

Human skeletons, especially skulls and long bones, were sometimes removed from the primary



Fig.3 General View of the Pottery Neolithic cemetery until 2010 season (Revised from Tsuneki 2011)

burial context and reburied in a shallow pit. There are two sub-types of such secondary burials: single and collective. However, the majority of secondarily deposited skeletons were buried in a collective burial ground. Most of these individuals were adults; however, subadults, juveniles, and infants were also included in the secondary pits. Both sexes were identified from the adult bones.

The third burial type is cremation. Thus far, at least 37 cremated individuals have been discovered, mainly in four cremation pits. Over half of the cremated individuals were adults of both sexes; however, subadults, juveniles, and infants were also cremated. The age and sex distributions of cremations were similar to those of the secondarily deposited individuals. Considering the size of the pits, the number of individuals, and their disarticulation, it seems that the Tell el-Kerkh people did not cremate corpses, but rather, skeletons that had been disinterred from primary burials. In the earlier stages of the Tell el-Kerkh Pottery Neolithic cemetery, cremation practices, were common in association with primary and secondary pit burials. However, in the later stages, cremation declined. Primary inhumation gradually became the most popular burial type (Tsuneki 2011 : p. 84).

Individuals younger than twenty years old account for 47% of the total sample. Of these, 27% died within the first year of life, and 86% died before they were 12 years old. Such a high infant and child mortality rate is notable, as is the fact that most of these deaths were among newborns, infants, and juveniles under 3 years old. This is highly suggestive of a crisis in parturition, and during and after breastfeeding. A large number of young female burials also indicate the presence of poor maternal health (Dougherty 2011 : pp. 27–30).

Central Area Square E270

Located in the western part of the cemetery, Square E270a and b, measuring 10 x 5 m, was excavated in the 2009 season with the aim of searching for the western limit of the Neolithic cemetery (Fig.4). Excavations revealed the lower part of Layers 4 and 5. Later, a thin ashy layer was discovered, but it did not yield any notable structures. During the excavations, graves began to be discovered in Layer 5. Five graves, consisting of nine individuals in total, were discovered in 2009 within Square E270. Two of the structures (Str.926 and 927) were discovered with skulls missing, and the third structure 930 contained three human skulls, mandibles, and animal bones. The following section presents the full details, explanations, and descriptions of these finds, concluding with a final discussion.

Str.926

This skeleton was buried under a white lime floor in a strongly flexed position on its right side (Fig.5). The body's axis is oriented north to south, the lower limbs were strongly bent, and the knees were close to the chest. The left hand seemed to hold the chin, while the right hand was incorrectly

