

## KEPHALA PETRAS ROCK SHELTER

### THE HUMAN REMAINS

#### Handling with the human bones from the Kephala Petras Rock Shelter

In March and April 2008, the human bone material was cleaned with soft brush and water by Eleftheria Tsihli, MPhil, Aristotle University of Thessaloniki at the INSTAP Study Center at Pacheia Ammos, eastern Crete. At a later stage, in May 2008 (two weeks), Dr Sevi Triantaphyllou sorted the human bone material in major anatomical units: Cranial bones (3 crates), Mandibles/maxillae/teeth (1 crate), Clavicles/scapulae (1 crate), Humeri (1 crate), Ulnae (1 crate), Radii (1 crate), Hand/Foot bones (1 crate), Vertebrae (1 crate), Ribs (1 crate), Os coxae (1 crate), Femora (3 crates), Tibiae (2 crates), Fibulae/Patellae (1 crate) and Unidentified bone fragments (4 crates). Sorting of the skeletal material will facilitate the next stage of macroscopic study which will involve detailed recording of identified bone fragments by side, sex and age category.

#### Preliminary results (Study season 2008)

Skeletal assemblages coming from multiple burials and commingled bone remains such as the human bones of the rock shelter offer a unique opportunity to shed some light on issues related to the treatment of the deceased, the practices associated with the burial, re-burial and multiple use of the disposal area as well as on biological parameters of the case study population such as demography – minimum number of individuals, sex and age groups – health and dietary status as well as occupational stress factors.

In particular, issues which will be explored extensively in this project and have been partly seen throughout the first stage of investigation include:

- (1) The occurrence of *primary burials or semi-articulated anatomical units* which will provide information on mortuary activities taken place after the burial of the deceased. Preliminary work on the material as well as careful observation of the photographic archives reveal that the skeletal remains of the rock shelter represent mainly products of secondary treatment. Taphonomic factors related to intense fragmentation suggest that removal of the bone material from their original disposal area took place after the remains were skeletonised and turned into dry bones.
- (2) The occurrence of *preferential selection of certain bone categories* e.g. skulls and/or long bones as opposed to small bones which are usually lacking from secondary disposal of human remains. This is particularly significant considering that at the same time the nearby cemetery of the house tombs was also in use. Preliminary investigation reveals that there is no particular selection of anatomical units and therefore all bone categories are included in the skeletal assemblage including small bones (hand/foot bones, phalanges), vertebrae and rib fragments.
- (3) Accessibility to the rock shelter of *certain age and/or sex categories*. Preliminary investigation shows that all age categories and both sexes were disposed in the rock shelter including perinatal or newborn babies and early infants. This picture is consistent with the idea that skeletal remains represent

population groups linked with family relations rather than population segments based on age and/or sex divisions.

- (4) The character of the deposition of the human skeletal remains whether they represent *one single episode or multiple episodes* reflecting therefore different times of visits by the relatives of the deceased. It is interesting to point out here the exceptionally remarkable evidence of ritual activity which appears to have taken place during the Neopalatial period and was consisting of a libation jug and a conical cup (Tsipopoulou 2007) placed together with an articulated left side lower limb (pelvis, femur, tibia and fibula, foot), according to the preliminary investigation. There is a number of cranial and post-cranial bone fragments with clear evidence of burning on the bone surface (**Figure 1**). Burnt human bones are well known from pre-palatial skeletal assemblages of Mesara tholoi e.g. Moni Odigitria, tholos A and B (Triantaphyllou in print), and they represent remnants of the fumigation of the tholos, a practice which is usually associated with the symbolic and practical clearance of the floor of the earlier human remains and its preparation for the deposition of the new incomers. Considering that fumigation activities represent single episodes, it is interesting to note that burnt bones were found scattered in several layers of the rock shelter and not in certain areas. Also, it is worth mentioning the occurrence of a number (69 small plastic bags) of stratified – and not intrusive - animal bones sorted out from the human skeletal remains which gave no evidence of burning, except for one case only. The study of this material is extremely crucial in the discussion of activities associated with the memory of the deceased such as *funerary meals* taken place during burial and/or reburial.
- (5) The *health and oral status of the deceased* as well as *diet*. Preliminary investigation gave evidence of pathological conditions commonly found in prehistoric assemblages in the prehistoric Aegean such as different types of arthritis and vertebral arthritis, long term healed fractures (**Figure 2**) especially on ribs - there is an overall lack of cranial injuries – non specific infections and in particular periostitis on lower limbs, cribra orbitalia (**Figure 3**) and porotic hyperostosis associated with anaemia, caries and teeth lost prior to death. There is also one case of an adult female with possible artificial cranial deformation resulting to a long-shaped head (**Figures 4-5**). Cranial deformation appears to be a common phenomenon in Neolithic and Bronze Age populations at Cyprus and was associated possibly with the social identity of the affected individual while its occurrence in the prehistoric Aegean is rare. Furthermore, the same individual with the deformed skull gave evidence of trephination – small opening on the sagittal suture of the parietals - although the individual seems to have died shortly after the operation.

### **Prospects for further work (2009-2011)**

Systematic recording of the identified anatomical units (18 crates), which will be conducted as a 3-years project (2009: lower skeleton, 2010: upper skeleton, 2011: skulls and teeth):

- (A) *Marking* of the skeletal material with ink.

- (B) *Siding of anatomical units* in order to estimate the minimum number of the individuals disposed in the rock shelter.
- (C) *Macroscopic sexing* based on certain morphological features of cranial and pelvic elements as well as on long bone measurements (Buikstra and Ubelaker 1994).
- (D) *Macroscopic ageing* based on dental and bone morphology (pubic symphyseal morphology, epiphyseal completion, ectocranial suture closure, dental attrition) (Buikstra and Ubelaker 1994).
- (E) *Recording of pathological lesions*.
- (F) *Recording of taphonomic processes*.

### **Bibliography**

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**Figure 1:** Bone with evidence of burning in low temperature



**Figure 2:** Long bone with evidence of long term healed fracture



**Figure 3:** Left orbit with cribra orbitalia



**Figure 4:** Cranial deformation and possible trepanation (superior aspect)



**Figure 5:** Cranial deformation (lateral aspect, right side)