

[Supplementary Material]

Aurochs bone deposits at Kfar HaHoresh and the southern Levant across the agricultural transition

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Table S1. *Bos* element representation (NISP and MNE) in Locus 2268.

Element	NISP	MNE
Cranium (half)	3	1
Mandible (half)	3	1
Atlas	1	1
Axis	1	1
Cervical	9	1
Thoracic vertebra	18	2
Ribs	4	1
Lumbar vertebra	21	4
Vertebra (indeterminate)	5	1
Sacrum	4	1
Innominate	4	1
Scapula	15	1
Humerus	17	3
Scaphoid	1	1
Sesamoid	1	1
Femur	3	1

Patella	1	1
Tibia	26	6
Calcaneum	1	1
Lateral malleolus	1	1
Metatarsal	3	1
Metapodial	1	1
Second phalanx	2	1
Total	145	34

Table S2. Taphonomic data on *Bos* remains from Locus 2268 and other EPPNB contexts from the KHH 2010–2012 excavations. A) Weathering follows Behrensmeyer’s (1978) stages; low = 1–3 and high = 4–6; % weathered includes stages 1–6. B) Type of breakage. % Green Breaks (spiral/split) does not include specimens with new breaks. New breaks include specimens with one or more excavation breaks; C) fragmentation measured as NISP:MNE; D) burned *Bos* bones.






A. Weathering	Low	High	% Weathered
Locus 2268 <i>Bos</i>	63	3	45%
Other EPPNB <i>Bos</i>	31	1	34%




B. Type of Breakage	N=	Spiral/ Sliced NISP	Trans- verse NISP	Dry NISP	Total	%	New
					Ancient Breaks NISP	Green Breaks	break NISP
Locus 2268 <i>Bos</i>	14 5	25	6	6	37	67.6%	109
Other EPPNB <i>Bos</i>	93	29	5	6	40	72.5%	51
M-LPPNB <i>Bos</i>	54 3	216	74	45	335	64.5%	231

C. Fragmentation	NISP	MNE	NISP:MNE
Locus 2268 <i>Bos</i>	145	28	5.2
Other <i>Bos</i> (2010–2012 sample)	1041	161	6.4

D. Burning	Burned	Unburned	% Burned
Locus 2268 <i>Bos</i>	3	143	2%
Other <i>Bos</i> (2010–2012 sample)	246	790	24%

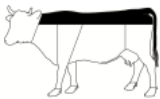


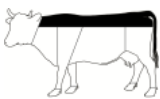
Table S3. Assemblage and feature attributes of *Bos* concentrations* .





Site	Ref.	Body parts represented	Articul							
			Deposit	ations	Human burial	Artefacts	Burned bones	Butchery	Plaster assoc.	Other taxa in deposit
Hayonim Terrace Natufian	(Munro 2012)		Str.8	✓	Several nd at site		Ash present	✓ Opened	n/a	✗
Natufian	(Munro 2012)		Str. 7	✓	Several nd at site		✗	✗	n/a	✗
Hilazon Tachtit Natufian	(Munro & Grosman 2010)		Str. B	✓	One individual on top of slab	Knapped, ground stone and bone tools, seashells, rock slab	Very little	✓ Opened	n/a	✓
KHH EPPNB	(Goring-Morris & Horwitz 2007)		L1005	✓	Young adult male on top	Grinding stone, core, marker stone	✗	✗	✓	Fox, goat
EPPNB	(This study)		L2268	✓?	Burial nearby	Blade cache, marker stone?	✓	Fresh breaks, flint embedded	✓?	Gazelle, goat, wild cat, tortoise. Nearby later midden.