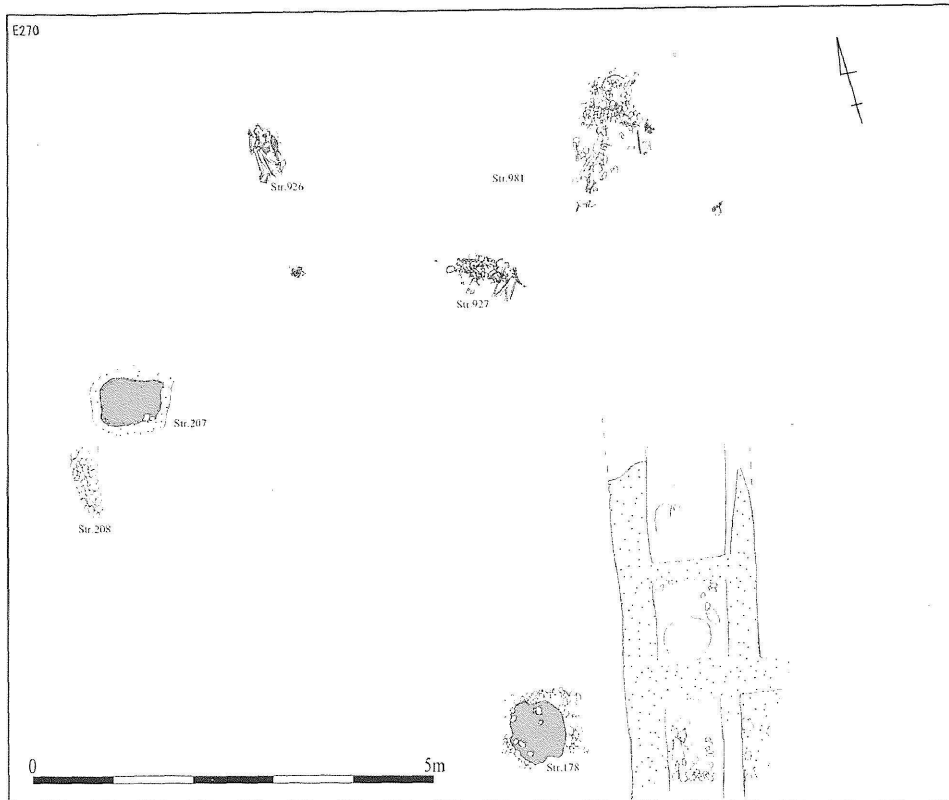


Fig. 4 General view of Square E270

positioned parallel with the left hand, placed in front of her face. Notable with this skeleton is that it lacks the cranium except the mandible. The long bones, pelvis, and mandible refer to an adult burial, and Sean Dougherty, the physical anthropologist involved in this project, confirms that it represents an adult female. Her skull appears to have been removed after skeletonization, as no cut marks are present on the cervical vertebrae. This individual had highly unusual mandibular tooth wear that is suggestive of using the dentition as a gripping tool (Dougherty 2009 : p. 25). Tsuneki (2009 : p. 5) asserted that "This is the first specimen showing a clear skull detachment from the dead among the Neolithic graves at Tell el-Kerkh." This female was adorned with seven beads discovered within the grave: shell and bone beads below her left arm, tusk-shell, limestone, and bone beads near her lower spine, and two conch shell beads around her neck.

Str.927

Located at the southwestern corner of Square E270b, three individuals have apparently been buried together in the primary inhumation position within one disturbed grave (Fig.6). The individuals seem to be one adult and two small infants. By analyzing the three individual bones, Dougherty (2009 : p. 25)



Fig.5 Str.926 with removed skull
(Bold items refer to beads)

was a fetal skeleton, whose mandible was found at the abdomen of the adult female. This individual's other skeletal parts were also disarticulated and disturbed. These three individuals seemed to have died together and were buried in the same grave, but we do not know whether they belong to the same family.

Some grave goods were discovered from this burial, e.g., a small Dark Faced Burnished Ware

identified a young adult female with no skull found in situ, as well as the skeletons of a fetus and juvenile (4–5 years old.)

The primary individual was a young adult female buried in a flexed position lying on her right side. Her lower body parts remained articulated, but her upper body was disturbed, perhaps by an animal. The burial lacked the cranium, as discussed by Tsuneki (2009 : p. 6): "It is not certain that a lack of skull of the adult female causes intentional detachment or animal disturbance." Her body was oriented from east to west. The other two individuals were buried with her. The juvenile's cranium was placed at her back, and its skeletal parts were disturbed, so their position and orientation could not be determined, although some parts were still articulated. The third interment

