

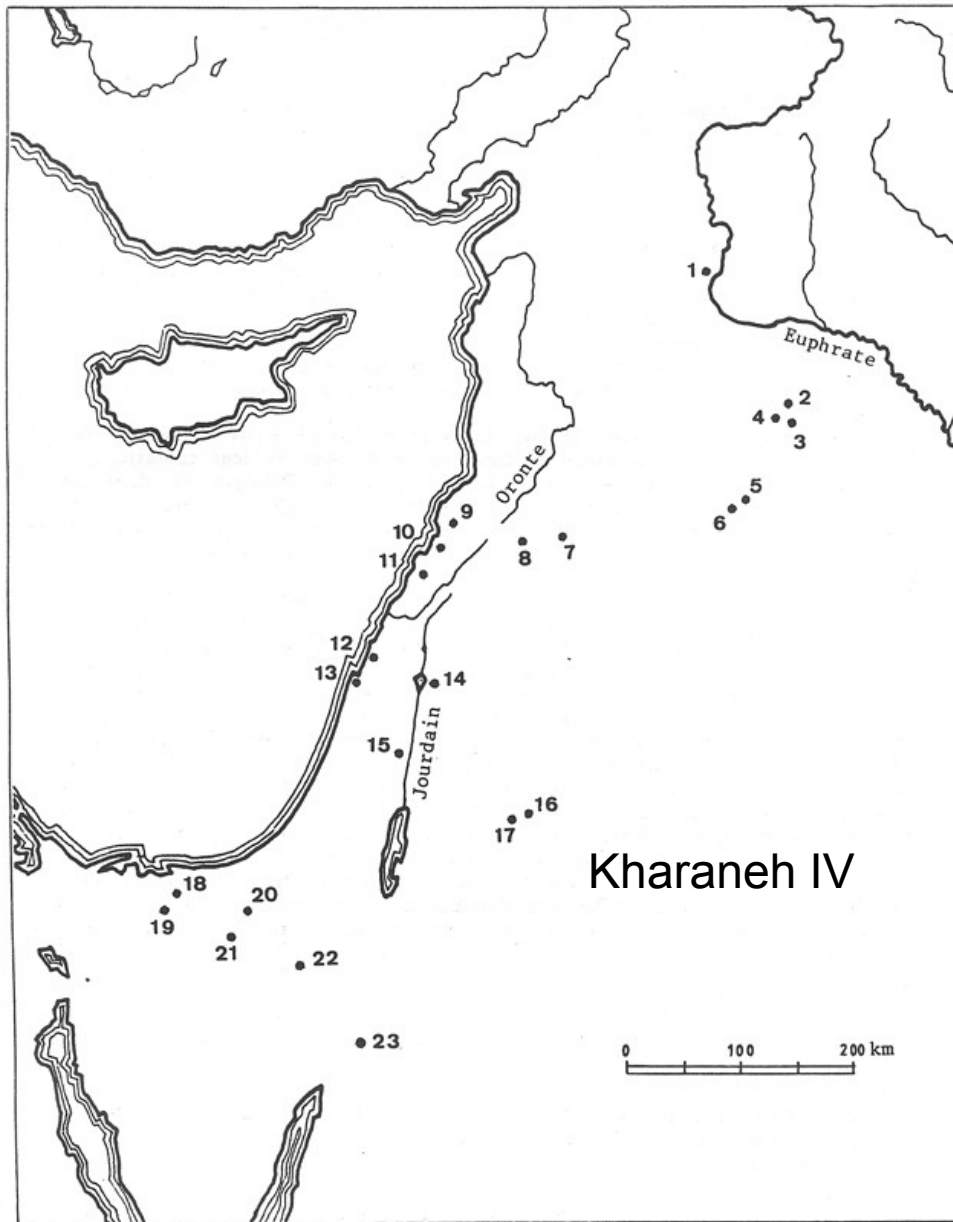
Epipaleolithic Foragers in Azraq (EFAP)

- Cambridge University Project
- <http://kharaneh.blogspot.com> for illustrated annual reports on Kharaneh excavations
- Focus on human interactions with changing environments – niche adaptations
- Sees long trajectory of changes that culminated in the Late Epipaleolithic Natufian

