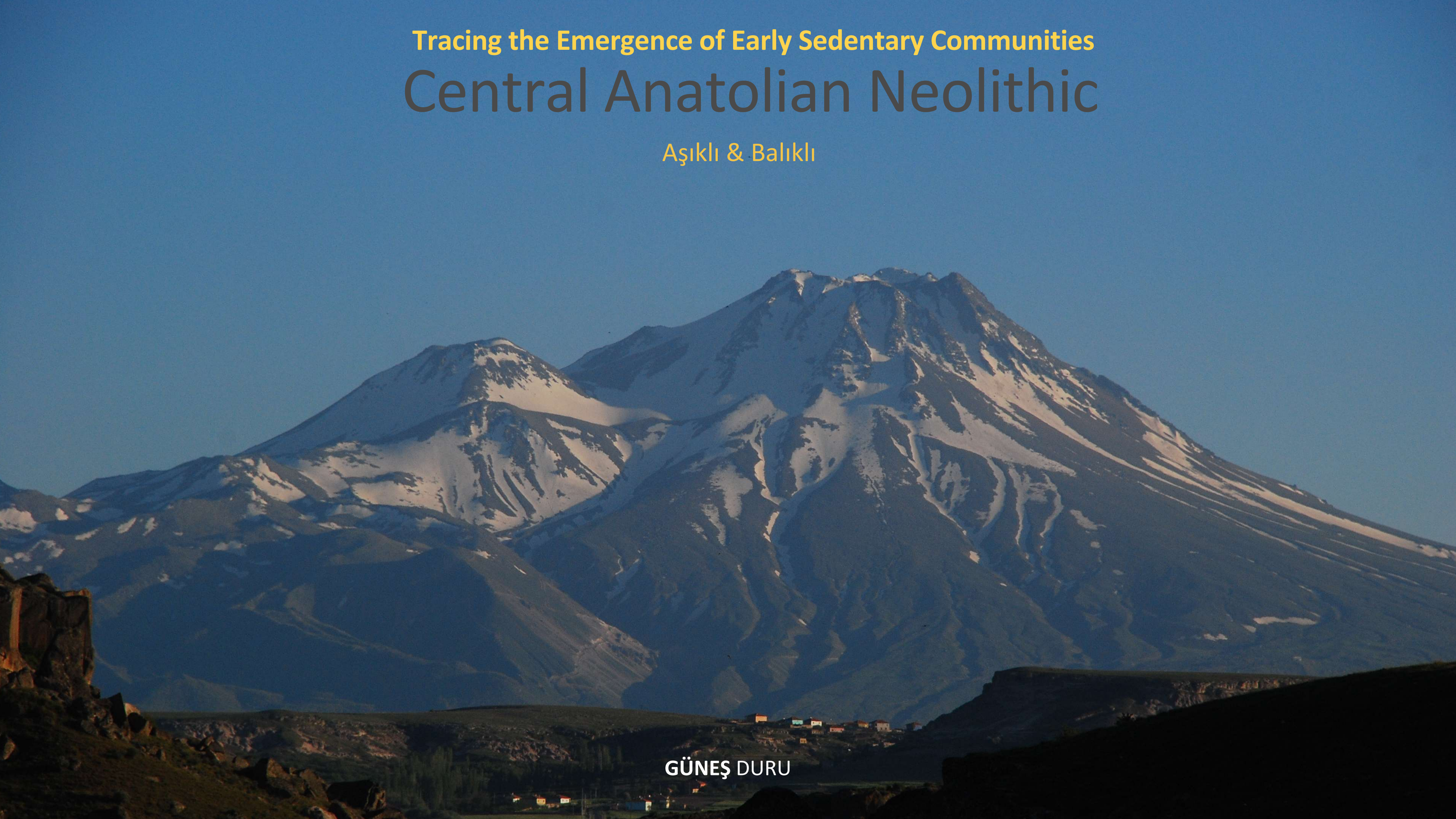
Tracing the Emergence of Early Sedentary Communities

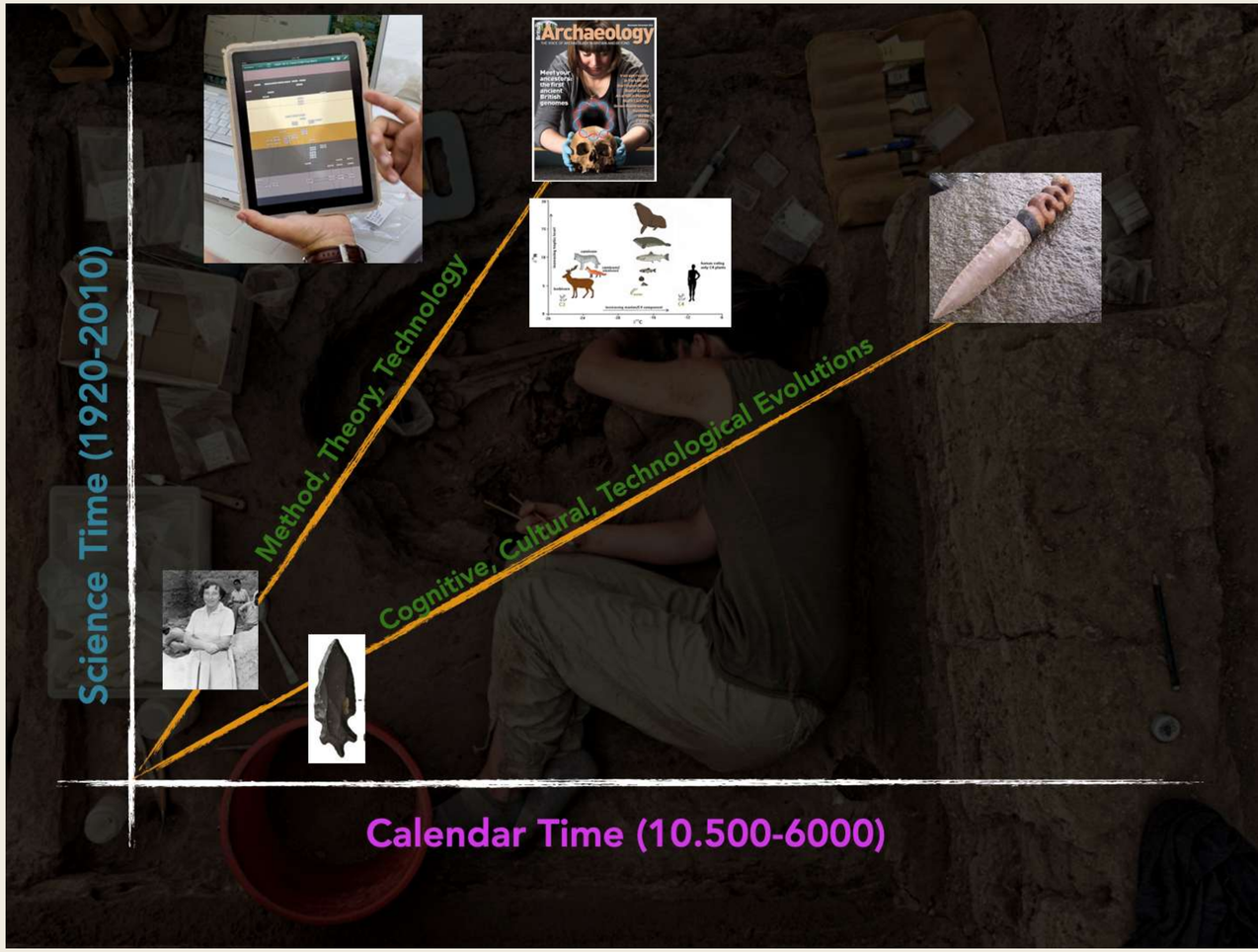
Central Anatolian Neolithic

Aşıklı & Balıklı



GÜNEŞ DURU




Archaeology
Science Time (1920-2010)
Method, Theory, Technology
Cognitive, Cultural, Technological Evolutions
Calendar Time (10.500-6000)















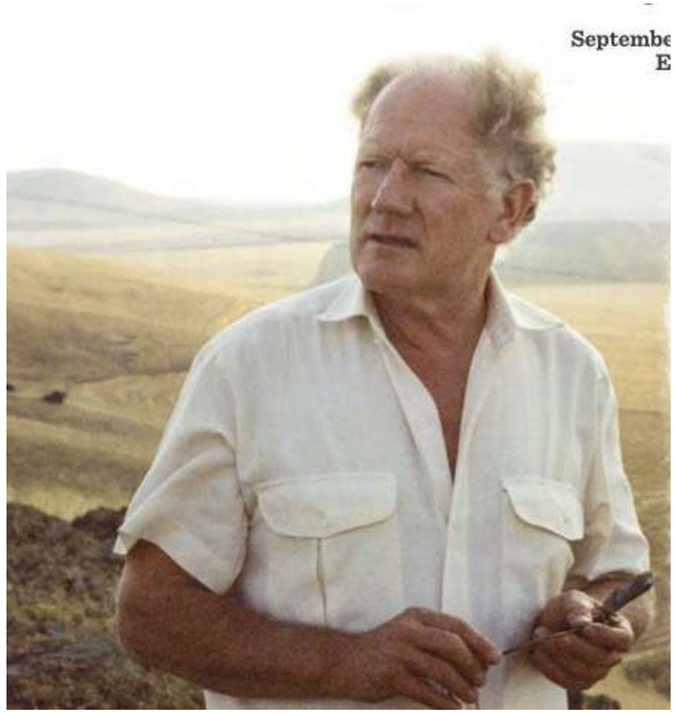
BIAA British Institute at Ankara



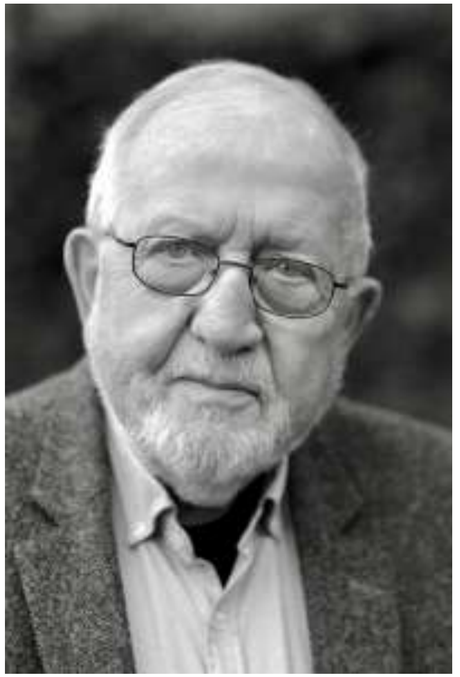
James Mellaart



Ian Todd



David French



Trevor Watkins

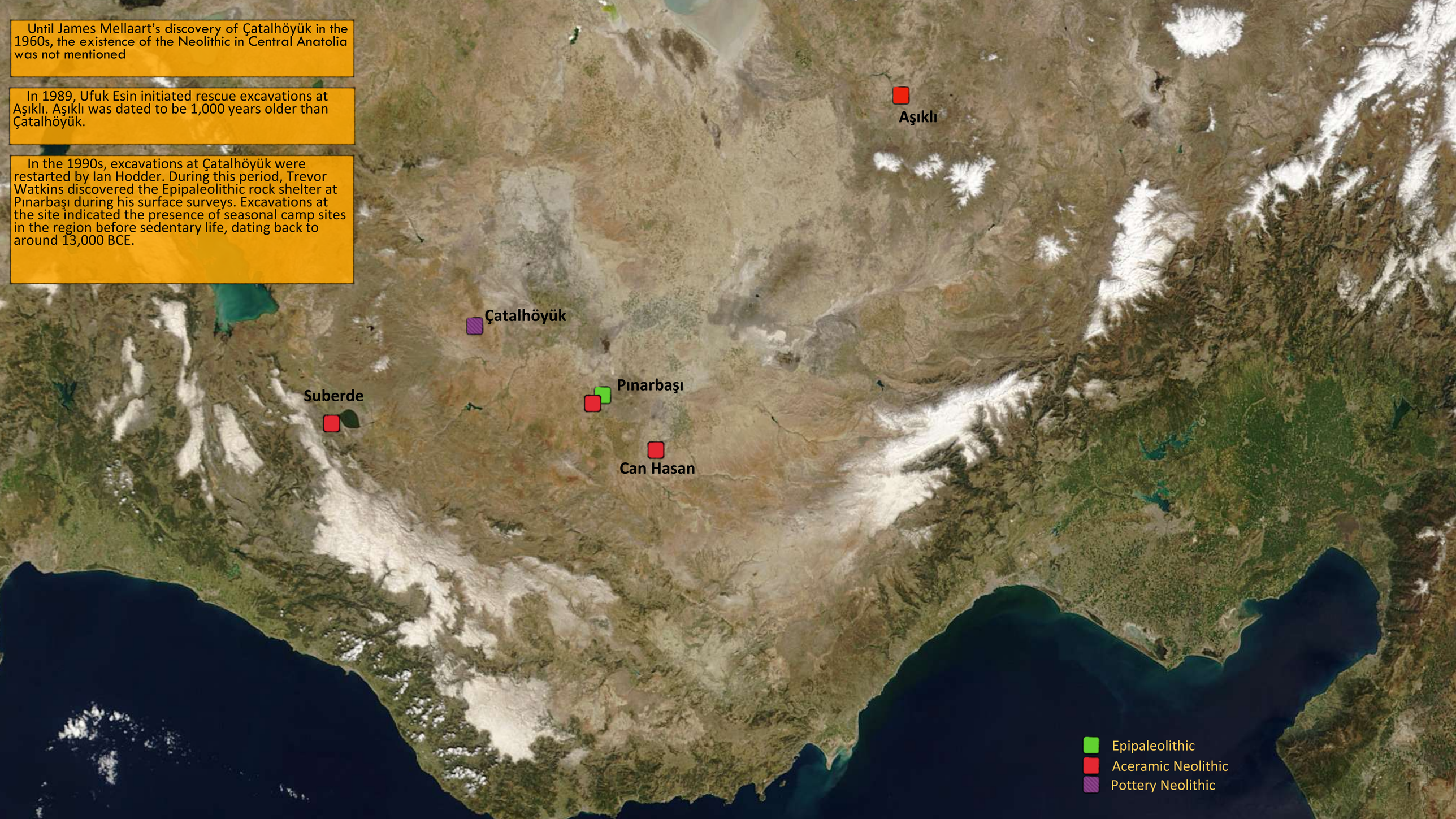

Ian Hodder
Mihriban Özbaşaran
Shahina Farid
Gunes Duru


ÇATALHÖYÜK

Until James Mellaart's discovery of Çatalhöyük in the 1960s, the existence of the Neolithic in Central Anatolia was not mentioned

In 1989, Ufuk Esin initiated rescue excavations at Aşıklı. Aşıklı was dated to be 1,000 years older than Çatalhöyük.