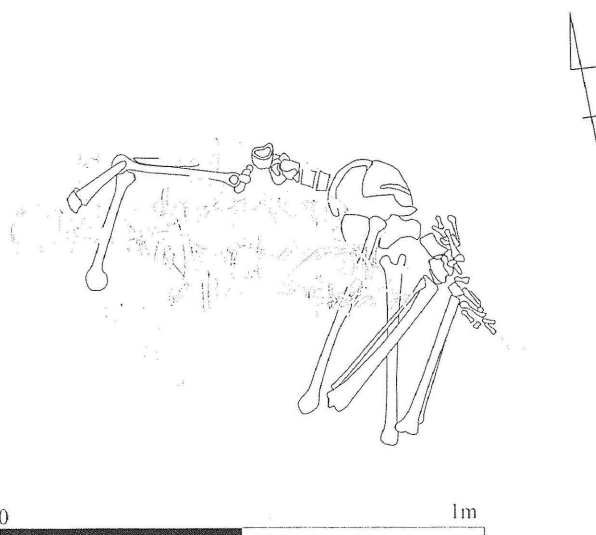


Fig.6 Str.927 drawing

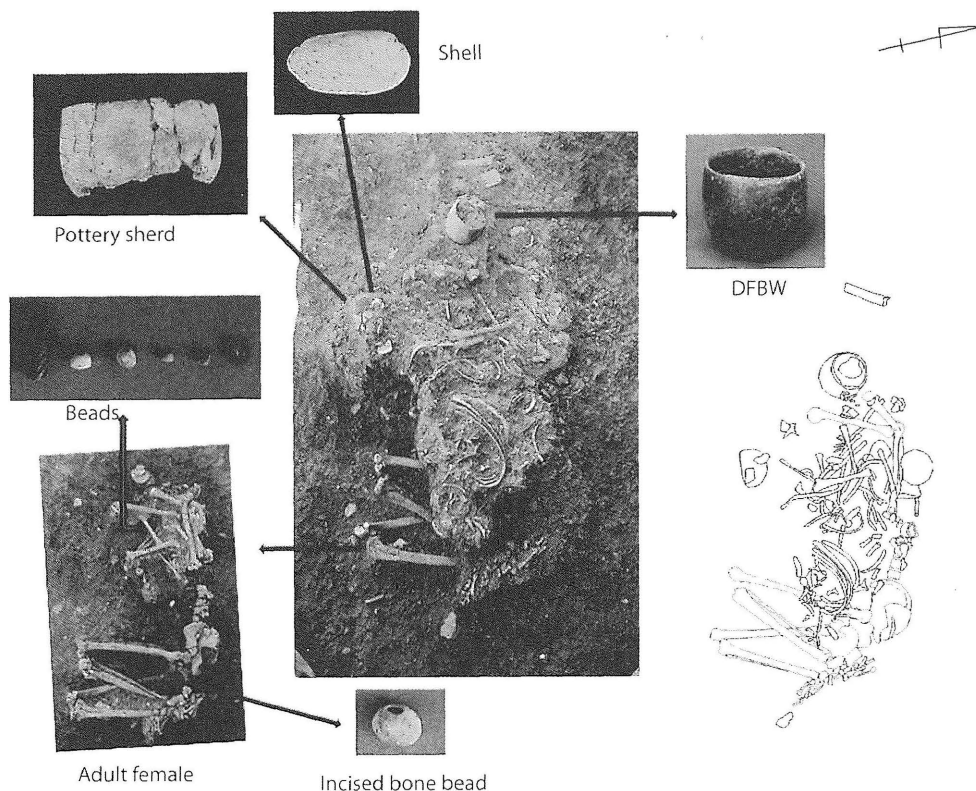


Fig.7 General view of Str.927

(DFBW) bowl and six beads (Fig.7). The bowl was completed and placed near the skull of the adult female. In addition, five beads made of agate, limestone, blue stone, and shell were found near the adult female's abdomen and below the fetal bones. Another beautiful incised bone bead was discovered near the female's pelvis (Tsuneki 2009 : p. 5).

Str.930

Near the northern end of Square E270b, an accumulation of human and animal bones was discovered (Fig.8). The extent of this bone distribution is 2 x 1 m. Some disarticulated human skeletons were mixed with many animal bones, especially from cattle, as well as potsherds and stones that were most abundant. Based on the structure, the random placement of the bones in the deposit, and the diversity of human and animal bones, this initially seemed to be a dump area. On the other hand, it also had characteristics of a secondary burial, i.e., a heap of human skulls and long bones with remnants of animal bones (Tsuneki 2009 : p. 6).