Kharaneh IV

- First excavated 1981 and 1985 by Mujahed Muheisen who recorded four Phases A-D, Early and Middle Epipaleolithic
- Covers 21,000 m², one of the largest Epipaleolithic sites known
- Current excavations led by Lisa Maher
- Site has hut structures, worked bone, burials, lithic workshops, and cooking events
- Area A is Middle Epipaleolithic (Geometric Kebaran) (16.5-14.5 KA cal BP)
- Area B is Early Epipaleolithic (Kebaran) (23-16.5 ka cal BP)

Kebaran sites



Kharaneh IV

Figure 60 : Carte des gisements kébariens géométriques cités : 1, Nahr el Homr; 2, Nadaouiye 2; 3, El Kowm 1; 4, Arida; 5, Douara; 6, site 50; 7, Jayroud; 8, Jabrud, 9, Jebel Maghara; 10, abri Bergy; 11, Sables de Beyrouth; 12, Hayonim; 13, Neve David; 14, Haon; 15, Fazael IIIc; 16, Jilat; 17, Kharaneh; 18, Lagama Nord VIII; 19, Mushabi; 20, N. Seker 32; 21, Shunera III; 22, N. Zin; 23, Ras en Naqb (J407).

Kharaneh



Lisa Maher



Kharaneh IV in the centre, looking northwest.