In the 1990s, excavations at Çatalhöyük were restarted by Ian Hodder. During this period, Trevor Watkins discovered the Epipaleolithic rock shelter at Pınarbaşı during his surface surveys. Excavations at the site indicated the presence of seasonal camp sites in the region before sedentary life, dating back to around 13,000 BCE.



In 1997, excavations were carried out at the Kaletepe obsidian workshops, revealing that the workshop was likely used by non-local knappers for the production of Naviform products,

In 2006, Douglas Baird initiated excavations at Boncuklu. This settlement was contemporary with Aşıklı and was dated to be 1,000 years older than Çatalhöyük.

Also in 2006, a new phase of excavations began at Aşıklı, led by Mihriban Özbaşaran. The team focused on the earlier layers of Aşıklı and conducted micro-scale excavations.

2016, during our sensitive surveys, Balıklı was discovered. This community, contemporary with the earliest layers of Aşıklı, was socio-culturally very different from Aşıklı

Balıklı

Aşıklı

OBSIDIAN SOURCE

Kaletepe

Boncuklu

Çatalhöyük

Pınarbaşı

Suberde

Direkli

Can Hasan

Eşek Deresi Mağarası



Epipaleolithic
Aceramic Neolithic
Pottery Neolithic



OBSIDIAN SOURCES

Kaletepe

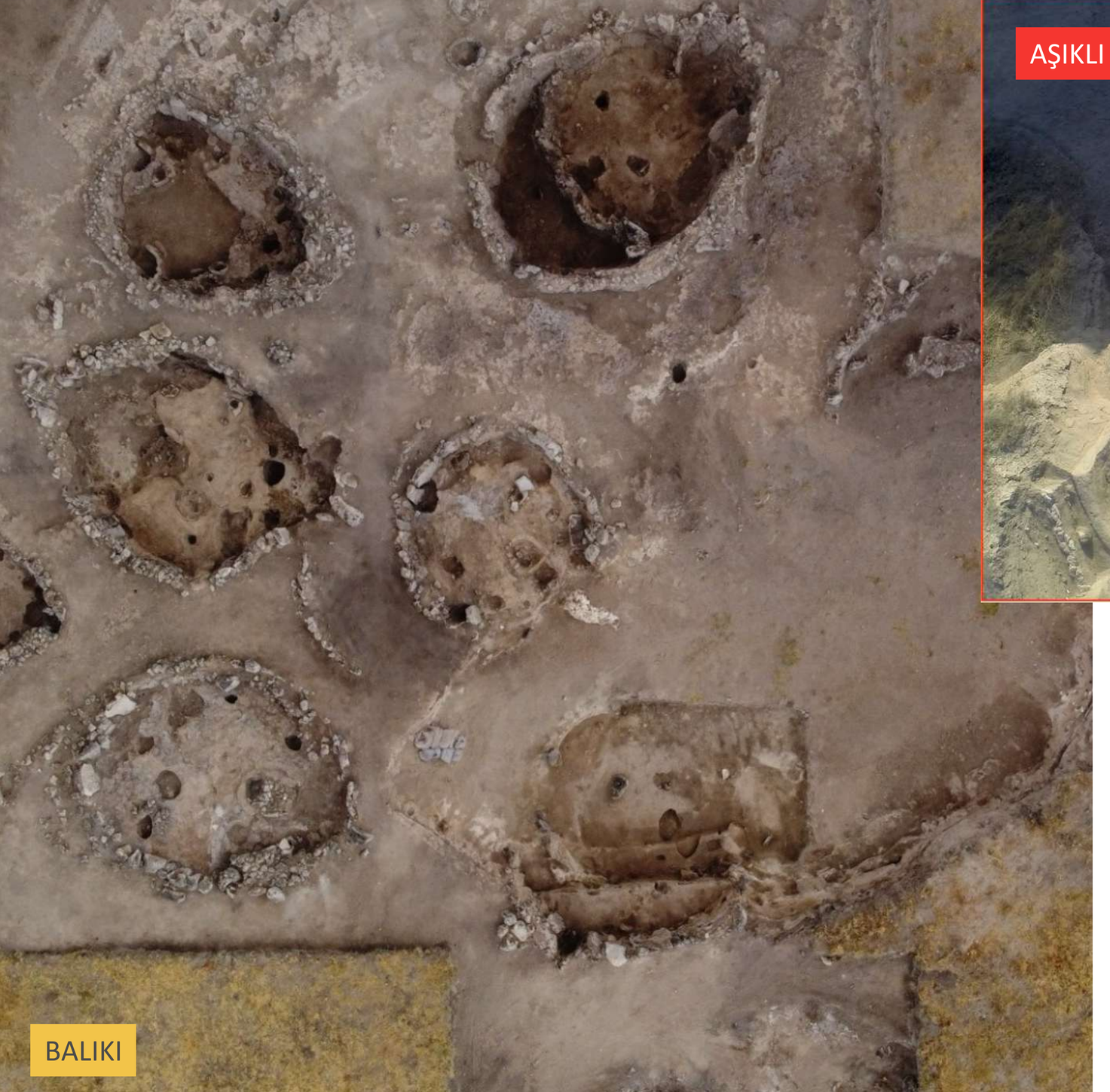
Pınarbaşı

Direkli

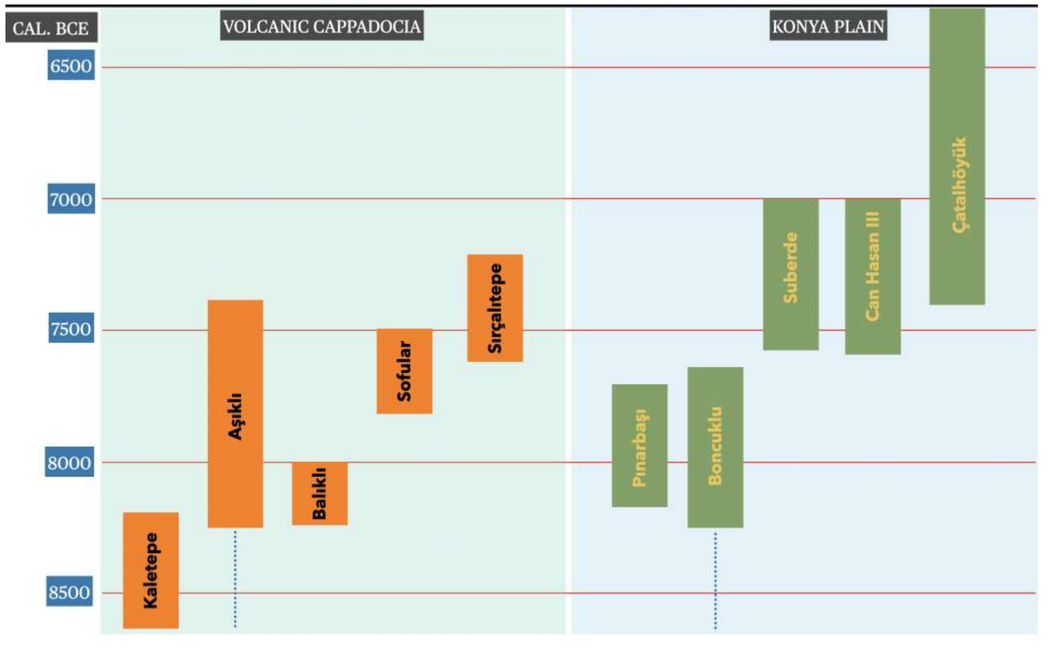
Eşek Deresi Mağarası

Ökizini

We have significant data on the Epipaleolithic in Central Anatolia and its surroundings; however, there is currently a gap between 11,000 and 8,300 years ago. During this period, our knowledge of what was happening in Central Anatolia is limited, except for the Levantine knappers who came to Kaletepe/Göllüdağ for obsidian even before 8,300 BCE


BALIKI


AŞIKLI


CAL. BCE
VOLCANIC CAPPADOCIA
KONYA PLAIN
6500
7000
7500
8000
8500
Kaletepe
Aşıklı
Balıklı
Sofular
Sırçalıtepe
Pınarbaşı
Boncuklu
Suberde
Can Hasan III
Çatalhöyük







WEST SECTION



AŞIKLI HÖYÜK



9th millenium BCE



8th millenium BCE

calB CE	LEVELS
7300	1
7500	2A-C
	2D-G
7750	2H-J
8050	3
8200	4
8400	5





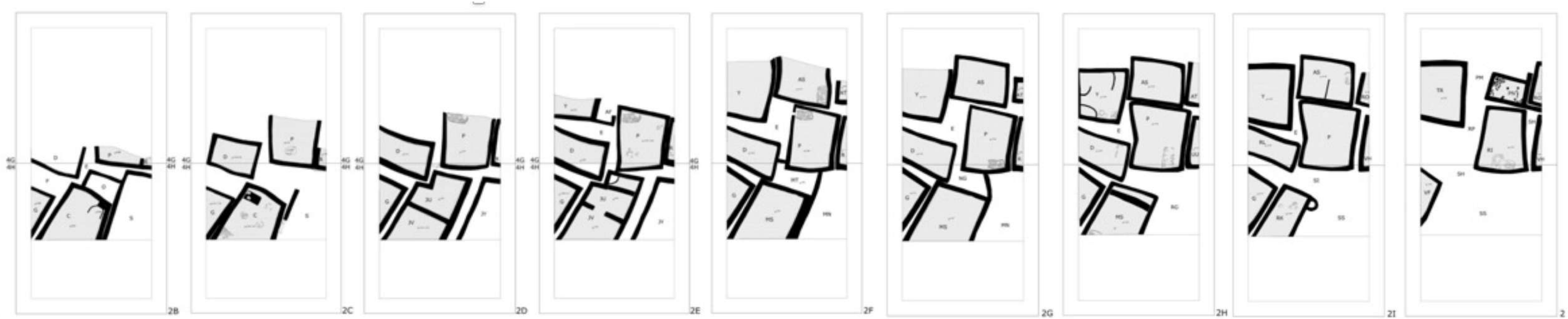




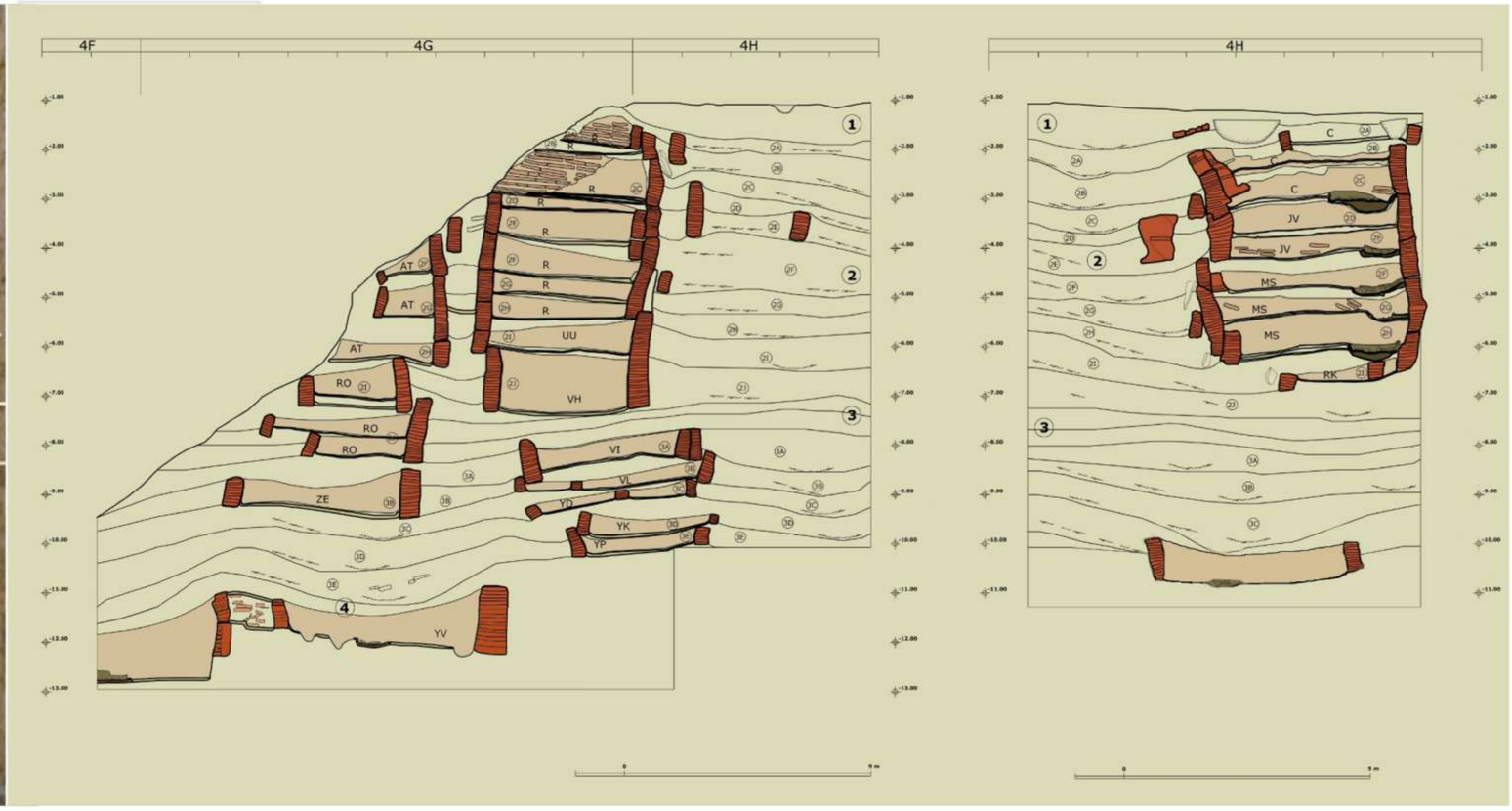
This stage was dominated by quadrangular surface structures built of sun dried mud bricks with flat roofs.