Two mandibles were discovered at the southern end of the accumulation, and two skulls, some skull fragments, and other human bones were found at the center of the pile. These two skulls were placed

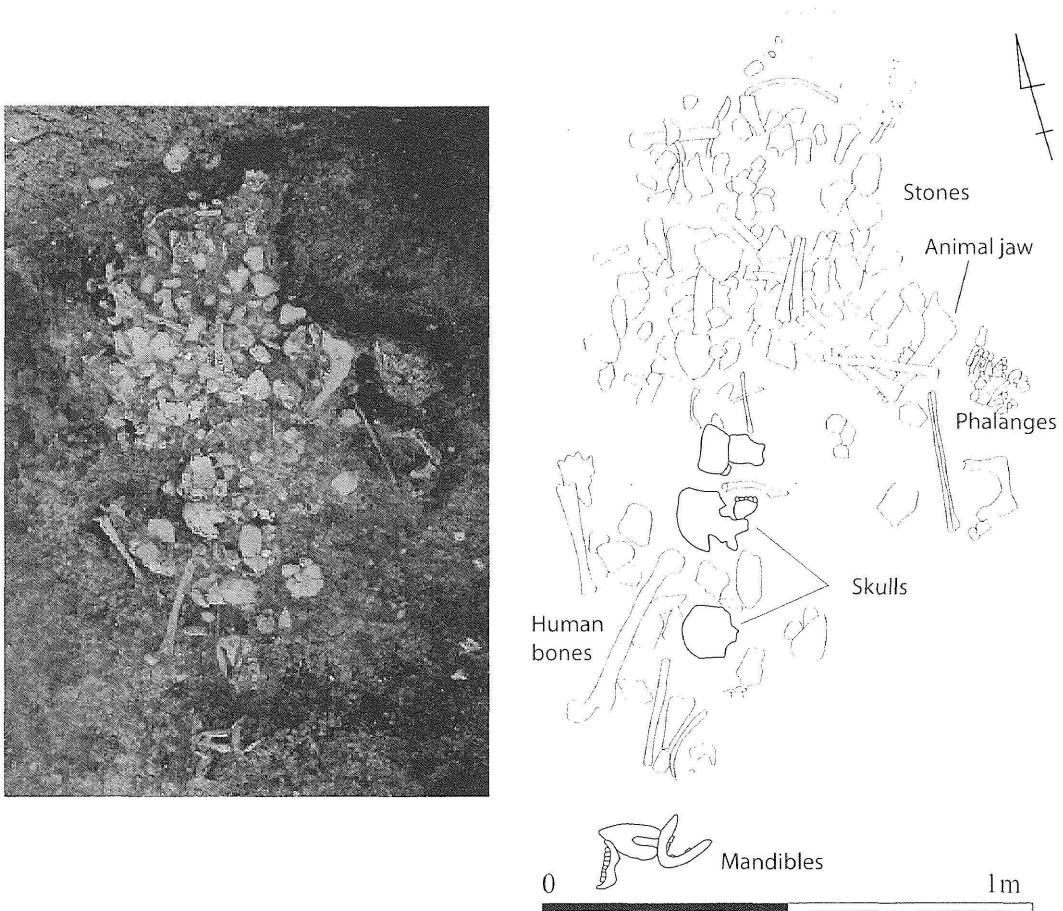


Fig.8 General view of Str.930

in an upright position, facing east. Some human femora and humeri were also found around the skulls, in addition to phalanges discovered at the eastern end of the accumulation. This is the first structure found within the cemetery, and it is unclear whether it was a burial in the truest sense or a ritual deposit (Tsuneki 2009). Dougherty (2009 : p. 25) identified the remains of at least three individuals, although the third is represented by only one bone. The other two are represented by crania, mandibles, and several postcranial elements. The first is probably an adult female, the second a definite adult female, and the third a possible female, based on a single adult occipital bone.