Kharaneh IV, a low mound on the steppe

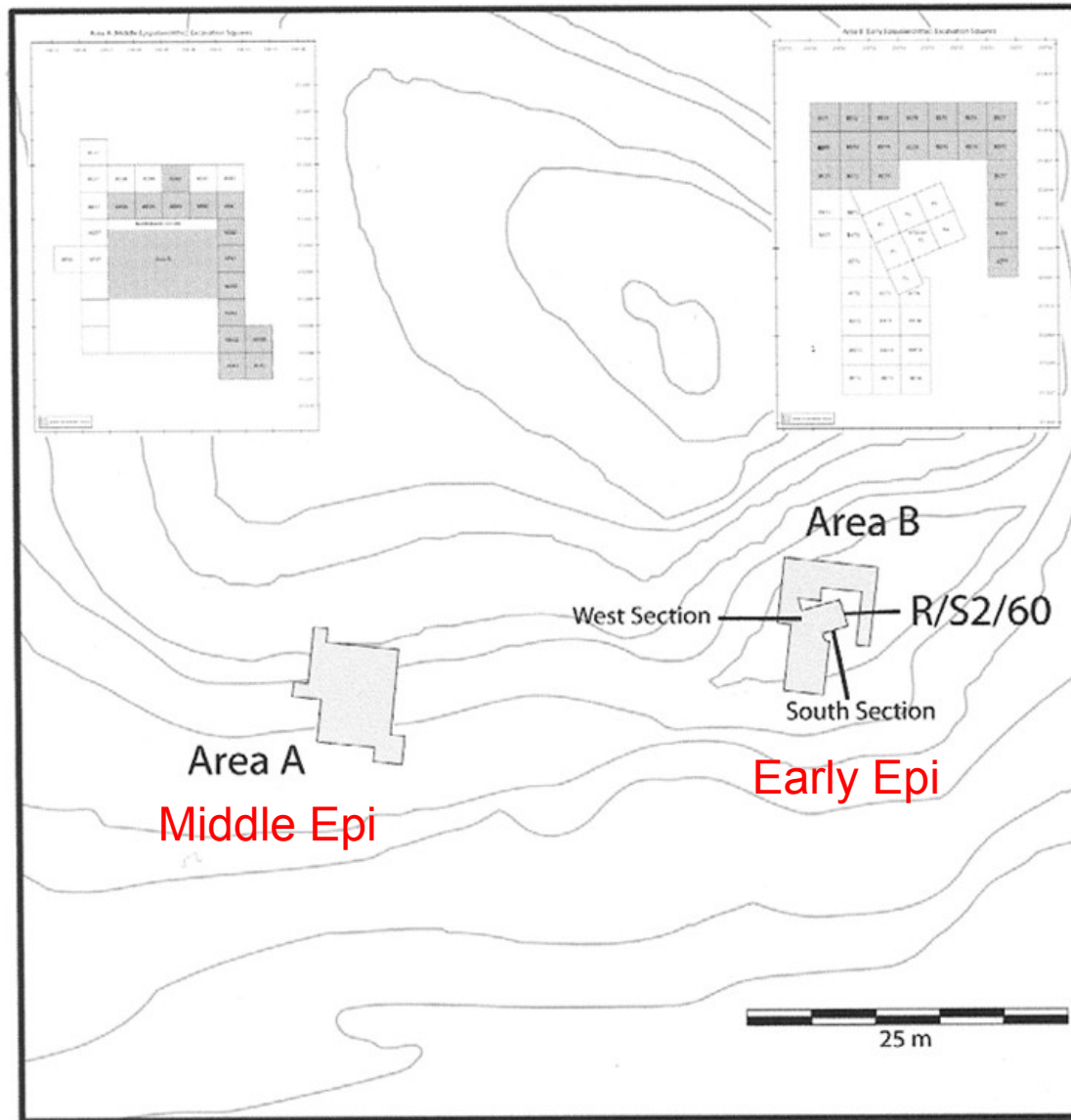


Figure 2. Locations of Areas A and B on the mound of Kharaneh IV, along with close-ups of the excavations squares within each area (insets).

Kharaneh IV



Kharaneh IV in the centre, looking northwest.



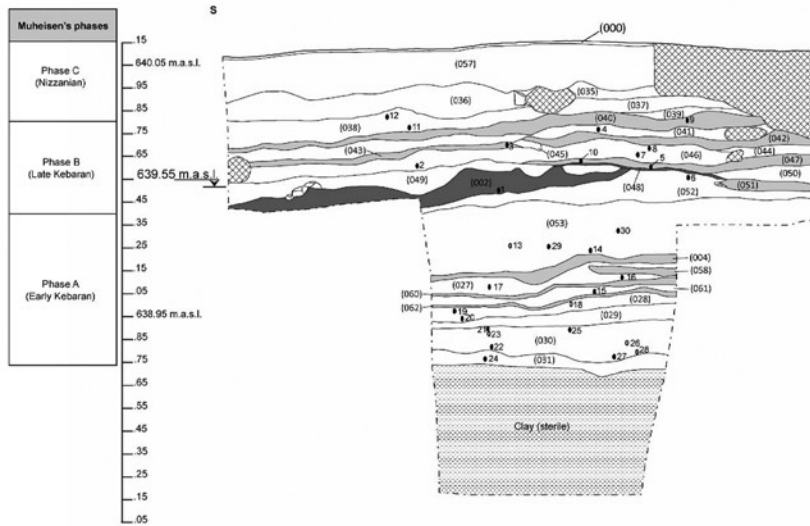
Figure 3

Lithics on surface of Kharaneh IV



Figure 2

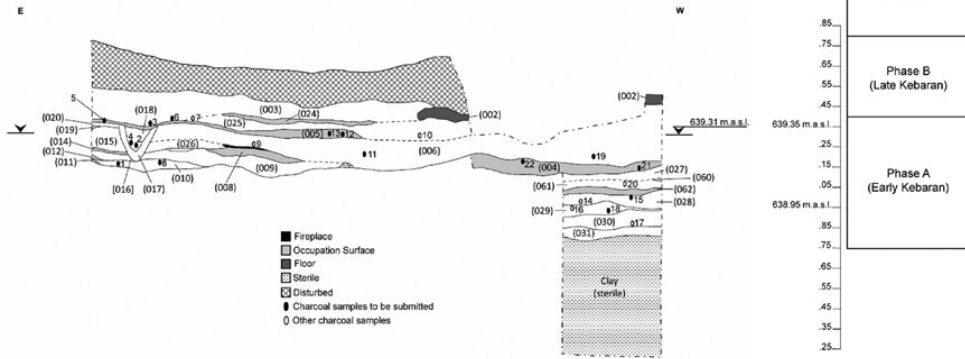
Epipalaeolithic Foragers in Azraq Project
 Kharaneh IV 2008
 Area B (R/S2/60)
 West Section



West section Kharaneh Area B
 (Early Epipaleolithic)