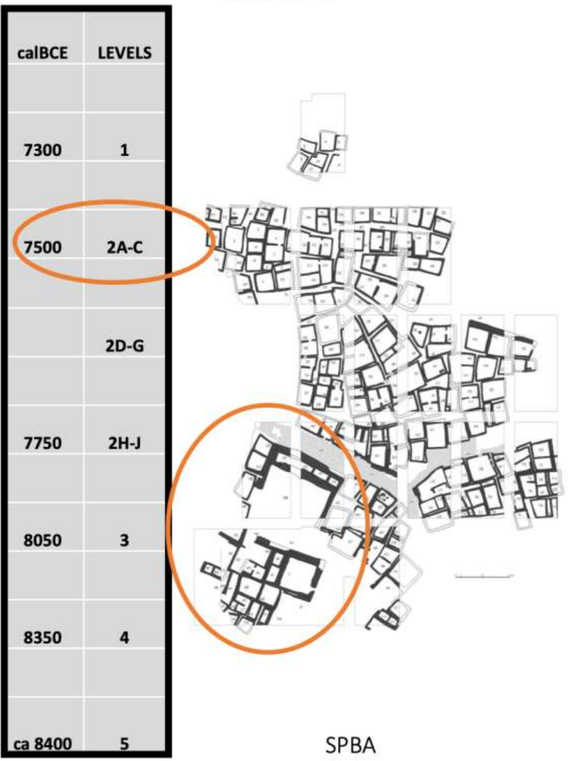


Level 2 (2A-2J) 7950 – 7300 BCE







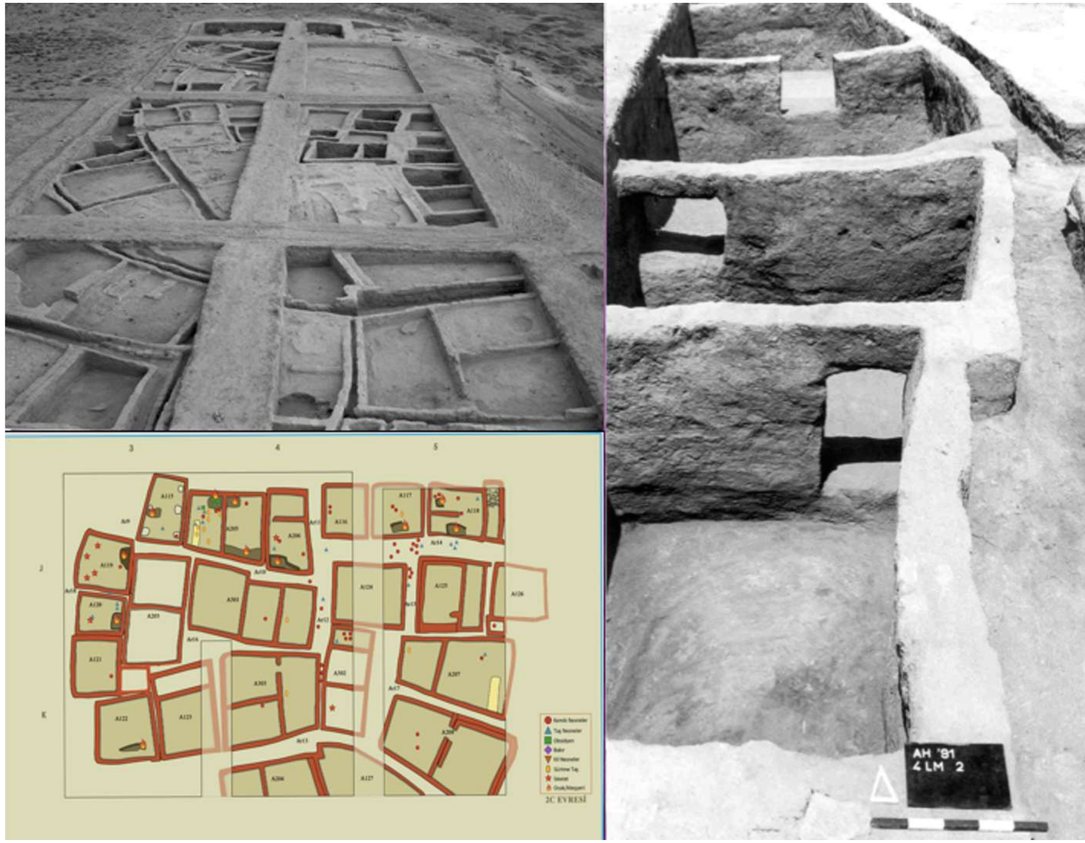


Level 2A-C

SPBA



Special Purpose Buildings



Cluster Neighbourhoods

calBCE	LEVELS
7300	1
7500	2A-C
	2D-G
7750	2H-J
8050	3
8350	4
ca 8400	5

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journal homepage: www.elsevier.com/locate/jas

The impact of the transition from broad-spectrum hunting to sheep herding on human meat consumption: Multi-isotopic analyses of human bone collagen at Aşıklı Höyük, Turkey

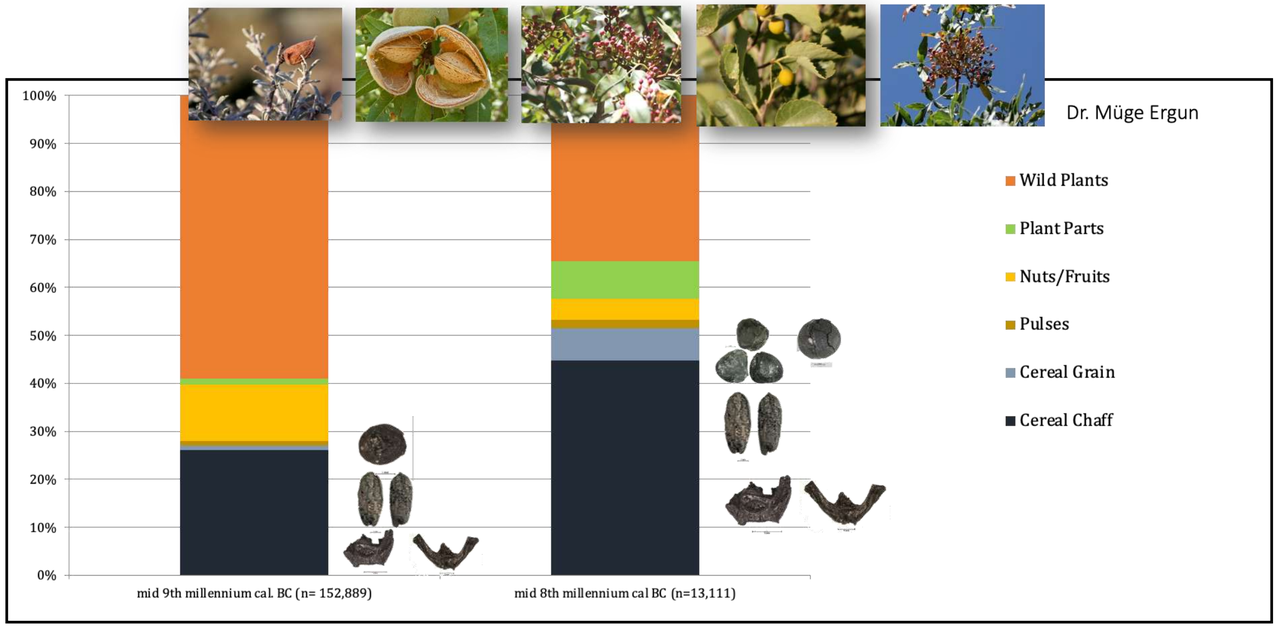
Yu Itahashi [a,b,*], Mary C. Stiner [c], Omur Dilek Erdal [d], Güneş Duru [e], Yilmaz Selim Erdal [d], Yutaka Miyake [a], Demet Güral [f], Minoru Yoneda [b], Mihriban Özbaşaran [g]

[a] Faculty of Humanities and Social Sciences, University of Tsukuba, Tennodai-1-1-1, Tsukuba, Ibaraki, 305-8571, Japan
[b] The University Museum, The University of Tokyo, Hongo 7-3-1, Bunkyo, Tokyo, 113-0033, Japan
[c] School of Anthropology, University of Arizona, Tucson, AZ, 85721-0030, USA
[d] Department of Anthropology, Hacettepe University, Beytepe, 06800 Çankaya, Ankara, 06532, Turkey
[e] Mimar Sinan Fine Arts University, Fürüzağa Hasan Efendi, Meclis-i Mebusan Cd. No.24 34427 Beyoğlu, İstanbul, Turkey
[f] Friends of Aşıklı Society, Istanbul, Turkey
[g] Faculty of Letters, Istanbul University, Beyazıt/Fatih, 34452, İstanbul, Turkey



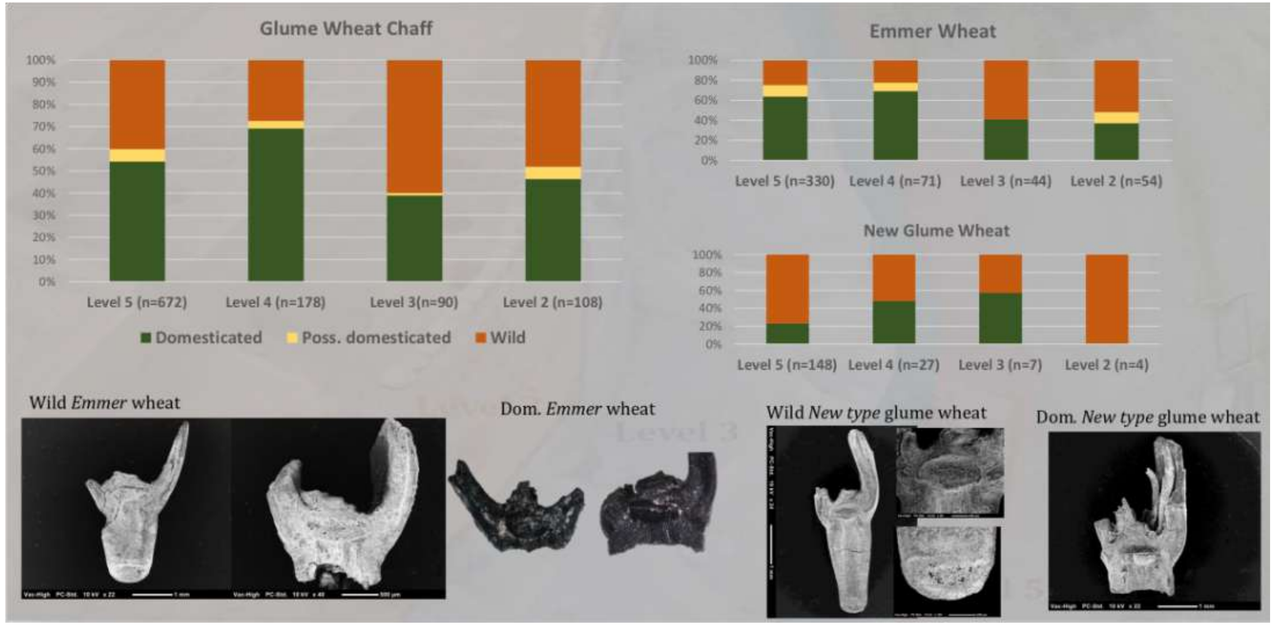
Summary results of isotopic analyses of human remains by level in Aşıklı Höyük (N=44).

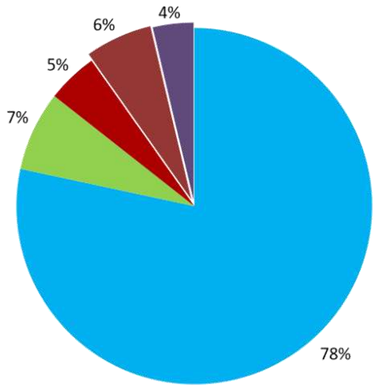
Sex/Age	Level	n	$\delta^{13}C_{col}$		$\delta^{15}N_{col}$		n	$\delta^{15}N_{Glu}$		$\delta^{15}N_{Phe}$		$\Delta^{15}N_{Phe\text{-}Glu}$		TP$_{Asp}$	
All	Level 2 upper:	24	−18.8	±0.5	10.2	±1.0	23	13.5	±1.7	10.6	±1.5	2.8	±1.4	2.5	±0.2
Child		3	−18.6	±0.5	9.9	±0.6	3	13.4	±0.5	10.1	±0.4	3.2	±0.1	2.5	±0.0
Female		15	−18.9	±0.6	10.0	±1.0	14	13.3	±1.8	10.5	±1.5	2.9	±1.3	2.5	±0.2
Male		6	−18.5	±0.3	10.7	±1.2	6	13.8	±1.8	11.2	±1.6	2.6	±2.1	2.4	±0.3
All	Level 2 lower:	10	−18.8	±0.6	10.2	±1.1	10	13.1	±1.3	10.1	±1.4	3.1	±1.0	2.5	±0.1
Child		1	−18.4		9.6		1	12.3		8.4		3.9		2.6	
Female		5	−19.1	±0.7	9.7	±0.6	5	12.8	±1.6	10.6	±1.7	2.2	±0.3	2.4	±0.0
Male		4	−18.6	±0.3	11.0	±1.4	4	13.7	±0.7	9.8	±1.0	3.9	±0.7	2.6	±0.1
All	Level 3:	5	−19.0	±0.1	9.4	±0.3	5	12.0	±1.2	9.7	±1.5	2.2	±0.5	2.4	±0.1
Female		3	−19.0	±0.1	9.4	±0.4	3	12.4	±1.5	2.4	±1.9	2.1	±0.8	2.4	±0.1
Male		2	−19.0	±0.2	9.3	±0.2	2	11.3	±0.4	9.0	±0.4	2.3	±0.0	2.4	±0.0
All	Level 4:	5	−19.2	±0.1	8.9	±0.7	5	14.5	±1.3	11.6	±1.1	2.5	±0.8	2.5	±0.1
Child		2	−19.1	±0.2	9.0	±1.1	2	15.8	±1.0	12.4	±0.2	3.4	±1.2	2.6	±0.2
Female		3	−19.2	±0.1	8.9	±0.5	3	13.7	±0.7	11.1	±1.1	2.6	±0.5	2.4	±0.1