Discussion

The Tell el-Kerkh cemetery displays a different distribution for burials within the excavated squares of the cemetery. It can be seen that the northern and eastern squares (from north to south E251, E271, E291) show a higher density of burials. Another point is that the number of discovered burials increased

during excavation of the northern squares (E251, E271) compared with the southern (E270) and western squares (E290). This means that the direction of the cemetery extended to the north and east but not to the south and west.

Square E270 (Fig.4) at the western side of the cemetery shows unique or different ways of interring individuals from the settlement. In particular, individuals in the structures 926, 927, and 930 were treated with special care in regard to the head. The cranium was completely missing, or removed but the mandible was found. Otherwise, the crania and mandibles were separated from the bodies.

In the case of Str.926, a primary burial of an adult female, the cranium seems to have been removed after the flesh had completely decomposed. The mandible was found in its natural anatomical place within the grave. The mandible and cervical vertebrae were situated in anatomical position without any disturbance, and no evidence of cut marks had been observed. In my opinion, the fact that the rest of the skeleton was undisturbed makes it difficult to attribute the cranium's removal to carnivore activity. This may indicate that its removal was deliberate for another reason in order to fulfill the funeral practice of removing the skull, which was previously commonplace during the PPNA and PPNB. This practice reached its peak in the PPNA and PPNB period in Levant and disappeared or was practiced rarely in the late Pottery Neolithic.

Otherwise, as discussed above, recent excavations of PN deposits in northern Syria at Tell el-Kerkh and Tell Sabi Abyad showed newly attested evidence of skull removal. In general, this practice decreased compared with the previous period in the southern Levant and Anatolia.

In both cases, the skull had been removed some time after the corpses' interment, but in Tell Sabi Abyad burial B99-11 the skull had been separated from the body and replaced again in the grave. At Tell el-Kerkh in Str.926, the skull was removed but the mandible was found with the rest of the body within the grave, which make to believe it is evidence of intentional activity. However, Str.927 shows loss of the entire skull, which makes us wonder whether it had been cached somewhere within the cemetery. Str.930 reminded us of the ritual practice during the PPNB in which skulls were buried in a separate place for special purposes based on the importance of these individuals as well as their authority and power.

Square E270 represented special treatment of a deceased individual at the cemetery of Tell el-Kerkh. It can be observed that within this square, most individuals were handled this way. This means that the area excavated in square E270 may have somehow been a special place within the cemetery for ritual practices, reverence, or other reasons. Str.926 reflected the female without a skull that was considered an important example of the PPNA-PPNB people glorifying their ancestor's skull, having separated it from the rest of her body without the mandible to keep it for protection and power. While the second Str.927 contained three individuals, they seem to have been buried at the same time, but we are unsure if they belong to one family. On the other hand, what we can prove is that it is an important structure within the cemetery, where the primary female's skull was completely removed. A DBFW

bowl was found near her skull, which may be a replacement with a similarly shaped item. In addition, this structure was adorned with some beautiful grave beads. The juvenile and fetal skeletons that were buried with her might be her children. This may indicate that they had all been buried at the same time to accompany her to the second life after death.

Str.930 contained only human crania, mandibles, animal mandibles, and postcranial bones. These human remains belong to three individuals and the others are animal bones. Dougherty (2009 : p. 25) could identify crania, mandibles, and several postcranial elements as belonging to two adult females, and a single adult occipital bone indicates a possible female.