West section in Early EP Area, looking west



South section of Middle Epipaleolithic deposit In Area A, Kharaneh IV



Eastern part of south section in Early EP Area, looking south



Middle Epipaleolithic Geometric Kebaran lithics
from Kharaneh IV



Fig. 12

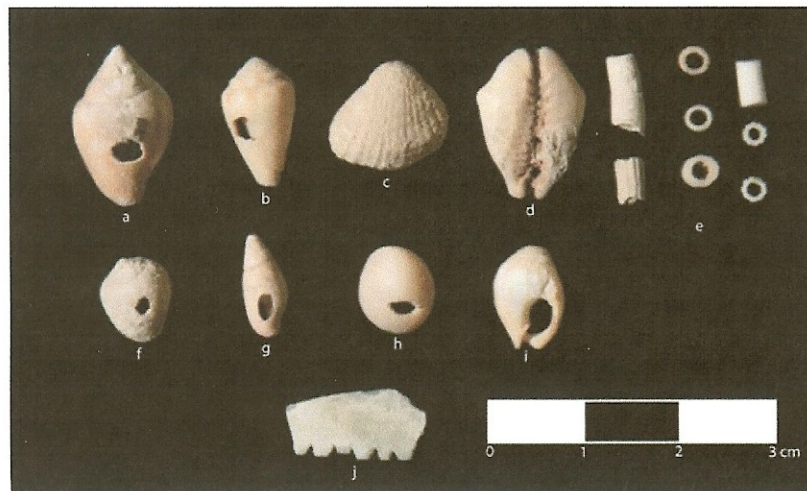
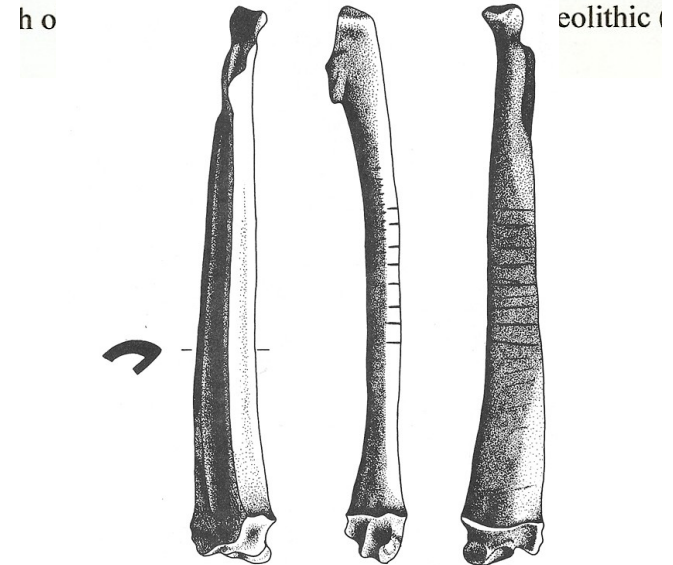


Figure 6. Modified marine shell from the Middle Epipalaeolithic (Area A) levels of Kharaneh IV, including a) *Columbella rustica*, b) *Conus mediterraneus*, c) *Cerastoderma glaucum*, d) *Cypraea erosa nebrites*, e) *Antalis sp.*, f) *Euplica turturina*, g) *Mitrella scripta*, h) *Nerita sanguinolenta*, i) *Nassarius gibbosulus*, j) *Pinctada radiata*.



Kharaneh IV. Incised bone radius from Phase D. Fayeze Tarawneh.