Distribution of plant remains: Species remain similar but ratios change

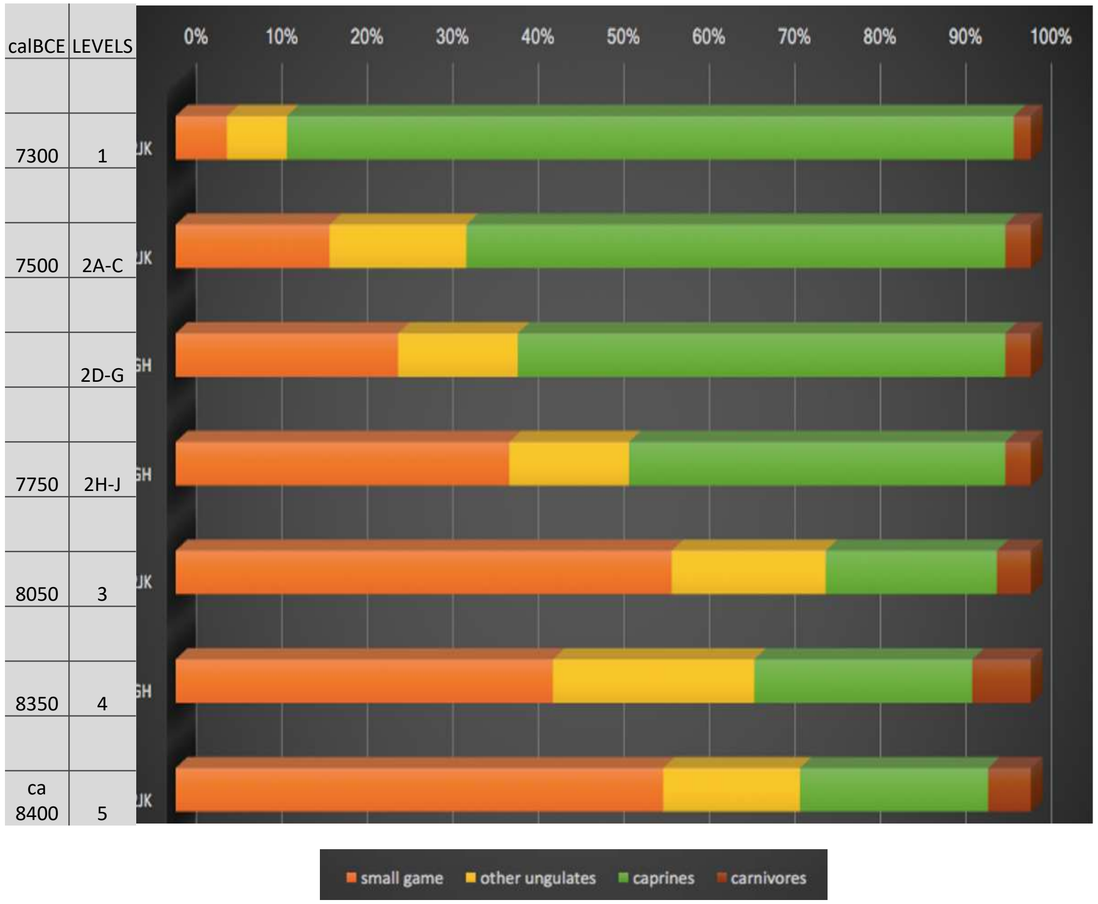
wild/domestic	9th mill. cal. BC Level 5 (n=11,486)	Level 4 (n=3,182)	Level 3 (n=1,472)	8th mill. cal BC Level 2 (n=3,365)
Emmer wheat	**%82**	**%72**	**%51**	**%53**
New Glume wheat	%10	%10	%7	%4
Einkorn wheat	%1	%2	%1	%3
Free-threshing wheat	**%5**	**%5**	**%28**	**%28**
Barley	**%2**	**%10**	**%13**	**%12**





Total (N= 33,332)

- emmer wheat (*T. turgidum dicoccum*)
- einkorn (*T. monococcum monococcum*)
- free-threshing wheat (*T. aestivum/durum*)
- “new glume” wheat
- wild and domestic forms of barley (*Hordeum distichum/vulgare)*



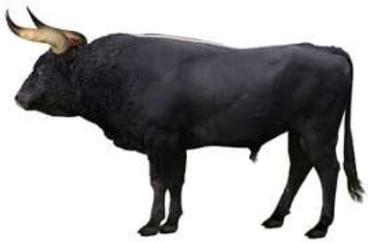
Wild sheep (*Ovis orientalis*)
Wild goat (*Capra aegagrus*)
Aurochs (*Bos primigenius*)
Red deer (*Cervus elaphus*)
Wild boar (*Sus scrofa*)
Horse (*Equus ferus*)
Onager (*Equus hemionus*
Roe deer (*Capreolus capreolus)*
Fallow deer (*Dama dama mesopotamica*)





Yaban koyunu

Yaban keçisi



Yaban sığırı

FOCUS IN OVIS, CAPRA, AUROCHS 8TH MILL BCE

Hares
River fish (*Barbus plebejus/capito*)
Tortoise
Pond turtle
Hedgehogs
Bustard,
Partridge
Common crane
Owls
Raptors….















VARIETY IN FAUNA MID-9TH MILL BCE







Storage pits for dried meat (?)

Enclosures for animals:
fragments of collapsed
wattle and daub
walls and roof (?)



Reconstruction of an enclosure



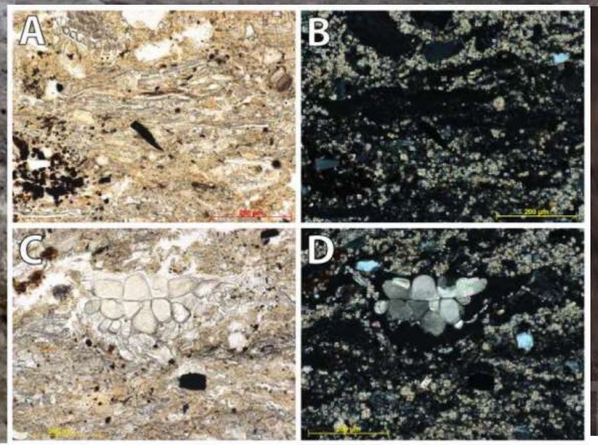
Boiling pits










A
B
C
D




Kullanım artıkları
Koyun/keçilerin tutulan yer
Kullanım artıkları
Koyun/keçilerin tutulan yer
Antropojenik dolgu
15 cm
8 cm

Levels 5 and 4

calBCE	LEVELS
7300	1
7500	2A-C
	2D-G
7750	2H-J
8050	3
8350	4
ca 8400	5



The earliest constructions were comparatively fragile.
They were simple subterranean buildings dug into the alluvial fill with plastered walls and floors.

	PHASE EVRE	DWELLINGS KONUTLAR	SPECIAL PURPOSE BUILDINGS ÖZEL AMAÇLI YAPILAR
LEVEL 1 TABAKA 1			
LEVEL 2 TABAKA 2	2 (A-B)		
	2C		
	2D		
	2E		
	2F		
	2G		
	2H		
	2I		
	2J		
LEVEL 3 TABAKA 3	3 (A-E)		
LEVEL 4 TABAKA 4	4 (A-C)		
LEVEL 5 TABAKA 5			

AŞIKLI HÖYÜK
TYPOLOGY OF BUILDINGS /

AŞIKLI

LEVEL 4

c	calBCE	LEVELS
	7300	1
	7500	2A-C
		2D-G
	7750	2H-J
	8050	3
	8350	4
c	ca 8400	5



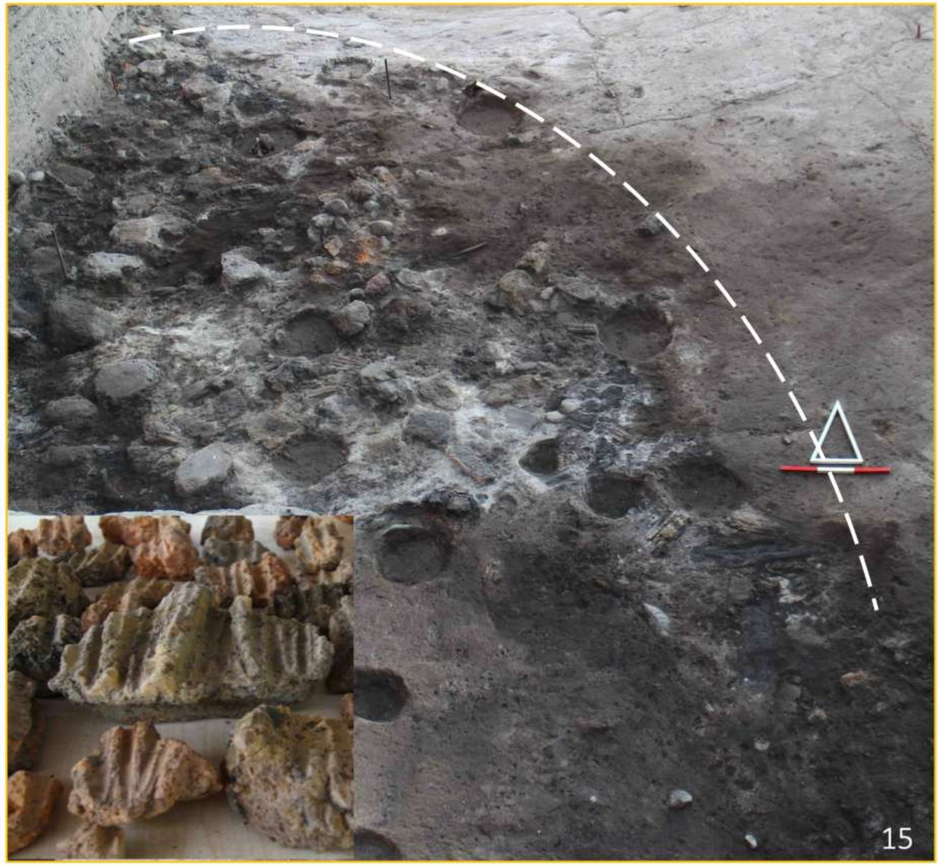


Semi-subterranean oval buildings





Wattle and daub structures for animal penning



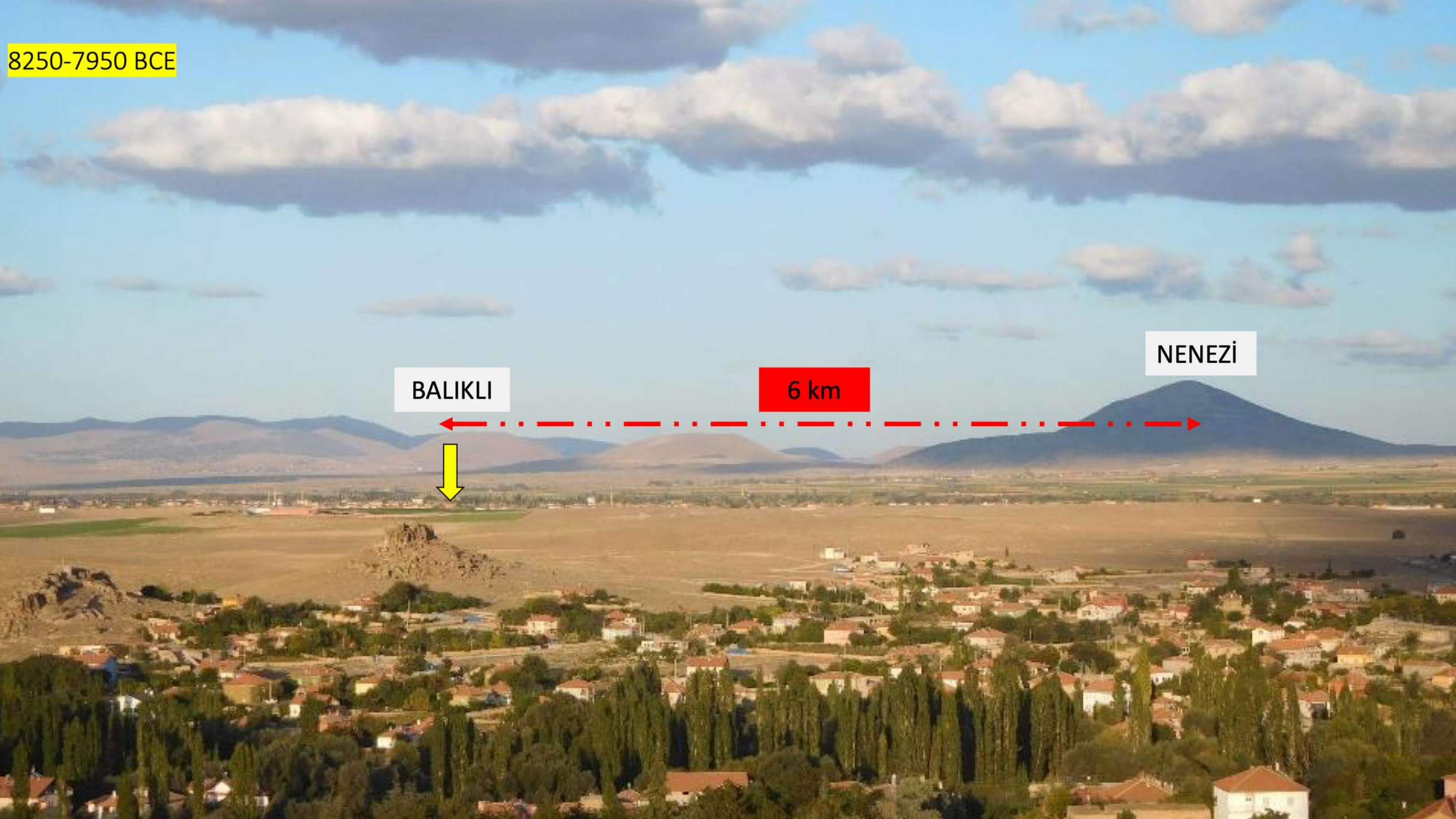
calBCE	LEVELS
7300	1
7500	2A-C
	2D-G
7750	2H-J
8050	3
8350	4
ca 8400	5



