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References

- Buikstra J.E., Ubelaker D.H., ed. (1994), *Standards of data collection from human skeletal remains*, "Arkansas Archaeological Survey Research Series" 44, Fayetteville.
- Lukacs J.R., Nelson G.C., Walimbe S.R. (2001), *Enamel hypoplasia and childhood stress in prehistory: new data from India and Southwest Asia*, Journal of Archaeological Science 28:1159-1169.
- Lukacs J.R., Walimbe S.R. (1998), *Physiological stress in prehistoric India: new data on localized hypoplasia of primary canines linked to climate and subsistence change*, Journal of Archaeological Science 25:571-585.

Gohar Tepe and three other sites (Iran), seasons 2009–2010

Arkadiusz Sołtysiak*1, Ali Mahfroozi², Serollah Ghasemi², Ebrahim Amirkolaee³ ¹Department of Bioarchaeology,

Institute of Archaeology, University of Warsaw, ul. Krakowskie Przedmieście 26/28, 00-927 Warszawa, Poland email: a.soltysiak@uw.edu.pl (corresponding author) ²Iranian Center for Archaeological Research, Baharestan Sq., 11416 Teheran, Iran ³Islamic Azad University, Savad Kooh Branch, P.O. Box 155, Savad Kooh, Iran

Excavations at the site-museum Gohar Tepe (36°40'42"N 53°24'07"E), which have been reported previously (see Sołtysiak & Mahfroozi 2008, 2009) continued in the autumn of 2009 and the summer of 2010. During restoration works at exposed parts of the cemetery, 12 skeletons were explored and subsequently studied in August 2010 by Sołtysiak in the dig house at the site. All of them are dated to the Late Bronze Age and Early Iron Age. Moreover, during the analysis of animal bones by Anna Gręzak (University of Warsaw, Poland), additional 100 often small assemblages of human remains were retrieved, some of which likely originated from regular graves, but some from secondary contexts.

Approximately half of the skeletons excavated in the regular graves belonged to subadult individuals (see **Table 1**), while the human bone retrieved from the zooarchaeological assemblages was primarily subadult and infant. In the latter, taphonomic effects were frequently noted, such as root etching, invertebrate activity, rodent tooth marks, as well as possible tooth marks from a carnivorous animal (AGXXX 45.132, **Figure 1**). In a few cases, some evidence

of trauma was observed, such as a healed rib fracture (AH2XXI loc. 6) and an advanced non-specific infectious disease in a fragment of fibula (AH2XXI loc. 8, **Figure 2**).

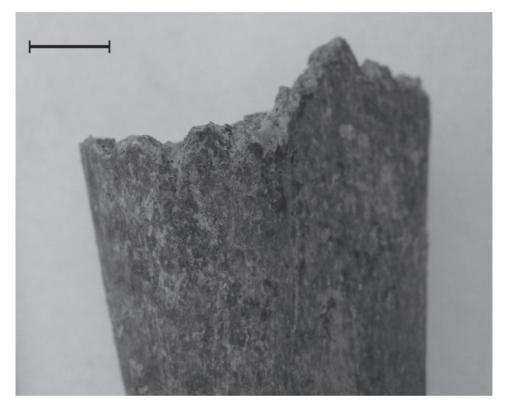


Figure 1. Possible tooth marks of a carnivorous animal. Gohar Tepe, AGXXX 45.132.

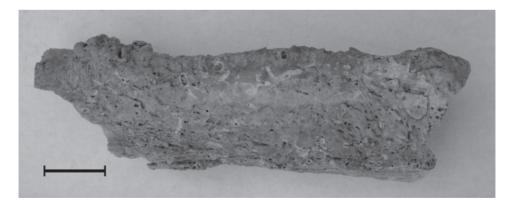


Figure 2. Non-specific infectious disease in a fibula. Gohar Tepe, AH2XXI loc. 8.

| Trench | Context | Sex | Age | Caries | Comments |
|---------|---------|-----|--------|--------|---|
| AH2XX | 12-237 | _ | 0.5 | | |
| AH2XXI | 7 | _ | foetus | | |
| AH2XXI | 100 | _ | 0 | | |
| AJ2XX | 11-28 | F | 35-40 | | only lower part of the body |
| AJ2XX | 20 | М | 30-35 | 1/30 | initial osteoarthritis in hands and feet |
| AJ2XX | 32 | ? | 18-21 | 7/22 | antemortem loss of one molar |
| AJ2XX | 54-233 | _ | 3 | 1/11 | periostitis in lower midshaft of tibia |
| AJ2XXI | 97 | М | 35-40 | 0/28 | only upper part of the body; healed fracture of left clavicle |
| AL2XXII | 21 | _ | 0.5 | | |
| STS2XVI | 181 | ? | young | 5/21 | only cranium and a few postcranial fragments |
| STS2XVI | 205 | _ | 1 | | |
| STS2XVI | 207 | _ | 0.5 | | |

Table 1. Human remains from Gohar Tepe excavated in the autumn 2009 and summer 2010.

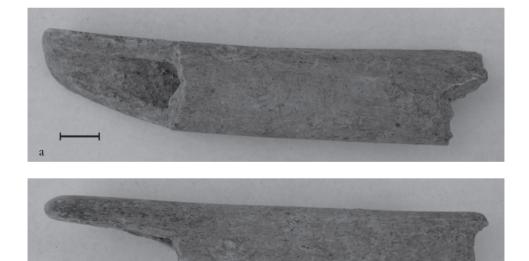


Figure 3. Tool made from human femur: (a) medial side, (b) anterior side. Gohar Tepe, AJ2XX 68.211.

b

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Figure 3. Tool made from human femur: (c) working end detail on medial side, (d) working end detail on posterior side. Gohar Tepe, AJ2XX 68.211.

