

## Human remains from Kaleh Kub, Iran, 2018

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The ancient site of Kaleh Kub (33°52'56"E, 58°21'54"N) is located SW of Ayask, a small town in Sarayan county, South Khorasan province, Iran (**Figure 1**). It covers 7ha of a modern agricultural area (Anani et al. 2014:60). Discovered in 2008, it was first excavated over three seasons (2008, 2009 and 2011) by Sahab Yousefi (Anani 2012). Based on pottery, three occupation phases were defined, from the Late Neolithic and Transitional Chalcolithic (late 6<sup>th</sup> and early 5<sup>th</sup> millennium BCE) through Proto-Elamite period (4<sup>th</sup> millennium BCE) to the Early Bronze Age (late 4<sup>th</sup> and early 3<sup>rd</sup> millennium BCE) (Azizi Kharanaghi et al. 2018). In the excavated area, the remains of houses and human burials were found together with pottery (including beveled-rim bowls), stone tools, beads, and seals (Yousefi et al. 2013:453). To understand better the stratigraphy of the site, a new excavation season was conducted in May/June 2018 under the supervision of Mohammad Hossein Azizi Kharanaghi (National Museum of Iran). Two trenches (A and B) were opened and at various depths three human burials were found (Azizi Kharanaghi et al. 2018) and consequently transported to the Institute of Archaeology, University of Tehran. Human remains were studied there using standard protocols (Buikstra & Ubelaker 1994) with some modifications (Sołtysiak 2010).

A primary single burial was found in context 1007, the southern part of Trench A, at the altitude of 1358.40masl. The grave pit shape was not clear, and the individual was buried in a flexed position with no grave goods, face to the north and head to the west. Bones were strongly eroded likely due to the high annual humidity rates in the region (**Figure 2**). The grave was dated to the Bronze Age based on its stratigraphical position.



Figure 1. Location of Ayask in Iran (drawing by Pegah Goodarzi).



Figure 2. Trench A, Context 1007 (photograph by Afshin Akbari).

Due to erosion, only a few skeletal measurements were possible. From these, the individual was likely female (maximum diameter of the femoral head 41.3mm, broad

right preauricular sulcus) who was middle age (moderate to advanced tooth wear). No degenerative joint disease was noted in the few preserved articular surfaces. Neither dental caries nor linear enamel hypoplasia was noted in the complete mandibular dentition (except LLC that was lost *ante mortem*).



Figure 3. Trench A, Context 1016 (photograph by Pegah Goodarzi).

The second primary burial in Trench A was found in context 1016, at the altitude of 1357.08masl. Only the feet (with displaced phalanges), pubic symphysis, and ischium were retrieved and most portions of the skeleton remained in the unexplored NW section of the trench (Figure 3). The position of the bones suggests that the body was tightly flexed and placed on the right side. Because the skeleton was protected by a later deposit and some bricks, the bones were well preserved. All retrieved bones were very robust (left calcaneus, maximum length 88.6mm, breadth 47.0mm; left talus, maximum length 59.8mm, length of the superior articular surface 41.9mm), and as a result probably belonged to a male individual. No degenerative joint disease was noted. This burial was preliminarily dated to the 5<sup>th</sup> millennium BCE based on stratigraphy.

The last burial was found in Trench B, context 2010, at the altitude of 1357.00 masl. The skeleton was arranged on its right side at the NW-SE axis in the eastern side of the trench, head to the northwest and face to southwest, and hands in front of the face. Only the skull and upper limbs were exposed, while other parts of the skeleton remained in the eastern section (Figure 4). Similar to A.1007, the shape of the burial pit could not be traced. No grave goods were found in the excavated portion of the burial. Based on stratigraphy, the burial was dated to the 4<sup>th</sup> millennium BCE.



Figure 4. Trench A, Context 1007 (photograph by Sepideh J. Yeganeh).

Based on measurements of the upper limb bones, the skeleton belonged likely to a male individual (epicondylar breadth of the humerus 61.0; ulnar anterior-posterior shaft diameter 18.2, minimum circumference 39) with the degree of tooth wear similar to individual A.1007. No degenerative joint disease was observed in the preserved articular surfaces with exception of small osteophytes on the body of a cervical vertebra. Again, neither dental caries nor linear enamel hypoplasia was noted, but many tooth crowns were affected by ante-mortem breakage, suggesting foods abundant in hard particles.

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