DENSE ROUND ARCHITECTURE, COLLECTIVE BUILDINGS

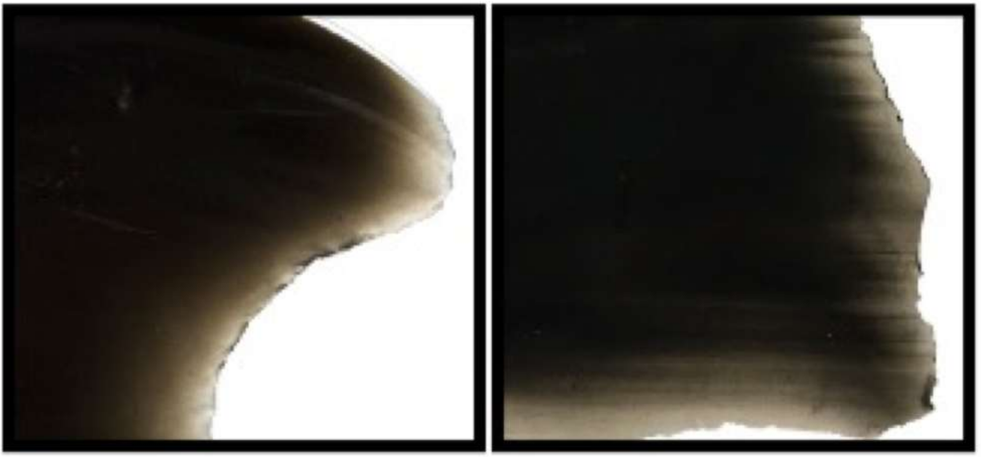
Balıklı




8250-7950 BCE
BALIKLI
6 km
NENEZİ



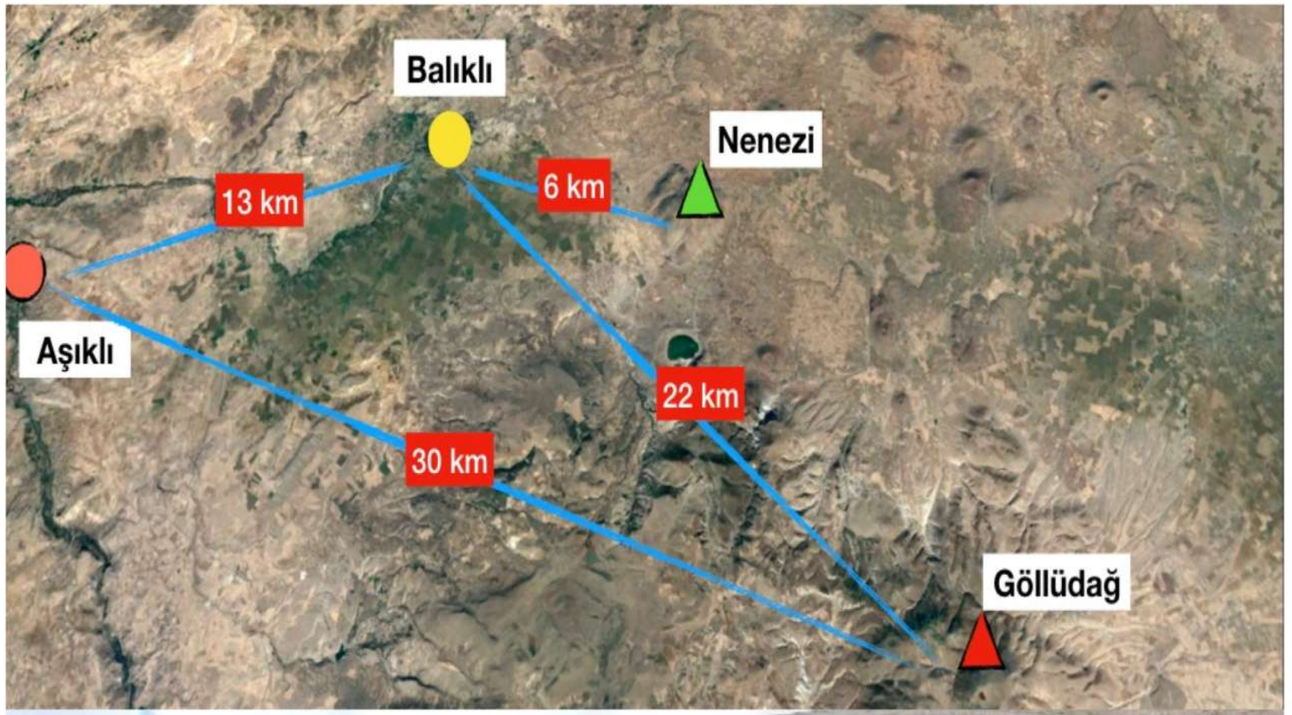
Göllüdağ



Nenezi



Acıgöl



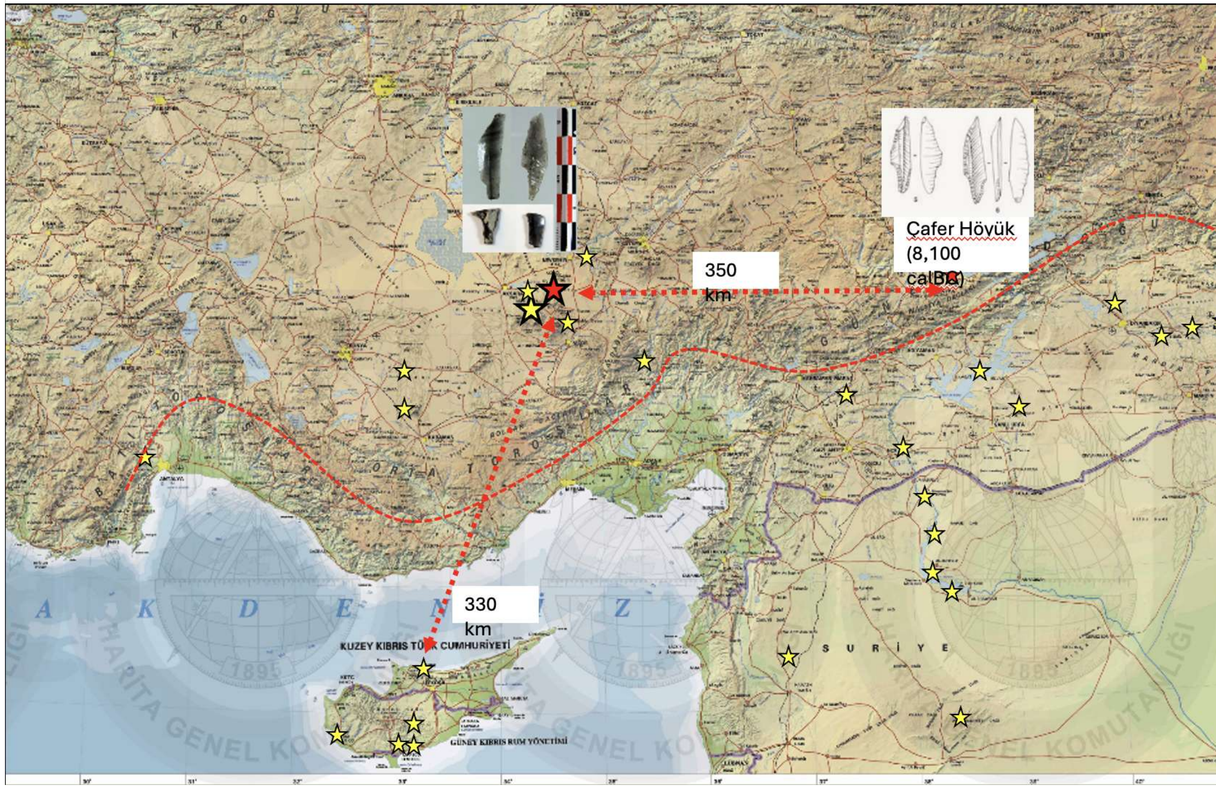






The evidence is provided by a group of obsidian points. These points are asymmetric, single-shouldered and tanged. They are almost identical to two items found in the basal levels (dated to 8300-8200 BC) at Caferhöyük, on the uppermost Middle Euphrates, where they were defined as “**Cafer Points**” by **M. C. Cauvin**. Although only two were recovered at Caferhöyük, they are quite numerous at Balıklı.

