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Short Fieldwork Report: Tell Majnuna (Syria), seasons 2007–2008

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Tell Majnuna (Syria), seasons 2007-2008

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Large deposits of human remains were exposed accidentally at Tell Majnuna (36°40'27"N 41°03'13"E), a satellite mound close to Tell Brak, following the organisation of storage space for the harvest of 2006. A two-week salvage operation was undertaken in September 2006 by members of the Tell Brak regional survey expedition. The results of this operation suggested that the deposits were most likely the result of a massacre that took place during the Late Chalcolithic 3 period, ~3800 BCE (Karsgaard & Sołtysiak 2007; Sołtysiak 2008). Following the salvage operation, the central part of Tell Majnuna and areas west of the mound were subject to systematic archaeological excavations directed by Augusta McMahon (McDonald Institute of Archaeological Research, Cambridge) between 2007 and 2008. 15 trenches were explored in five areas: MTE and EM on the eastern and western slopes of Tell Majnuna respectively, EME in the central part of the site, EMS on the southern slope, and MTW on the plain west of the mound, along the destruction trench made by a mechanical digger in 2006 (see **Figure 1**). Although virgin soil was reached in several of the trenches (MTW), others (e.g., EM2, EM3 and EM4) were shallow and excavations exposed only the upper strata of the site. Few architectural remains were found, including a circular construction in EMS and some fragments of walls (with no clear foundation) in EME and EM2. After two seasons of regular excavations it was clear that Tell Majnuna was a large midden containing sherds, ashes, and other kinds of waste. In addition, human remains were found in almost all of the deeper trenches, some in loose bone scatter, most in dense clusters of partially articulated or disarticulated bones and bone fragments (**Table 1**). Moreover, in the eastern part of Tell Majnuna (MTE, EME, EME2), a regular cemetery was found on top of the midden. All strata containing human remains in this cemetery were dated to the Late Chalcolithic 3, ~3900–3700 BCE.

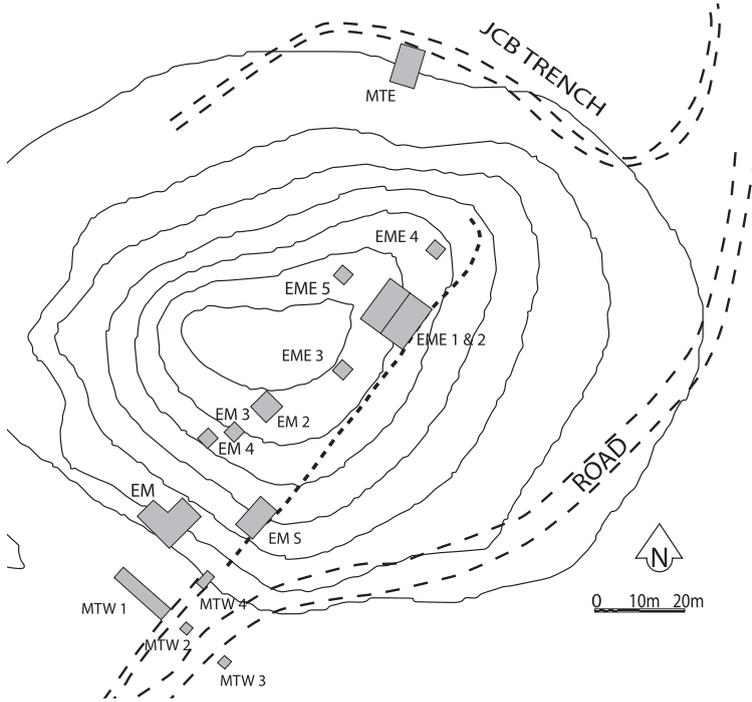


Figure 1. General plan of the site showing the excavations areas (courtesy of Augusta McMahon, re-drawn by Barbara Sołtysiak).

Table 1: Locus numbers for human bone deposits and regular cemeteries at Tell Majnuna.

Trench	Large deposits or skeletons	Small deposits or single bones
MTW1	59, 65, 66	4, 13, 30, 36, 38, 39, 64, 70
MTW2		3, 4, 6, 7
MTW3	33	34
MTW4	65	63, 64, 66, 67
EM	6=53, 25, 29	2.3, 2.6, 4.1, 4.2, 4.4, 13, 16, 17, 21, 22, 23, 24, 26, 27, 28, 30, 31, 50, 51
EM2		13
EMS	6	3, 7
MTE		5, 8, 13, 14, 15
EME	3, 5, 6, 8, 32, 34	31
EME2	21	12, 15, 19, 20
EME3	55	52
EME4		72, 73

In attempting to determine the nature of the large deposit of human remains at Tell Majnuna, it was important to gather taphonomic data. To do so, each human bone, bone fragment, or articulated skeletal unit was described separately and postmortem modifications such as tooth marks, root etching, insect tunneling, and so forth were noted in a systematic way. In addition, osteological information was collected using a questionnaire based on Buikstra & Ubelaker (1994). More than 3000 bones, articulated skeletal units, or complete skeletons were retrieved at Tell Majnuna by both the present authors (EM loc. 6 in 2007 by Sołtysiak, EM loc. 6, 25, 26 and MTW loc. 63 in 2008 by Chilińska) and by trench supervisors. Sołtysiak studied all of the skeletal material between 2007 and 2009. The remains of at least 228 individuals were retrieved from Tell Majnuna, including 53 skeletons from the regular cemetery and at least 175 individuals from the secondary deposits (see **Table 2**).

Table 2: Minimum number of individuals (MNI) or number of articulated skeletons (n) per trenches/loci at Tell Majnuna.

