Animal Bones from 'En Marzev

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A total of 836 animal bones were retrieved from Early Islamic Building ג at 'En Marzev (see Porath, this volume); 530 were identifiable. The bones were analyzed in the archaeozoology laboratory at the Tel Aviv University Institute of Archaeology. The bone material was weighed and sorted to species, and compared to the bone collection of the Institute. The total weight of the bones was 22.08 kg. The material was in a good state of preservation; some complete long bones were unearthed.

From Table 1 it can be seen that the most abundant animal in the sample is the gazelle (52.07%; MNI = 20), followed by the horse (25.85%; MNI = 4). Fish and birds were represented only by a few isolated bone fragments. The percentage of wild animals, mostly gazelles, was relatively high (c. 60%; see Table 2). The domesticated animals comprise sheep and goat (9.43%) and very few bone fragments of cattle (0.57%).

Table 1. Identified Species (MNI)

Species	No. of Fragments	%	MNI[i]
Domesticated Animals			
Bos Taurus	3	0.57	1
Camelus sp.	24	4.53	2
Equus caballus	137	25.85	4
Ovis/Capra	50	9.43	4
Wild Animals			
Aves	7	1.32	2
Gazalla dorcas	276	52.07	20
Pisces	33	6.23	1
Total	530	100.00	34

[i] Minimum number of individuals

The distribution of identifiable bones versus animal species is given in Table 3. The most frequently found gazelle bone was the lower jaw (mandibula), which was generally unearthed whole; next in frequency were ribs and metapodia. There is a slight predominance of bones from the anterior part of the gazelles' body (47 bones versus 36 bones; Table 4). It is important to note that among the 276 gazelle bone fragments, no horn cores were found. Only eight bone fragments of the studied material belonged to young animals.

The bones of sheep and goat were more-or-less equally distributed (see Table 3). The ratio between sheep and goat bones shows that there were more goats kept at 'En Marzev (based on the morphology and size of the metapodes and horns; cf. Boessneck 1969): out of 16 analyzed fragments of ovicapranae, 15 belonged to goats.

The skeletal remnants of the horse were distributed relatively equally, showing no preference of the inhabitants for any part of horse's body. The most common bones recovered from camels were phalanges (mostly Phalanx I).

Table 2. Distribution of Wild and Domesticated Fauna (according to bone fragments)

Species	N	%
Wild Animals	316	59.6
Domesticated Animals	214	40.4
Total	530	100.0

Table 3. Distribution of Identifiable Bones According to Species

Bone \ Species	*Aves*	*Bos taurus*	*Camelus sp.*	*Equus caballus*	*Gazalla dorcas*	*Ovis/ Capra*	*Pisces*
Mandibula			2	11	35	6	
Maxilla					8	2	
Scapula		1		2	17	2	
Humerus	1			6	12	1	
Ulna				2	4		
Radius				2	9		
Metacarpus			2	5	5	3	
Metatarsus			2	9	9	4	
Metapodia			2		19	5	
Pelvis			1	3	4	1	
Femur				2	13	1	
Tibia	2	1		3	6	4	
Calcneus				4	4		
Astragalus		1		2	6	3	
Phalanx I			8	4	11	4	
Phalanx II			5	4	1	4	
Phalanx III				5	1		
Horn core						5	
Molar				15	15	1	
Pre-molar					3		
Tooth fragment				4	7		14
Sacrum					2		
Carpalia				10			
Tarsalia				6	1	1	
Skull fragment					13	3	
Sterum	3						
Costae (ribs)			1	17	40		
Vertebrae	1		1	21	31		15
Fish fins							4
Total	*7*	*3*	*24*	*137*	*276*	*50*	*33*

Table 4. Comparison between Five Skeletal Elements from Anterior and Posterior Body Parts of the Gazelle

Anterior Part (fore leg)		Posterior Part (hind leg)	
Scapula	17	Pelvis	4
Humerus	12	Femur	13
Ulna	4	Tibia	6
Radius	9	Calcaneus	4
Metacarpus	5	Metatarsus	9
Total	*47*	*Total*	*36*

The bones from ‘En Marzev show that horses and gazelles were the most frequent animal remains excavated at the site. Gazelles seem to have been a main dietary component of the inhabitants, indicating also that hunting played an important role there. The paucity of bones belonging to sheep, goat and cattle is remarkable.

Comparing the osteological material from ‘En Marzev (Early Islamic) with that from Tel

Masos (Iron Age), ‘Arad (Early Bronze Age; cf. Davis 1976) and Tel Lakhish (Middle Bronze Age, Late Bronze Age, Iron Age; cf. Drori 1979), emphasizes the abundance of gazelles and horses from ‘En Marzev.

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