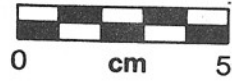


Fig. 19

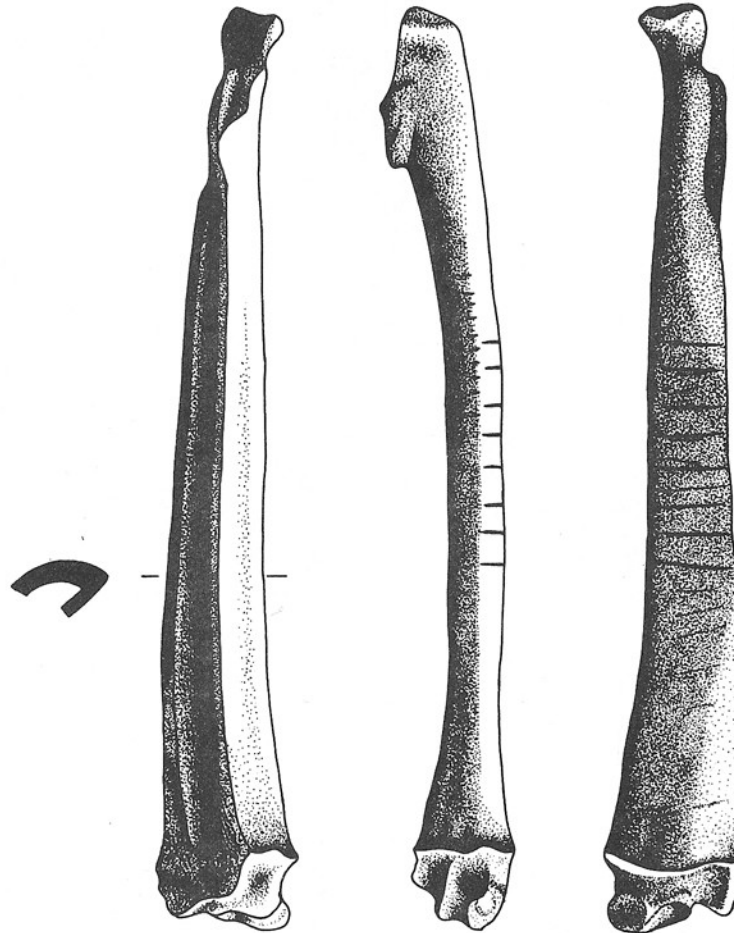


Plate 2 Burial found in Phase B (Sq. R2/60) of Kharaneh IV.

Burials in Middle Epipaleolithic Kharaneh IV



Incised human bones



Kharaneh IV. Incised bone radius from Phase D.
Fayez Tarawneh.

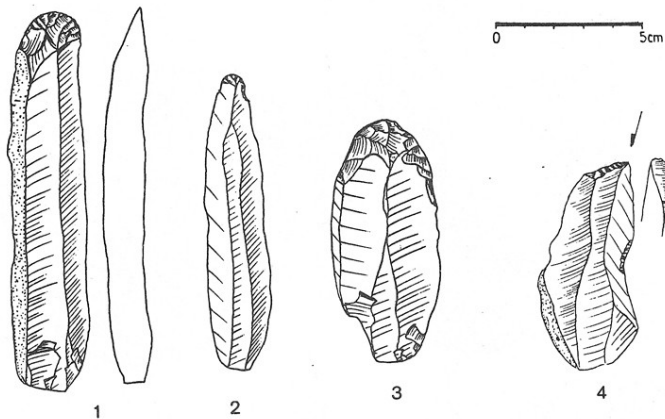


Figure 4 Kharaneh IV. Flint tools from Phase A.

1-3 end scrapers; 4-6 burins; 7 truncated blade; 8 pointed blade with unilateral steep/abrupt retouch; 9-10, 14 microgravettes; 11-13 micropoints with fine retouch; 15-16, 18 pointed bladelets with basal truncations; 17 micro-point.

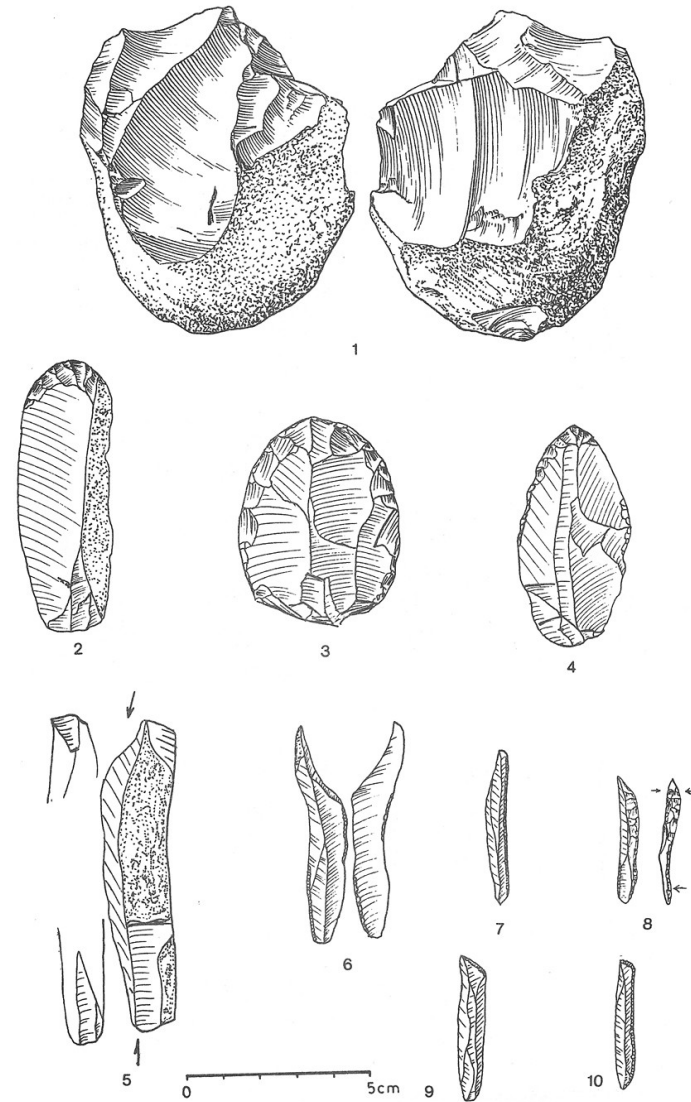


Figure 5 Kharaneh IV. Flint tools from Phase B.