Terminal Pleistocene/Early Holocene sites in Anatolia, northern Levant & Cyprus





BALIKLI





AŞIKLI

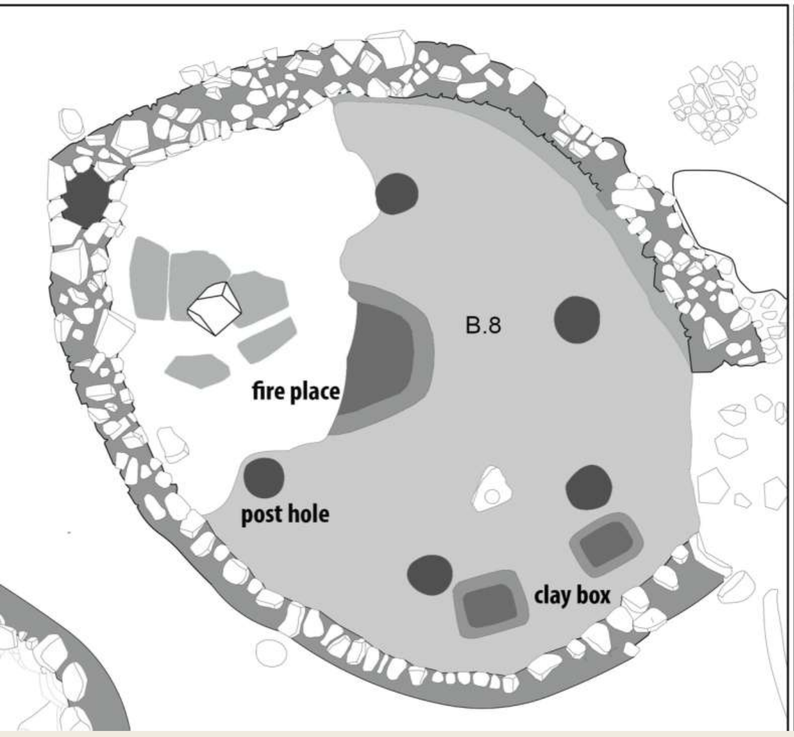


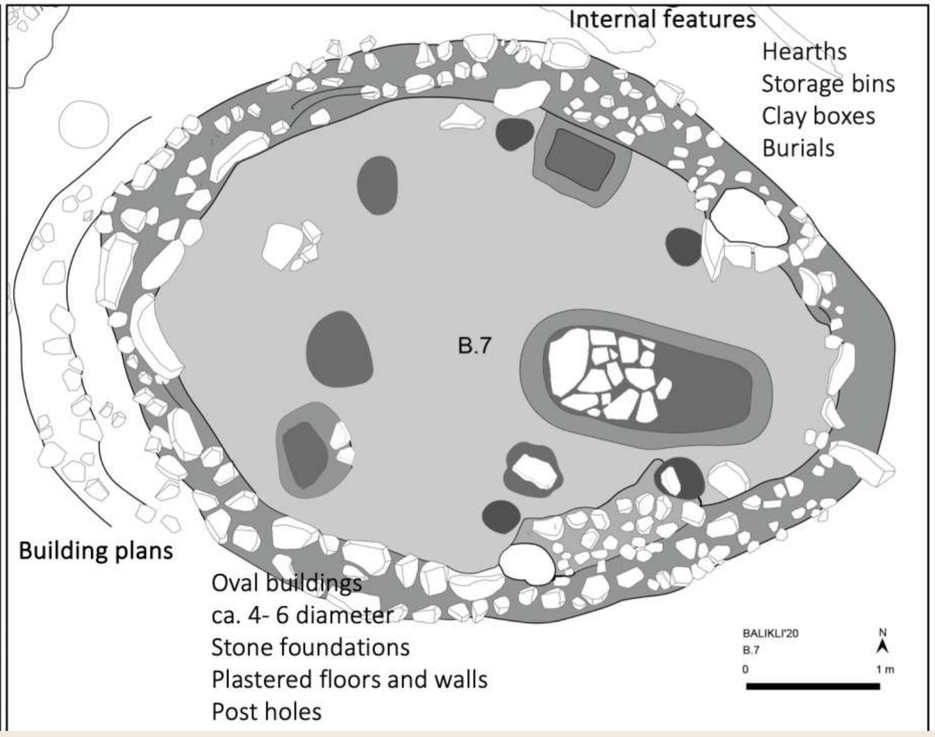

B 18
B 16
B 5
B 15
B17
B 3
B 7
B 4 / 14
B 1
BULLDOZER DESTRUCTION
B 9
B 8
B 6
B 13
BULLDOZER DESTRUCTION
B 11
B 10

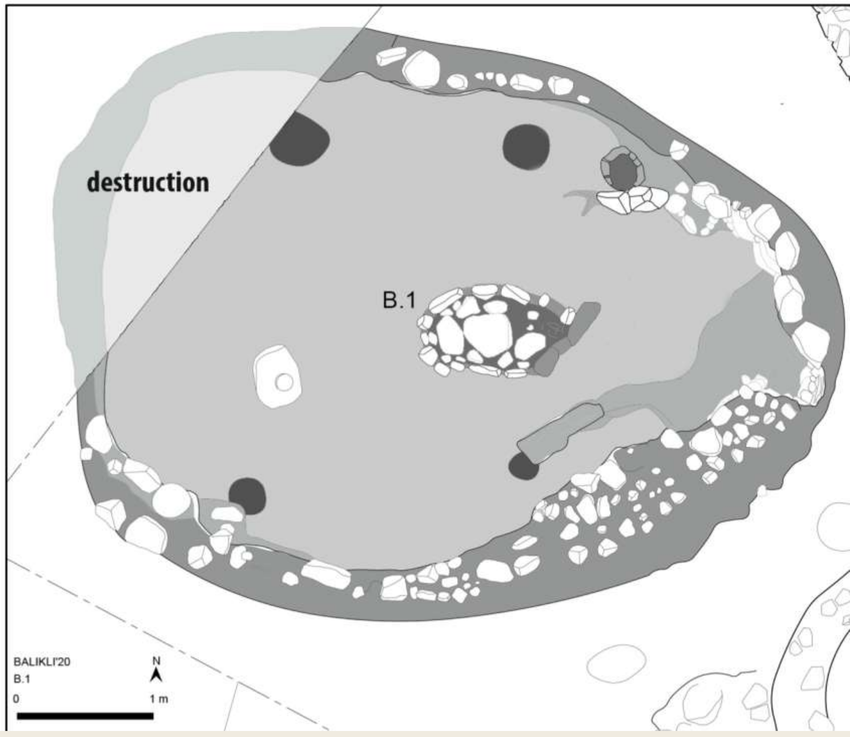


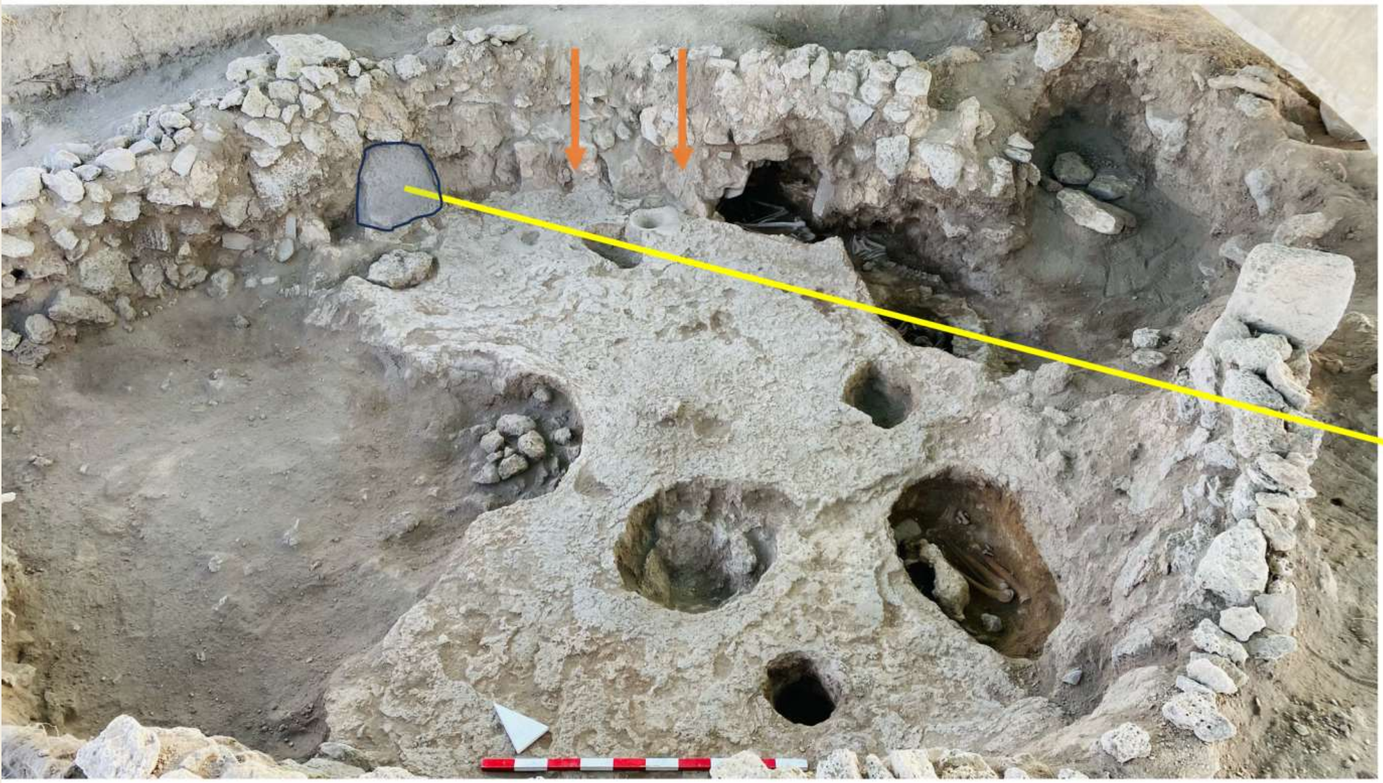





B.8
fire place
post hole
clay box

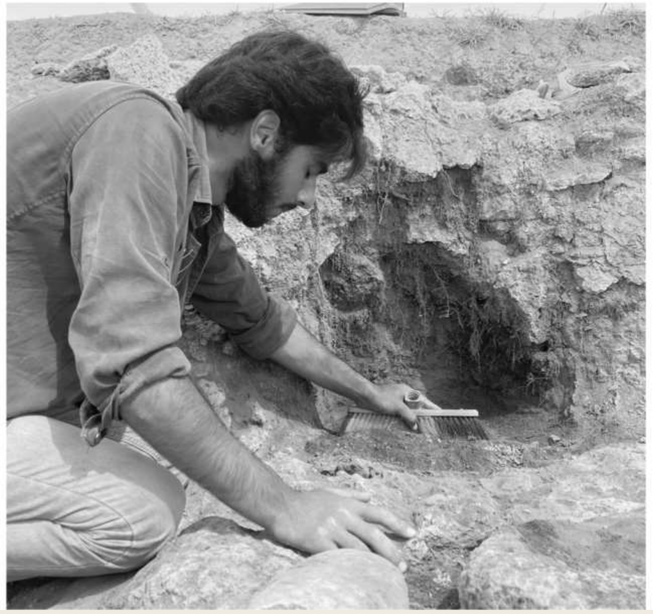

Internal features
Hearths
Storage bins
Clay boxes
Burials
B.7
Building plans
Oval buildings
ca. 4- 6 diameter
Stone foundations
Plastered floors and walls
Post holes
BALIKLI'20
B.7
N
0
1 m

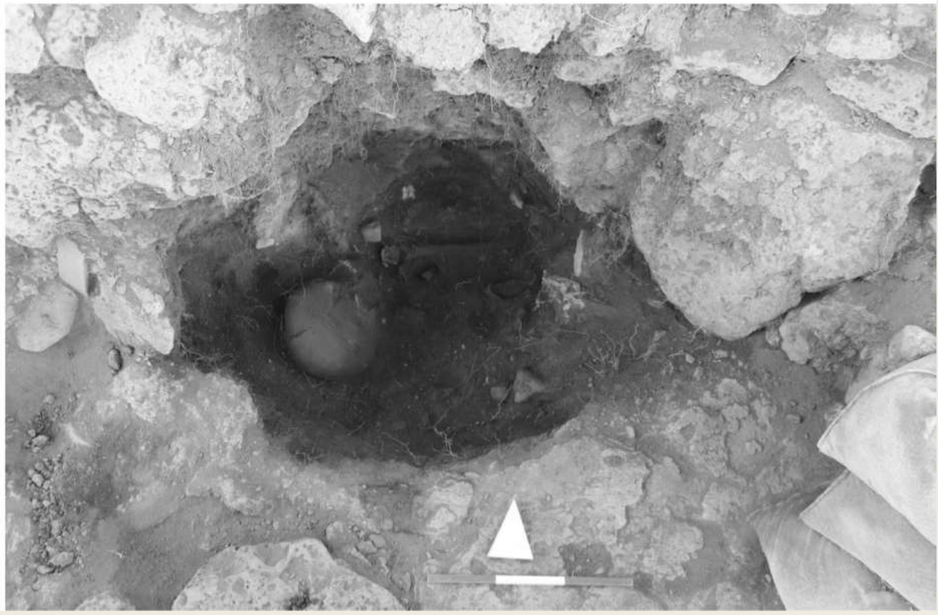

destruction
B.1
BALIKLI'20
B.1
N
0
1 m

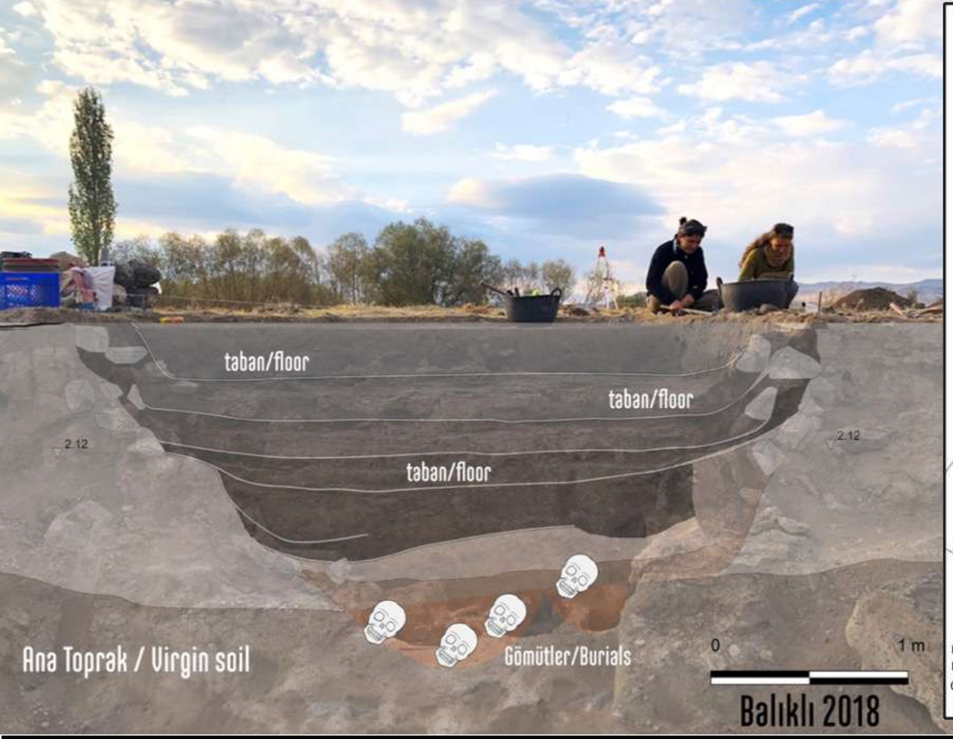


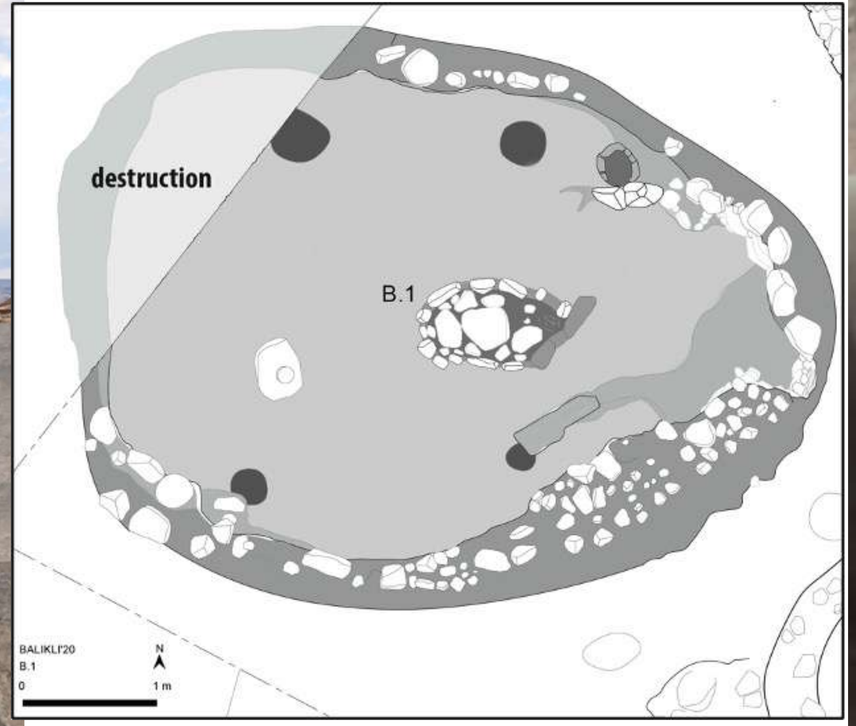









taban/floor
taban/floor
taban/floor
2.12
2.12
Ana Toprak / Virgin soil
Gömütler/Burials
0
1 m
Balıklı 2018


destruction
B.1
BALIKLI'20
B.1
0
N
1 m

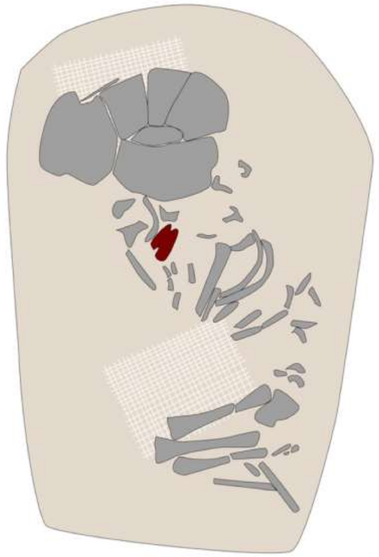




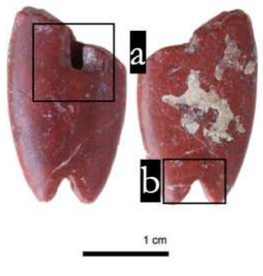

20 cm


SK 38
SK 36
SK 37
SK 52
SK 11
SK 47
B 4-14

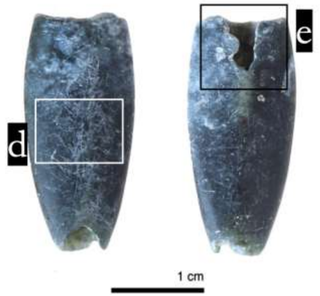
An infant: SK36



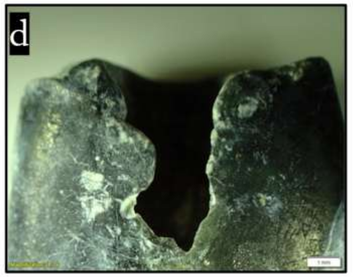
On the chest, placed underneath an obsidian blade



