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Short fieldwork report

Human remains from Mersin, Iran, 2014

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The cemetery at Mersin is located in Semnan province, north-central Iran (36°03′05″N, 53°27′36″E) along the southern slopes of the Alborz Mountains, east of the village of Talajim, near the Sefidrud River (**Figure 1**). The site was discovered during rescue archaeological survey in the Fenisk Dam basin area. Based on surface materials, the cemetery was dated to the late Iron Age III and early Iron Age IV (c. 600–400 BCE). To corroborate this dating, a radiocarbon date has been obtained from human collagen from grave 13, covering the Achemenian period (Poz-100848, 519–358 cal. BC). As the Iron Age culture in Semnan province has not been well recognized,

Figure 1. Location of Mersin in Iran. Map data: Google.

Figure 2. General view of trench 3. Photograph by Reza Naseri.

in August 2014 the Iranian Centre for Archaeological Research organized regular excavations at the site under direction of Mehrdad Malekzadeh.

Three trenches were excavated, covering a total of 235 square metres. Within trench 3 (10×5m) fifteen human graves were found (**Figures 2** and **3**), distributed in a regular pattern. Some burials were disturbed, but common features were easy to recognise, including the rectangular shape of the grave pit and the presence of a single body buried in each grave, being interred in an extended position on the back. Most graves (excluding graves 1, 3, 4 and 14) had large stones delimiting the burial place (**Figure 4**) and all contained grave goods except grave 4 that was, however, disturbed. The graves can be divided into two general categories, being either covered by large flat slabs and wood (like graves 5 and 10), or covered only by soil. There is no uniform orientation of the body within the burial.

Grave goods were variable and there were, among others, pottery vessels of different types, such as single-handled pitchers, bridge spout bowls, pots with spouts and handles, small jars, pedestal bowls and twin joined small jars. Typical bronze objects included rounded bracelets with open ends, bells and rings. Spindle whorls made of terracotta, plaster beads, bone beads, iron bracelets and rings were less common grave goods found at Mersin.

The human remains from Mersin were studied in October 2017 in the facilities of the Institute of Archaeology, Tehran University, using the standard protocols presented in Buikstra and Ubelaker (1994) with some modifications (see Sołtysiak et

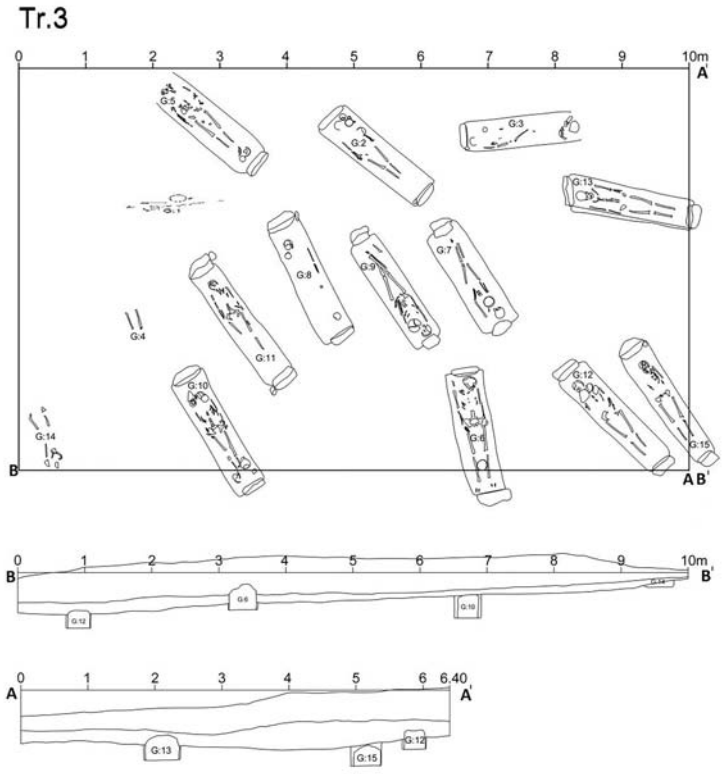

Figure 3. General plan and profile of graves from trench 3. Drawing by Ali Naseri.

al. 2019). In total, the skeletons of 13 individuals were identified, all of them belonging to adult individuals of both sexes, being typically those of mature to older adults (**Table 1**). Although the sample size is very small, it seems that the portion of the cemetery excavated was never used to bury subadult individuals, with even young adults being under-represented.

Some skeletons were fairly complete, but some were represented mainly by long bones. On average, the majority of skeletal elements recovered were highly degraded (**Figure 5**), with clear traces of plant roots and black staining due to fungal decay and even occasional erosion of tooth enamel (as in grave 8). It is clear from such evidence that taphonomic alteration, particularly of smaller and more fragile elements, was substantial at Mersin. The generally poor state of preservation also significantly inhibited observation of pathological conditions in most individuals, resulting in only some cases of degenerative joint disease and dental caries being confidently scorable.

Figure 4. Graves 12 and 15. Photograph by Reza Naseri.

Figure 5. Grave 8: extreme erosion of the cranial vault. Scale bar 1cm. Photograph by Arkadiusz Sołtysiak.

Figure 6. Grave 9: degenerative joint disease at the anterior arch of the atlas. Scale bar 1cm. Photograph by Arkadiusz Sołtysiak.

In three individuals (graves 9, 12 and 13), osteoarthritis of the atlas-axis joint (at the odontoid process) was observed (**Figure 6**), and appears to be a relatively common condition in this population, perhaps being a reflection of biased age-at-death profile

Table 1. Basic characteristics of human remains from Mersin.

Grave	Sex	Age-at-death	Caries	Comments
1	M*	adult		a few elements
2	?	old	3/3	
3	?	adult	0/3	a few teeth out of alveolus
5	F**	adult	0/1	
6	M*	adult	0/25	skull, pelvis and femora
7	M**	old	1/11	mainly skull and the long bones
8	F**	adult	0/1	
9	M	adult	0/15	mainly skull and the long bones
10	F*	young adult	0/22	mainly skull and the long bones
11	?	old	0/1	upper part of the body
12	F*	adult	3/12	skull, pelvis and femora
13	M**	old	1/12	mainly skull, pelvis and long bones
15	F**	adolescent	0/21	most complete skeleton

at this site associated with the generally high number of senile individuals within the analyzed sample.

Antemortem tooth loss was relatively common (graves 2, 7, 13) and also average tooth wear was relatively high, again, most likely due to over-representation of older individuals. On the other hand, dental caries were not very common (8/126 cases = 6.3%). Two cases of a rocker mandible (cf. Houghton 1977) have been identified (graves 12 and 13).

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