Trench/Locus	MNI	n	Comments
MT rescue operation	24		Cluster of partially articulated skeletons, both sexes.
MTW1 loc. 65	8		Dense bone scatter.
MTW1 loc. 66	6		Cluster of partially articulated skeletons.
MTW1 (others)	4		Single bone fragments in various strata.
MTW2+3	3	1	One regular burial and bone scatters.
MTW4 loc. 63+64	2		Bone scatter.
MTW4 loc. 65	14		Cluster of partially articulated skeletons, both sexes.
EMS	4	1	One skeleton and a dense cluster of disarticulated bones.
EM loc. 6=53	80		Dense cluster of disarticulated bones, more females and children.
EM loc. 25	8		Cluster of partially articulated skeletons, chiefly crania.
EM loc. 29	4		Outlier of EM loc. 6=53.
EM+EM2 (others)	4	1	One regular burial and bone scatter in various strata.
MTE		15	Small parts of regular burials, some explored in 2006.
EME top cemetery		35	Regular burials on top of the midden, both sexes, no infants.
EME3 loc. 55	12		Cluster of partially articulated skeletons, chiefly crania.
EME1+2+3+4 (others)	2		Bone scatter in various strata.
Total	175	53	

During the salvage operation in 2006, a mechanical digger exposed a dense cluster of disarticulated and articulated bones to the west of Tell Majnuna. Regular excavations in nearby trenches MTW and MTW4 have revealed another portion of this irregular cluster that was disturbed by many pits dating to later periods. The upper levels of this context (MTW loc.

59, 65, MTW4 loc. 63, 64) consist primarily of disarticulated bone, probably the result of disturbance of the lower levels (MTW loc. 66, MTW4 loc. 65, **Figure 2**) that contained partially articulated skeletons. The actual limits of this irregular feature were impossible to determine, it is likely that this context continues in trenches MTW2 and MTW3, although their stratigraphy was less clear due to erosion of the shallow deposits in the agricultural land. In all MTW contexts, no infant and few child remains were discovered. Tooth marks from the scavenging activity of mammals were recognised on many skeletal elements.



Figure 2. MTW4 locus 65, a concentration of human remains.

A second major context containing a large amount of human remains was found in trench EM and labelled as locus 6=53 (**Figure 3**). This context continued into the east as locus 29. Here, the stratum containing the human remains was very clear, linear in shape and contained disarticulated bones, mostly of young females and older children (>11 years old). Several of the skeletal elements bore signs of animal activity in the form of tooth marks (**Figure 4**). Some long bones from this context were processed and used as simple tools (**Figure 5**). In the locus above this context (loc. 25), a group of crania was found together with a small amount of post-cranial elements; a very similar assemblage was retrieved from the deep trench in EME3 loc. 55. Trench EMS contained a lens-like cluster of completely disarticulated human and animal bones that were eroded and disturbed by postdepositional processes. This cluster included a portion of a leg of an adolescent individual and an almost complete skeleton of a child with some articulations disturbed by sloping and animal activity.



Figure 3. EM locus 6, before exploration.



Figure 4. Carnivore tooth marks in an element from Tell Majnuna, EM locus 6.



Figure 5. Human bone tool, EM locus 6.

In the Areas EME and MTE (apart from EME3 loc. 55 and several single bone fragments), primarily complete and articulated skeletons were found. Most of them were heavily eroded because of their location near the soil's surface. Some (especially in MTE) were excavated or retrieved from the spoil dump only in small part. There is a large difference in age distribution in individuals retrieved between the top cemetery in Area EME and individuals buried in the roughly contemporaneous strata at Tell Brak (Area TW, see the report in this volume). Among three of the most complete individuals from Area MTE, there was one infant, one older child, and one adult. In Area EME, there were three children 4–7 years old, seven children 7–14

years old, one adolescent, 7 adult females, 7 adult males, and 10 adult individuals of unspecified sex. Considering the three most general age categories (infants up to 2 years old, all other subadults, and adults), the difference between Area TW at Tell Brak and Areas MTE and EME at Tell Majnuna is very significant, $\chi^2=52.65$, $p<0.000001$. These results suggest that burials in the inhabited quarter at Tell Brak and the cemetery at the midden outside of the inhabited area were complementary, the former having a large number of infants and the later with a strong prevalence of adults and children buried equally in both places.

In a variety of contexts at Tell Majnuna, two burial areas stood out in particular: 1) an irregular large deposit of partially articulated skeletons in Area MTW and 2) a regular, smaller, and denser deposit of disarticulated bones in EM loc. 6=53. The human remains from both areas exhibited many tooth marks. Also, the pattern of bone preservation is consistent with those observed in modern forensic cases when bodies have been scavenged by carnivores (cf. Sołtysiak 2008). In addition, the lack of infants and small proportion of older adults, as well as the high frequency of enamel hypoplasia are shared by both deposits. There are, however, some differences between these assemblages: young females and older children dominate in the EM loc. 6=53, whereas the MTW cluster includes the remains of both sexes. Also, the pattern of injuries is different with many healed cranial fractures in MTW and more signs of mechanical stress in the upper extremities of individuals recovered in EM loc. 6=53 (Sołtysiak 2010). It is possible then that both contexts reflect two distinct episodes of increased selective mortality, perhaps related to a rise in environmental stress in a dense population inhabiting the site of Tell Brak in the Late Chalcolithic 3 period.

Bones from Tell Majnuna are stored in the dig house at Tell Brak, some tooth and bone samples were moved to the Department of Bioarchaeology, University of Warsaw, Poland. A more in-depth report on the human remains from Areas MTW, EM, and EMS is forthcoming (Sołtysiak 2010).

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