Underneath the body

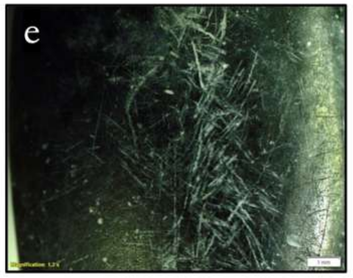








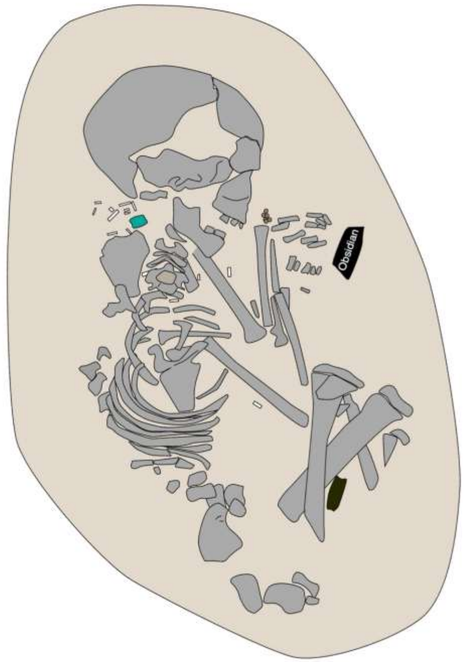




a-c: broken and re-used perforation edge (rounded).
b: used perforation edge with small fractures and deformation.
d: heavily damaged/fractured and eroded perforation.
e: multiple irregular and short striations.



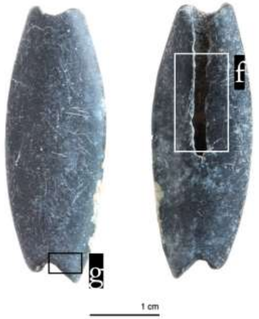
A child: SK11



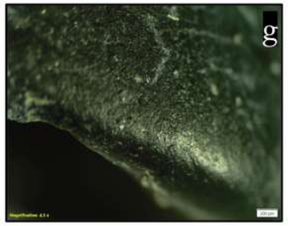
140 beads: Dentalium sp. (n=115), stone (n=25)



Near the leg

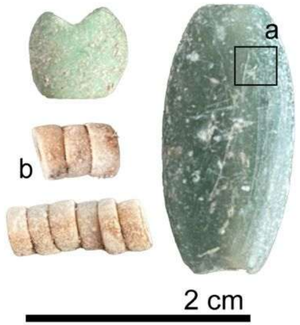






Dr. S. Yelözer









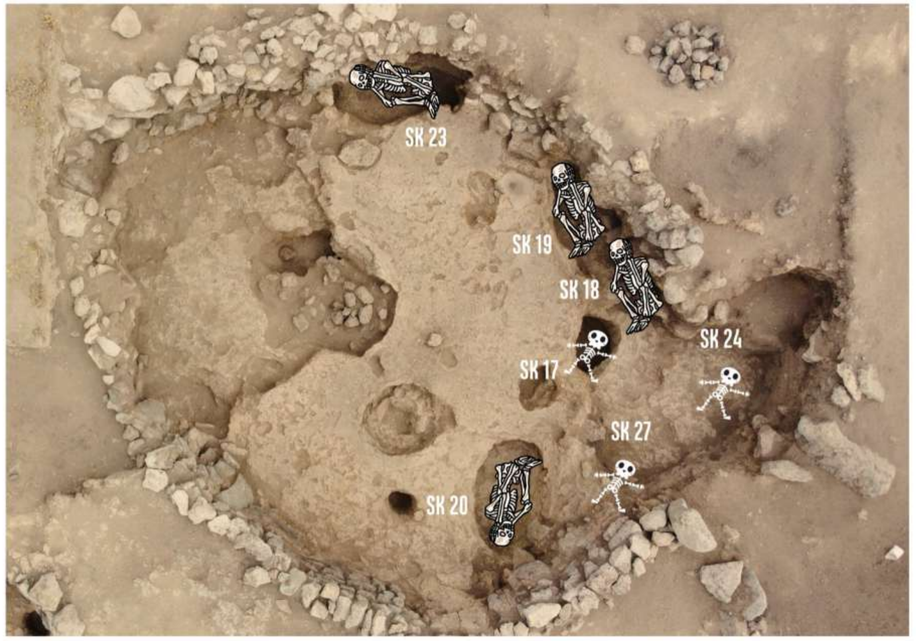
A child: SK47

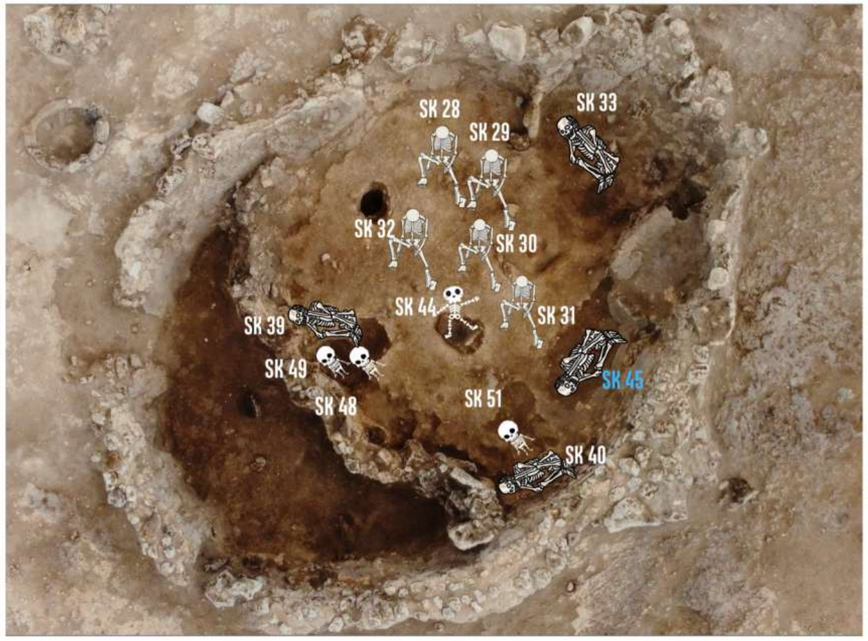




Disc beads, limestone, n=197
Greenstone, butterfly beads, n=2

These two children were siblings.


SK 23
SK 19
SK 18
SK 24
SK 17
SK 27
SK 20


SK 28
SK 29
SK 33
SK 32
SK 30
SK 44
SK 31
SK 39
SK 49
SK 48
SK 45
SK 51
SK 40


SK 41
SK 21
SK 22
SK 50


SK 35
SK 43
SK 34
SK 46


SK 4
SK 5
SK 3
SK 2
SK 42
SK 1





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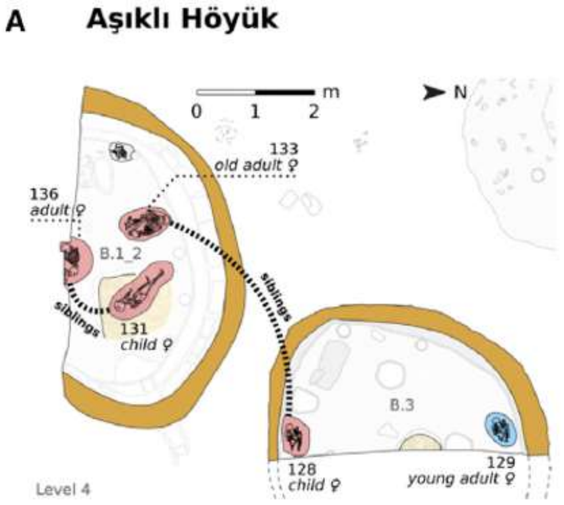
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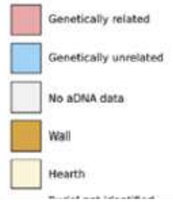
Journal of Archaeological Science

journal homepage: www.elsevier.com/locate/jas

The impact of the transition from broad-spectrum hunting to sheep herding on human meat consumption: Multi-isotopic analyses of human bone collagen at Aşıklı Höyük, Turkey

Yu Itahashi [a,b,*], Mary C. Stiner [c], Omur Dilek Erdal [d], Güneş Duru [e], Yilmaz Selim Erdal [d], Yutaka Miyake [a], Demet Güral [f], Minoru Yoneda [b], Mihriban Özbaşaran [g]





Report

Current Biology

Variable kinship patterns in Neolithic Anatolia revealed by ancient genomes

Highlights

- Genetic kinship estimated from co-buried individuals' genomes in Neolithic Anatolia
- Close relatives are common among co-burials in Aşıklı and Boncuklu
- Many unrelated infants found buried in the same building in Çatalhöyük and Barcın
- Neolithic societies in Southwest Asia may have held diverse concepts of kinship

Authors

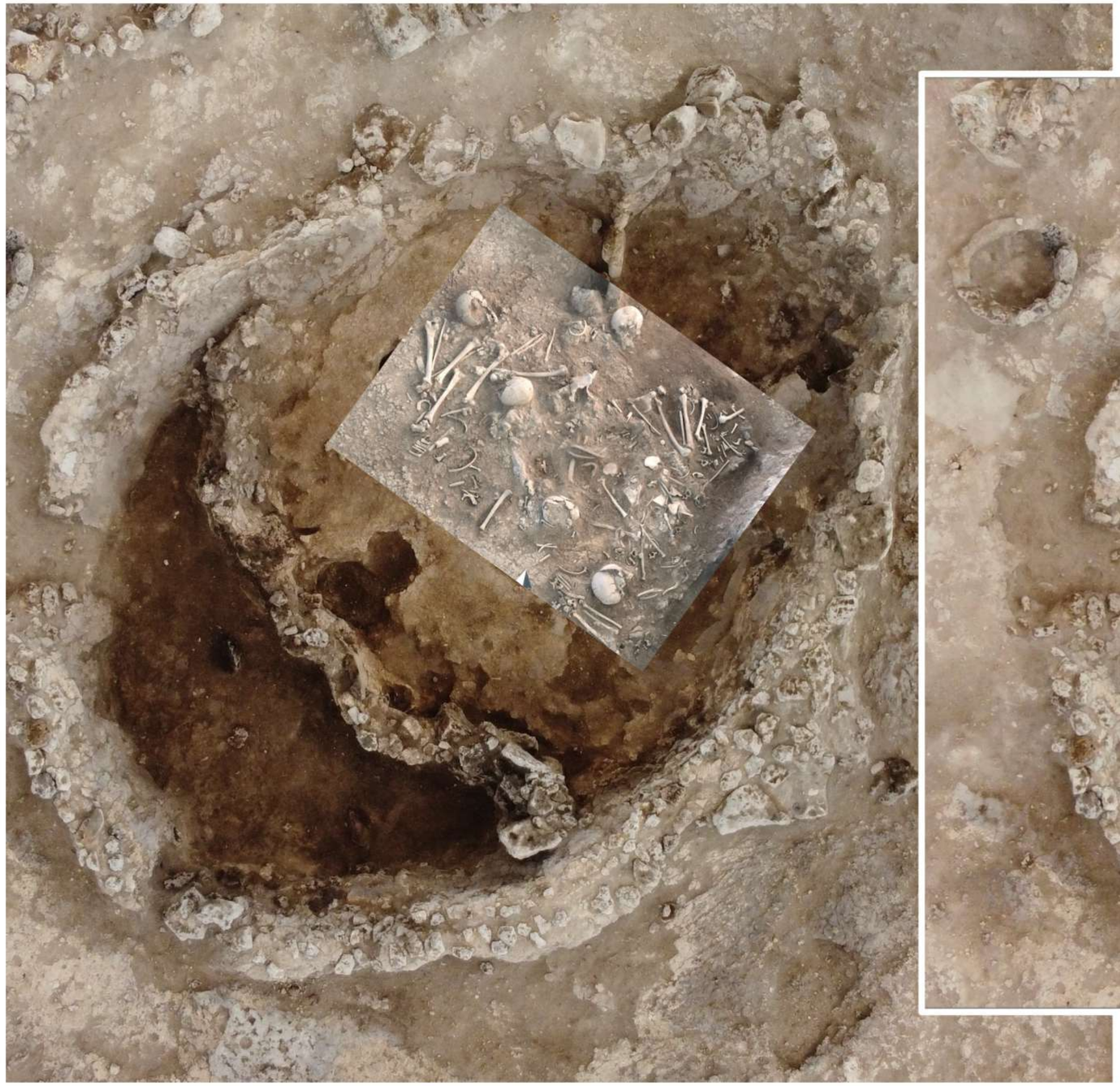
Reyhan Yaka, Igor Mapelli, Damla Kaptan, ..., Anders Götherström, Füsun Özer, Mehmet Somel