The situation in square E270 can be understood based on two viewpoints or hypotheses. First, the practice of removing skulls was common during the PPNA and PPNB periods. However, the number of examples of this practice decreased drastically in the following Pottery Neolithic period. The evidence at Tell el-Kerkh is one of the few examples discovered to date in the northern Levant. In my opinion, this shows that the people of Tell el-Kerkh revived this practice to reflect their sense of reverence for the skull that represents a connection with ancestors and their power and protection through their existence within the settlement. Second, I believe that the crania (Fig.9) in Str.930 may have been buried in a way typical of funeral practices within this cemetery. These skulls belonged to the individuals from Strs. 926 and 927 in the same square, but were buried separately with many animal bones. I base the second hypothesis on the evidence within this structure. It is notable that the first skull was buried in an upright position on its ventral base but without the mandible. The second skull was buried on its right side in its complete state. Therefore, based on these points, I presumed a connection between all of them. However, this conclusion was rejected through examination of some of the bone evidence in Str.930 by physical anthropologist Sean Dougherty.

Dougherty discussed this point according to the arrangement of bones in Str.930 (personal communication 2014). These individuals have crania, mandibles, and postcranial elements, including



Skull 2

Skull 1

Fig.9 Str.930 Skulls

arm and leg bones, and the third individual represented only by an occipital bone could not be attributed to the other skeletons. Therefore, it seems that the crania in Str.930 were buried with their bodies, but were unrelated to the skeletons in Str.926 or 927. Moreover, because Str.930 does contain postcranial remains representing two individuals, the more parsimonious explanation is that the crania of Str.930 are in fact associated with the long bones.

Both of the crania in Str.930 did have associated mandibles. This can be seen on the southern edge of the structure (Fig.8), so this would again rule out any relationship with Str.926. Moreover, the tooth wear on the cranium from Str.926 is very advanced, while the maxillary tooth wear for both crania in Str.930 is light to moderate. Therefore, the individuals in Str.926 and Str.927 have very different teeth. On the other hand, both of the skeletons in Str.926 and 927 have at least one first cervical vertebra present in the Str.930 cluster. This would again appear to rule out a connection.

Because the individual in Str.927 has no mandible, it is entirely possible that skull 930.1 could be attributed to 927. However, indications are that the individual in Str.927 was older, but the 930.1 teeth reflect a younger adult. Beyond this, there is little evidence to evaluate, and because we can no longer assess the bones, it is impossible to properly test the hypothesis about the relationship between structures by reconstructing the skeletons.

The only assumption that can be completely falsified at this point is the relationship between Str.926 and 930. However, the relationship between Str.927 and 930 is still open to speculation. Upon further review, the tooth wear of the skeleton in Str.930.1 does fall within the range of the age of the person in Str.927.3 (the adult female), which is probably 30–40 years. Unfortunately, the Tell el-Kerkh samples do not generally show very heavy tooth wear, so this characteristic may not be as useful as hoped for age estimation.

The hypothesized relationship between structures is most probable for the other postcranial remains from Str.930. On the other hand, if the hypothesis is supported, and if the skull was removed from Str. 927 and brought to Str.930, why would it be deposited with a disarticulated cow skeleton and stone rubble, in what appears to be a midden deposit? Moreover, were these even purposefully buried, or were they left on the ground surface to be covered over time, like garbage thrown behind a house?

Conclusion

The cemetery of Tell el-Kerkh showed diversity of funeral practices of dealing with dead people. Moreover, it's notable that the cemetery was divided for various sections, and every section assigned for special ritual custom.

The general character of square E270 and Str.930 in particular reflects a sense of privacy. Moreover, many questions revolve around this structure. For example, why is this the only evidence discovered within the cemetery reflect disarticulated human remains mixed with disarticulated cow remains? Was

this a kind of funeral practice mixing human and animal bones together? Or it was just a garbage deposit that intruded on earlier burials? The two mandibles positioned next to what appears to be a butchered animal scapula, maybe refer to evidence of butchery analyzed by ancient people.

Many questions about these structures remain under discussion and are in need of clear explanations gained from clear evidence obtained in the near future. However, for now we can assert our assumptions and discuss all previous facts according to the evidence currently available.

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