Of all the retrieved human bones, the most unexpected finding was a tool made from a human's left femoral midshaft found in AJ2XX context 68.211. The skeletal element belonged to a gracile individual, most likely female based on the development of the linea aspera. The tool was 110mm in length and 63mm with complete circumference. The working end was polished and formed a slightly bent line ~18mm long, while the opposite side was perhaps chipped in an irregular way (**Figure 3**). Tools made from human bones have been found at Tell Nebi Mend (Molleson 2002) and at Tell Majnuna (Sołtysiak & Chilińska-Drapella 2009), but the specimen from Gohar Tepe differs from them in size and in shape.

In 2006 the railway near Gohar Tepe was restored and enlarged, activities that affected nearby sites such as Yaghut Tepe (36°41'10"N, 53°24'30"E), a small site dated to the Late Bronze Age and Iron Age. During rescue excavations directed by Ali Mahfroozi, three human burials were found, but no bones were secured. Several assemblages, however, of animal remains were excavated at the site and during their analysis by Anna Gręzak in the summer

2010, many human elements were retrieved. These bones derived from five trenches and 18 loci; if each locus may be treated separately, the minimum number of individuals is 23 (four children up to 7 years old, three older children, one adolescent, and 15 adults), but if all trenches may be taken as one context, the minimum number of individuals is 6 (one child 2-4 years old, one child 11 years old, and four adults) after the number of preserved mandibles. Even in the second variant, the retrieval rate for each skeleton is well below 50%.

Most of the bones were white in colour due to exposure to the sun in a provisional storage place at Gohar Tepe. Rodent tooth marks were common and in some cases the breadth of the incisor marks was ~5mm which suggests that the human remains were gnawed by porcupines (**Figure 4**). A few of the human remains from Trench 7, loci 10 and 11, were slightly burned and presented brown or black discolouration, but only slight deformation. The sample of human remains from Yaghut Tepe is dated to the same period when Gohar Tepe was used as a cemetery and these two sites are very close to each other, so it is likely that they both were used by the same population.

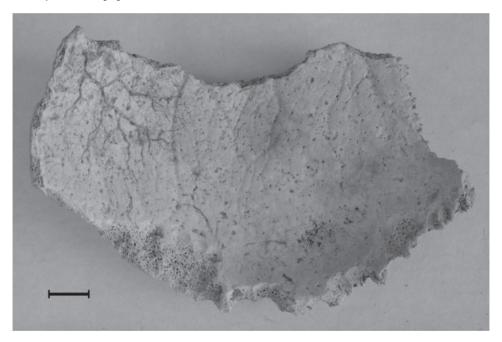


Figure 4. Porcupine tooth marks on cranium. Yaghut Tepe, Trench 1, locus 15.

Abbasi Tepe (36°40'30"N, 53°22'10"E) is another site in the neighbourhood of Gohar Tepe, located in front of Komishan Cave. It was excavated in the summer 2009 by Rahmad Abbasnejad (Iranian Center for Archaeological Research). The pottery found at the site was dated to the Chalcolithic, but a few radiocarbon dates were from the range of 1950-1750 cal. BC. Only two human skeletons were found at Abbasi Tepe, including the fairly complete skeleton of a six year-old child with 2/20 deciduous teeth exhibiting carious lesions (Trench C, loc. 35) and the very badly preserved skeleton of a 9 month old infant (Trench SW, loc. 6).

During the 2010 research season at Gohar Tepe, a sample of human and animal remains was transported from Ghal-e-Kash (36°28'11"N 52°25'35"E), a small settlement site in the western part of the Mazandaran province dated to the Iron Age II (Sołtysiak et al. 2009). Because of time restrictions, only one out of three boxes was studied. It included the remains of six individuals: five subadults (newborn child, 6 months, 1, 3, and 4 years old) and one adult female, most likely between the ages of 30-35. Cribra orbitalia was observed in the 4 year old child and a cranial fragment belonging to either the 3 or 4 years old child exhibited porotic hyperostosis (**Figure 5**).

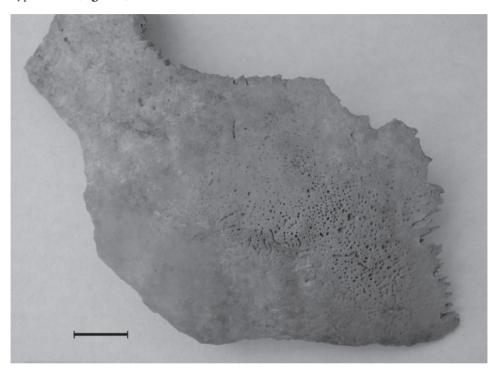


Figure 5. Porotic hyperostosis. Ghal-e-Kash, Trench STNW locus 48.143.

References

- Molleson T. (2002), *Two spindles made from human fibulae from Tell Nebi Mend, Syria*, BANEA Newsletter 15:10-11.
- Sołtysiak A., Amirkolaee E., Ghasemi S., Miri M. (2009), Short Fieldwork Report. Ghal-e-Kash, Tepe Lafoor & Molla Kheil (Iran), season 2009, Bioarchaeology of the Near East 3:41-47.
- Sołtysiak A., Chilińska-Drapella A. (2009), Short Fieldwork Report. Tell Majnuna (Syria), seasons 2007-2008, Bioarchaeology of the Near East 3:53-58.
- Sołtysiak A., Mahfroozi A. (2008), Short Fieldwork Report. Gohar Tepe and Goldar Tepe (Iran), seasons 2006-2007, Bioarchaeology of the Near East 2:71-77.
- Sołtysiak A., Mahfroozi A. (2009), *Short Fieldwork Report. Gohar Tepe (Iran), season 2009*, Bioarchaeology of the Near East 3:47-51.