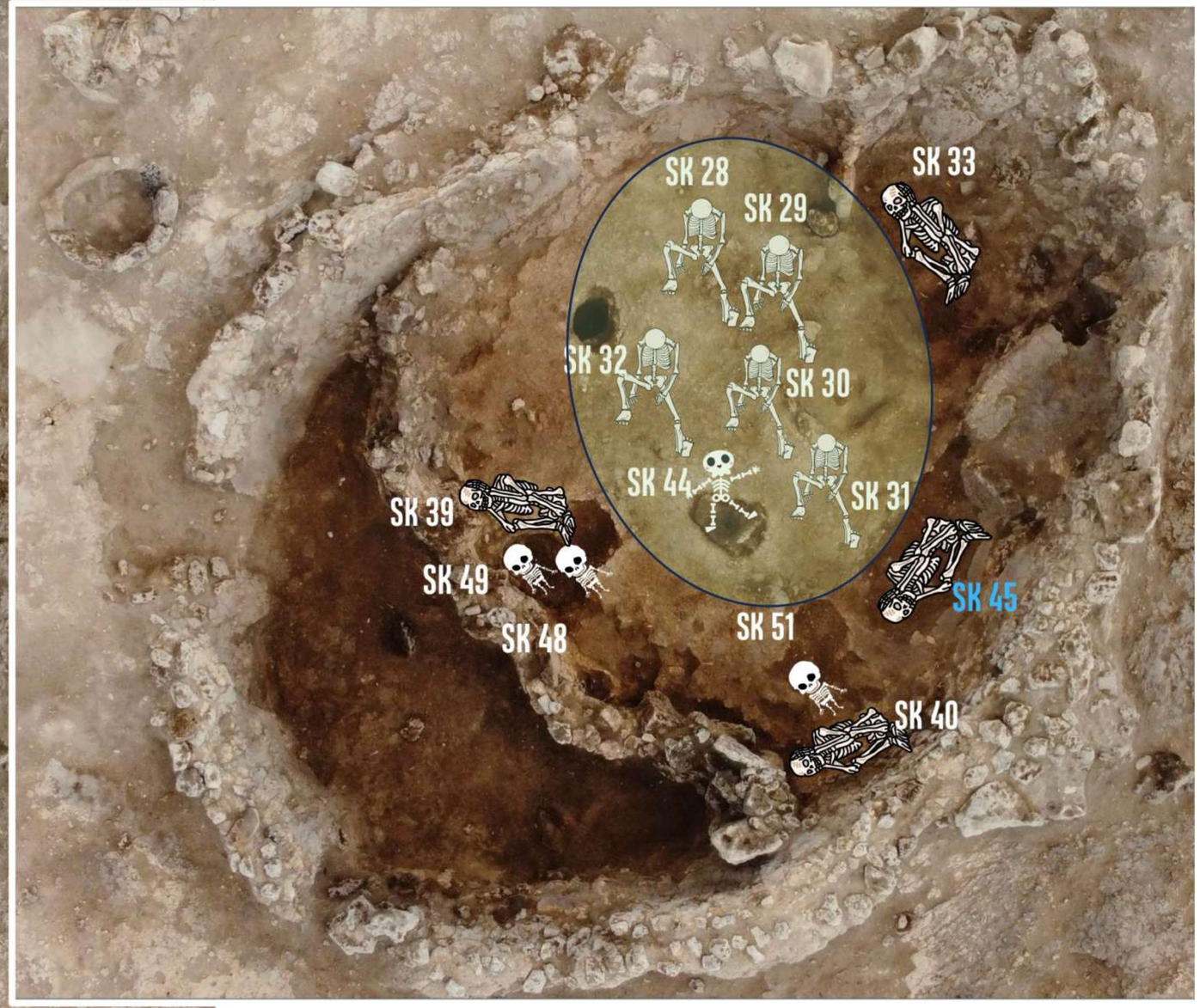
Correspondence

anders.gotherstrom@arklab.su.se (A.G.), fusunozer@hacettepe.edu.tr (F.Ö.), msomel@metu.edu.tr (M.S.), yakaryhn@gmail.com (R.Y.)

In brief

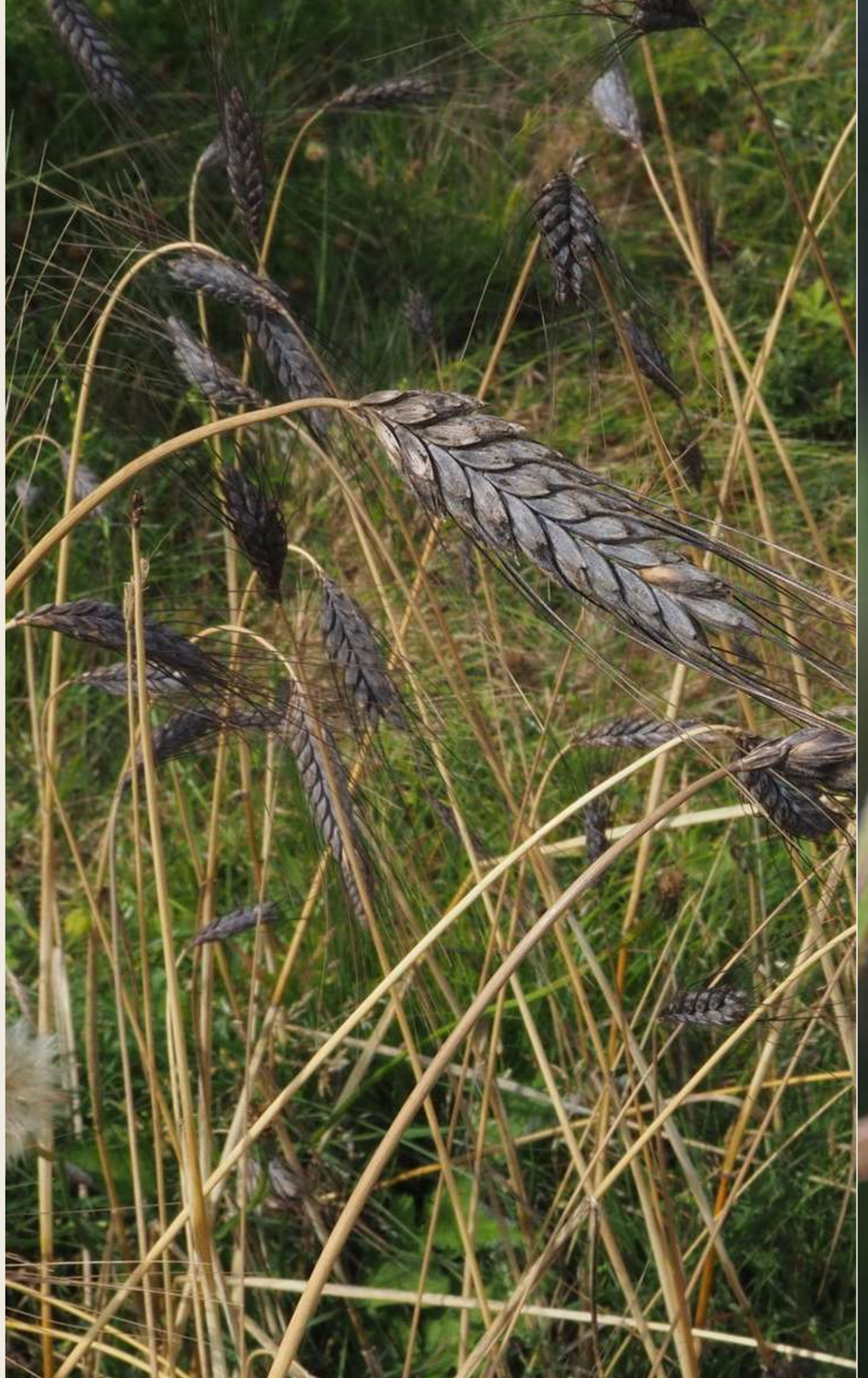
These results indicate that individuals in the same building had very similar diets. Specifically, SK_2, SK_3 and SK_4 excavated from Building AB have nearly identical isotopic compositions (S1), while SK_1 and SK_34 excavated from the neighboring building of AB have very different values.




SK 28
SK 29
SK 33
SK 32
SK 30
SK 44
SK 31
SK 39
SK 49
SK 48
SK 51
SK 45
SK 40




© Ori Fragman-Sapir

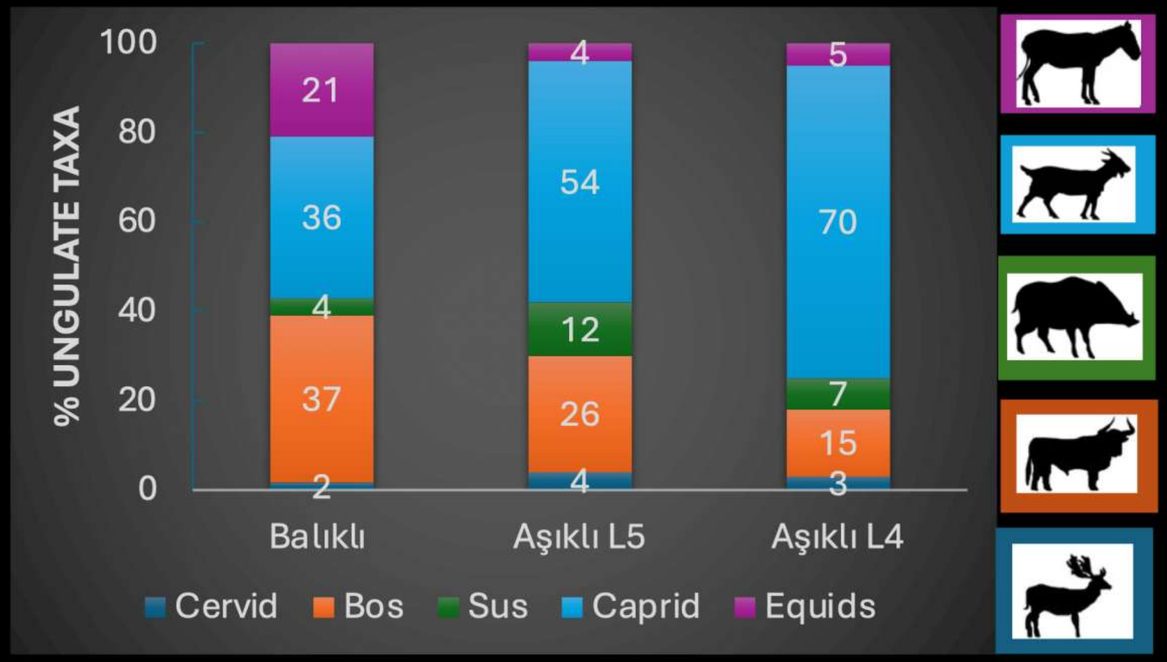




Balıklı Fauna

The residents of Balikli were primarily hunters of both large (53%) and small game (47%) animals.

Large Game (Ungulate) Abundance:



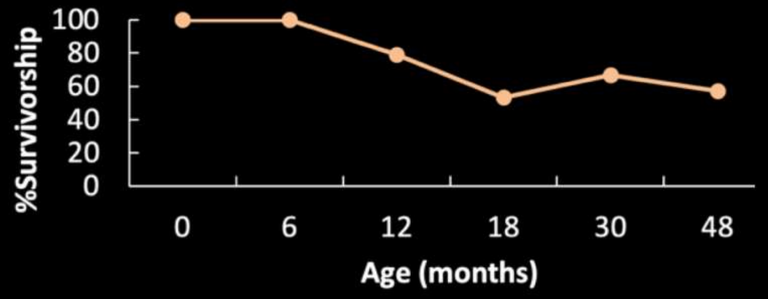


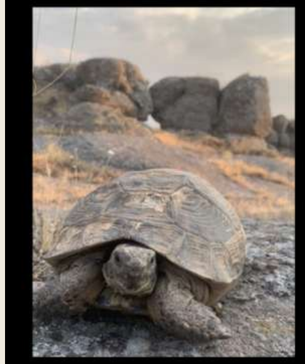


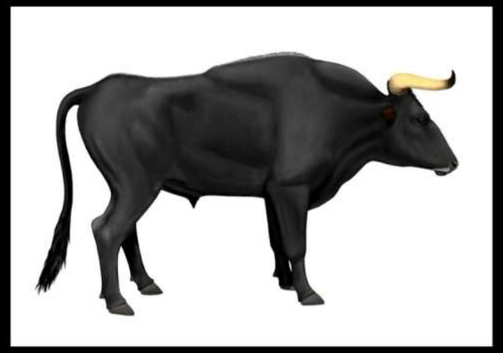


With some sheep/goat management?



















Category	Aşıklı	Balıklı
Chronology	8400-7300 BCE	8300-7950 BCE
Settlement Type	Long-term, continuous settlement	Possibly short-term or seasonal occupation
Architecture	Mudbrick houses, evolving from round to quadrangular structures	Semi-subterranean pit houses with oval layouts
Building Materials	Sun-dried mudbrick, plastered walls and floors	Basalt stones and marl mortar, plastered interiors
Spatial Organization	Dense, interconnected buildings with narrow alleys	More uniform, standardized arrangement, possibly reflecting seasonal occupation
Entry to Houses	Roof entry, no doors	Door entry, at the east edge
Subsistence Strategy	Agriculture and caprine management from early phases	Predominantly hunting, less evidence about caprine domestication
Plant Domestication	Early wheat domestication, evidence of mixed wild and domesticated grains	Few domesticated plants, mostly wild cereals and pulses
Animal Domestication	Strong focus on caprine management, increasing over time	Limited or no strong evidence for caprine management
Hunting Practices	Hunting decreased over time as domestication took precedence	Hunting of large wild game (wild cattle, wild ass) was primary strategy
Burial Practices	Few burials, only women and children, beneath floors	Numerous burials, including infants, adults of all sexes
Grave Goods	Absent	More frequent in child burials, including exotic beads and obsidian
Interaction & Exchange	Limited external exchange in early phases, increased over time	Evidence of contact with distant regions, including Upper and Taurus Middle Euphr
Obsidian Procurement	High percentage of obsidian tools, extensive use of Göllüdağ sources	High percentage of obsidian tools, extensive use of Göllüdağ sources
Social Structure	Strong social cohesion, generational continuity	More variable, indications of external influences
Cultural Continuity	Architectural footprints repeated over generations, suggesting continuity	Frequent rebuilding of structures, but social dynamics less clear
Community Size	Growing, with increasing population density over time	Smaller, possibly fluctuating due to seasonal movement




Balıklı
Aşıklı
OBSIDIAN SOURCES
Kaletepe
Boncuklu
Çatalhöyük
Pınarbaşı
Can Hasan
Direkli
Eşek Deresi Mağarası
Epipaleolithic
Aceramic Neolithic



Thank you