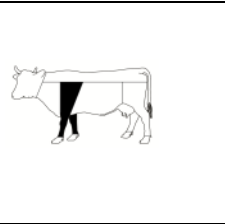
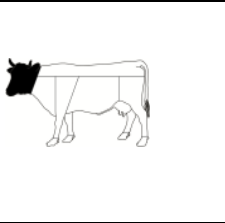
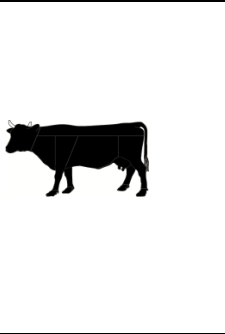
Motza EPPNB	(Sapir- Hen n.d.)		L4005	✓	In area	nd	✗	✓3	Near red plastered structure	✗
Yiftahel MPPNB	(Khalaily <i>et al.</i> 2008)		Area I	✓	Many in area	nd	nd	nd	Plastered Floor?	Nearby concentration: gazelle, goat, cattle (Gubenko & Ronen 2014)
Basta LPPNB	(Becker 2002)		Area C	✓	Burial of adult male nearby	Shell with human burial	nd	✓Cut	✗	Nearby midden: 8 goat, 1 gazelle MNI

* Bone articulations include published field observations of bones in anatomical position. Identifications of human remains listed when possible. nd=no data. L=Locus.

Table S4. Mortuary deposits with aurochs remains.

Site	Reference	Deposit type	Anatomical area present	Articulations	Human bones	Artefacts	Tools	Burning	Butchery	Plaster assoc.	Other taxa in deposit
Kharaneh IV Early Epi	(Maher <i>et al.</i> 2012)	Foundation deposit in St.1		✓	2 males	Ground stone, red ochre, pierced shells	nd	Char-coal	nd	n/a	nd
Early Epi		Cache in St.2		✗	2 males	nd	Chipped stone debris	✗	nd	n/a	Burned gazelle horncores, Covered by bone midden
‘Uyun al-Hammam Mid-Epi	(Maher <i>et al.</i> 2011)	Patella and Carved Radius in Burial Inclusion		✗	2 adults	Red ochre	Chipped, ground-stone tools	nd	nd	n/a	Fox, deer, gazelle, tortoise
Hilazon Tachtit Natufian	(Grosman <i>et al.</i> 2008)	Burial Inclusion in St. A		✓	Adult female	Basalt bowl, pol. pebble	Bone tool	nd	nd	n/a	Tortoise, gazelle horncore, shell, eagle, marten,

										leopard, wild boar	
Azraq 18 Natufian	(Bocquent in & Garrard 2016)	Burial Marker		✗	8 individuals	nd	nd	nd	nd	nd	nd
Hatoula PPNA	(Le Morte 1994)	Bucranium Burial Inclusion		✗	Adult female	nd	nd	nd	nd	nd	nd
Mishmar HaEmek E/MPPNB	(Barzilai & Getzov 2008)	Phalanges as Burial Inclusions		✓	Adult female	Perforated cowrie	nd	nd	✗	✓	shell
KHH LPPNB	(Goring-Morris <i>et al.</i> 1998)	Bone Arrangement L 1003	Mostly post-cranial	✗	Human bones	Pierced cowrie, pol. pebble	Axe, blade, stone polisher	Ash	nd	✓?	Human bone arrangement with articulated gazelle bones
Atlit Yam PPNC	(Galili <i>et al.</i> 2005)	Two Burials with Bucrania Inclusions		✗	Adult & child	clay	nd	nd	nd	nd	nd

'Ain Ghazal MPPNB	(Rollefson 1986)	Carved Bones in Feature Inclusion		x	x	<i>Bos</i> figurine	x	x	Carved	Plaster lined	x
Ghawir I MPPNB	(Simmons & Najjar 2006)	Bucranium in Architectural Display		x	Infant in area	Malachite blanks, polishing stone	Blade and point cache	nd	nd	Plaster floor	4 Goat crania
Yiftah'el MPPNB	(Alhaique & Horwitz 2012)	Faunal Concentration Sq. J20 Area D		✓	Burial 1 meter away	Miniature votive axe	nd	Low freq.	nd	nd	Gazelle, goat, fox (with articulations)
KHH M-LPPNB	2010-2012 sample	Midden		✓	Scattered remains in area	Pol. pebbles, very diverse artefacts	Flint (debitage, finished), bone tools	More	✓	✓	All taxa. Gazelle, <i>Bos</i> , tortoise articulations
Atlit Yam PPNC	(Horwitz & Tchernov 1987)	Faunal Concentration at		nd	nd	nd	Flint debitage, tool con-	nd	nd	nd	Goat, pig and fish

Structure 9		centration
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Includes diverse deposit types that do not fit *Bos* concentration criteria and are less clearly associated with burials. pol=polished.
nd=no data.