1 flake pebble core; 2-4 end scrapers; 5 burin; 6 blade with alternate retouch; 7 bladelet with fine lateral retouch; 8 bladelet with bipolar retouch; 9 truncated bladelet; 10 pointed bladelet.

Lithics, Phases A and B

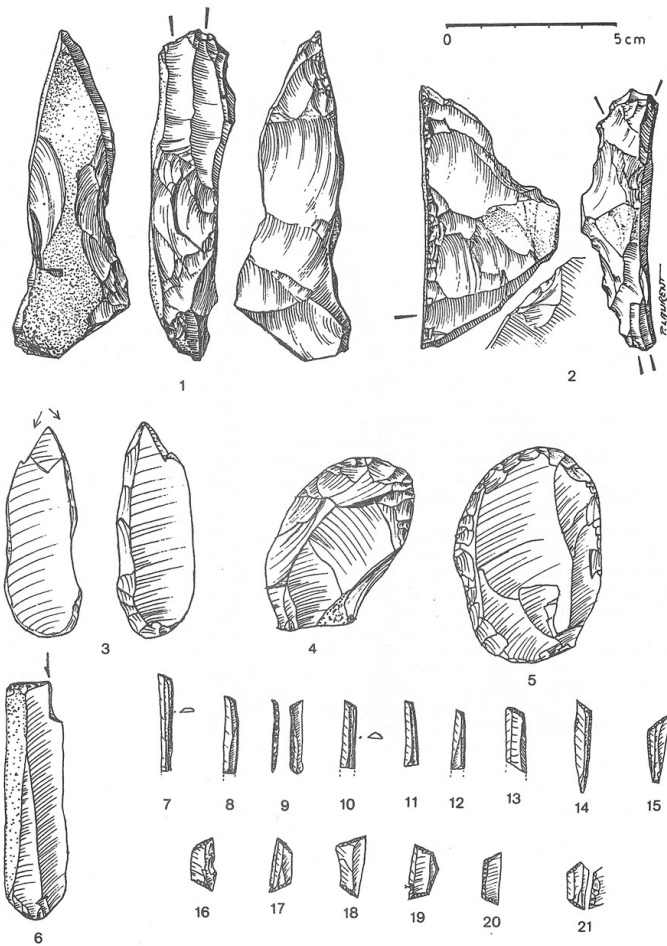


Figure 6 Kharaneh IV. Flint tools from Phases B and C.

1-2 Crested blade core; 3, 6 burin; 4-5 end scraper; 7-15 backed truncated bladelets; 16-21 trapezes.

Lithics, Phases B-C

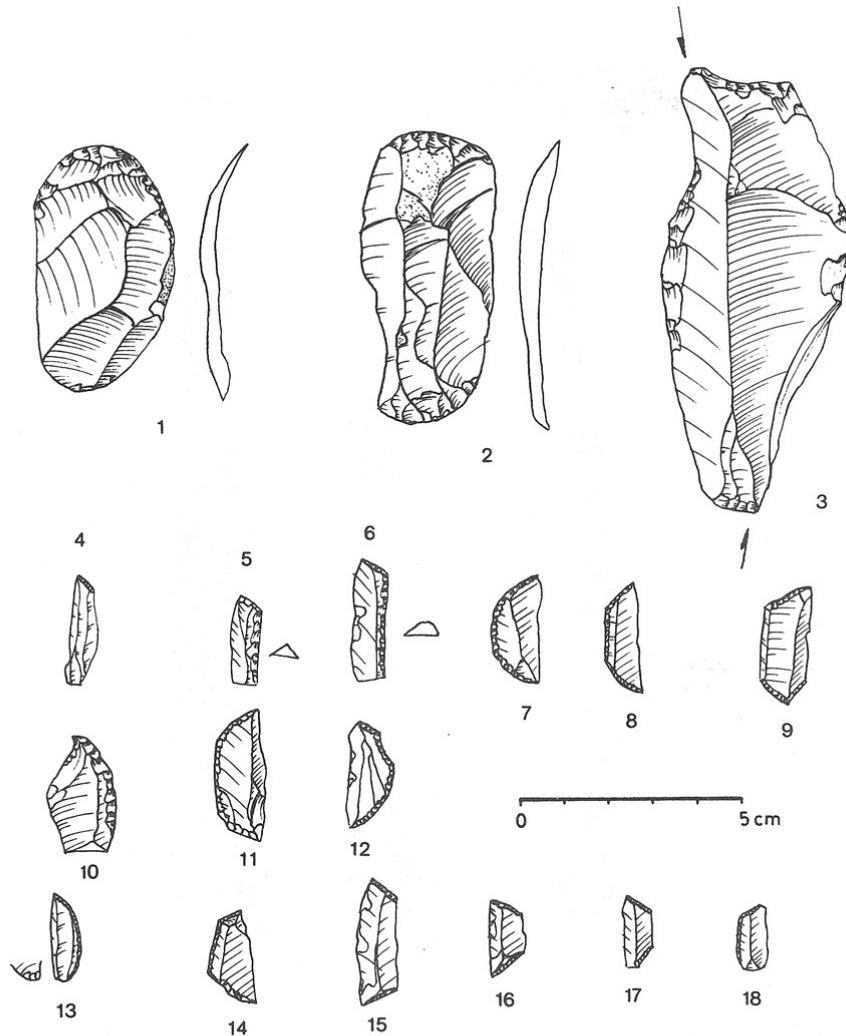


Figure 8 Kharaneh IV. Flint tools from Phase D.

1-2 end scrapers; 3 burin; 4 truncated bladelet; 5-6, 18 backed truncated bladelets; 7, 13 proto-lunates; 8-9, 11-12, 14-17 trapezes; 10 micro-awl.

Lithics, Phase D

Questions Raised

- Why was the site used for so long?
- Why did people choose this location?
- What was the local environment – water source, vegetation, fauna?
- How did the environment change?
- What kinds of occupations and activities were carried out at the site?
- Where were the resources consumed at the site?

Qasr Kharaneh IV
1 km from
Karaneh Tepe





Qusayr Amra, 8th century Umayyad bath and pleasure house



Typical shrub vegetation of the arid steppe



Azraq Fort where
T E Lawrence stayed

Qasr al-Azraq

“It was to be Ali’s first view of Azrak, and we hurried up the stony ridge in high excitement, talking of the wars and songs and passions of the early shepherd kings, with names like music, who had loved this place; and of the Roman legionaries who languished here as garrison in yet earlier times” T. E. Lawrence, *Seven Pillars of Wisdom*.

Inner courtyard of the Azraq fort





Heavy basalt door. “It went shut with a clang and crash that made tremble the west wall of the castle” T. E. Lawrence.

Azraq Oasis

- Azraq – the only permanent, natural wetland in the Jordanian Desert
- A low-lying basin fed by 10 seasonal wadis
- Playa lake, marsh and artesian springs
- Large modern population, irrigation agriculture, livestock, salt industry, etc
- Due to over exploitation, little remains of the natural oasis

لو كنت تسير هنا قبل ١٥ عاما لغمرتك المياه إلى
عنقك إلا أن الضخ الجائر لمياه الواحة أدى إلى انخفاض
مستوى المياه الجوفية إلى ١٢ مترا تحت سطح الأرض .

آثار هذا الجفاف تتضح من خلال الغبار الموجود في
المنطقة و من آثار الحريق الظاهرة على الأشجار
من حولك التي أدت إلى موت كثير من الأحياء البرية .

If you were walking here ten years
ago you would have been up to your
neck in water. Pumping from the
oasis has made the water level drop
12 metres below the ground.

This drying out is very apparent in the
dusty soil, the tall vegetation and the
signs of fire-damage on nearby trees.
Dry areas like this support little wildlife

If you were walking here
ten years ago you would
have been up to your neck
in water. Pumping has
made the water level drop
12 meters.

Azraq is essentially a
dead oasis, sustained
only by pumping water in

How the Azraq marsh
once looked

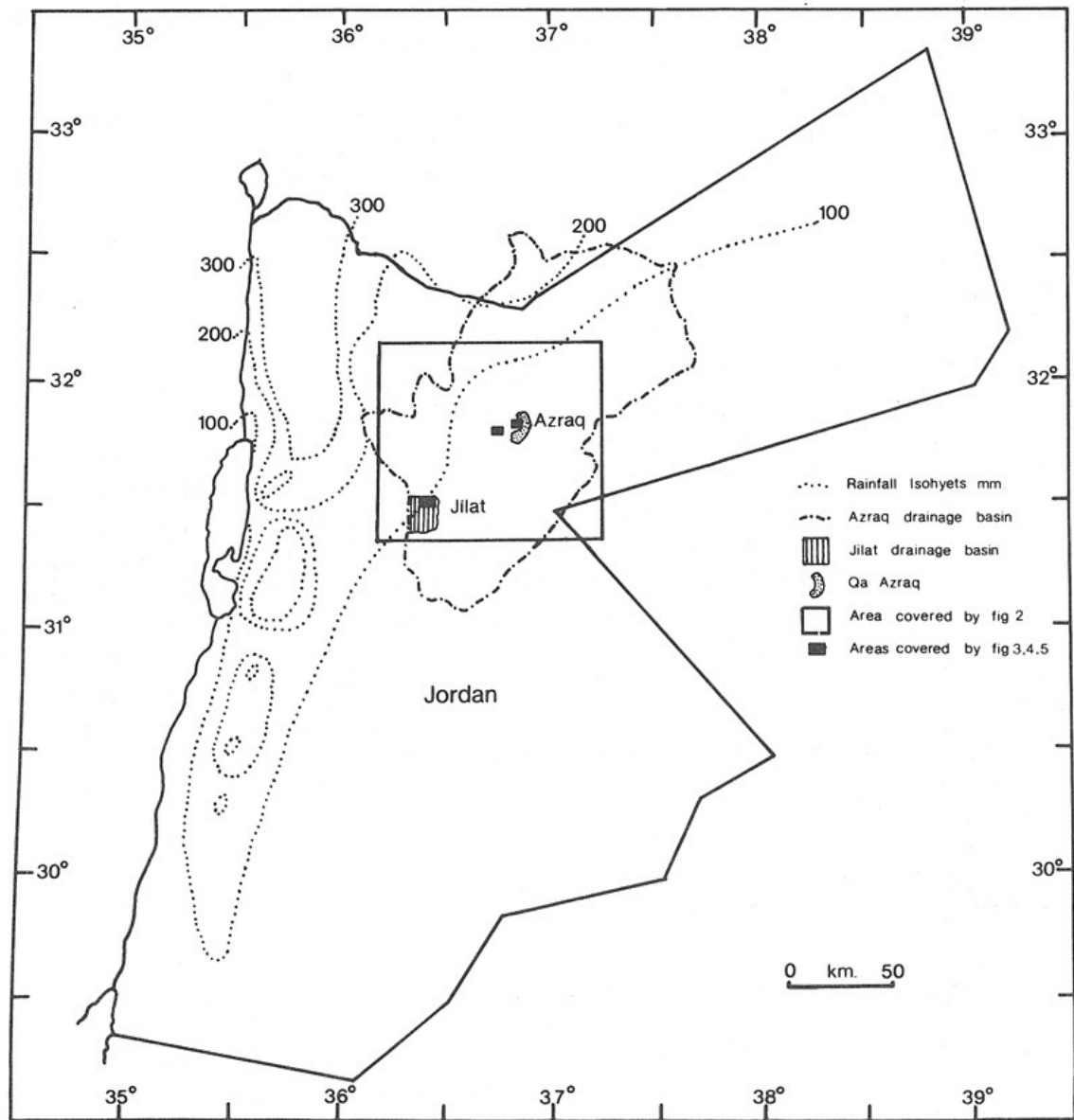




Azraq Oasis game tunnel through the reeds

Azraq Archaeology

- Andrew Garrard (UC London) is PI
- >100 prehistoric sites in and around Azraq
- Wadi Jilat one focus – it is a transition between desert and steppe, 55 km SW of Azraq
- Wadi is winter “oasis” and holds water into summer
- Jilat 6 is Kebaran; Azraq 18 is Natufian



Wadi Jilat and Azraq Oasis in Eastern Jordan

Figure 1 Rainfall map of Jordan (based on A.H.T. 1977), showing Azraq and Jilat drainage catchments and position of survey areas.



Epi-Paleolithic site
deposit embedded
in the marsh sediments

Sites along the Wadi Jilat

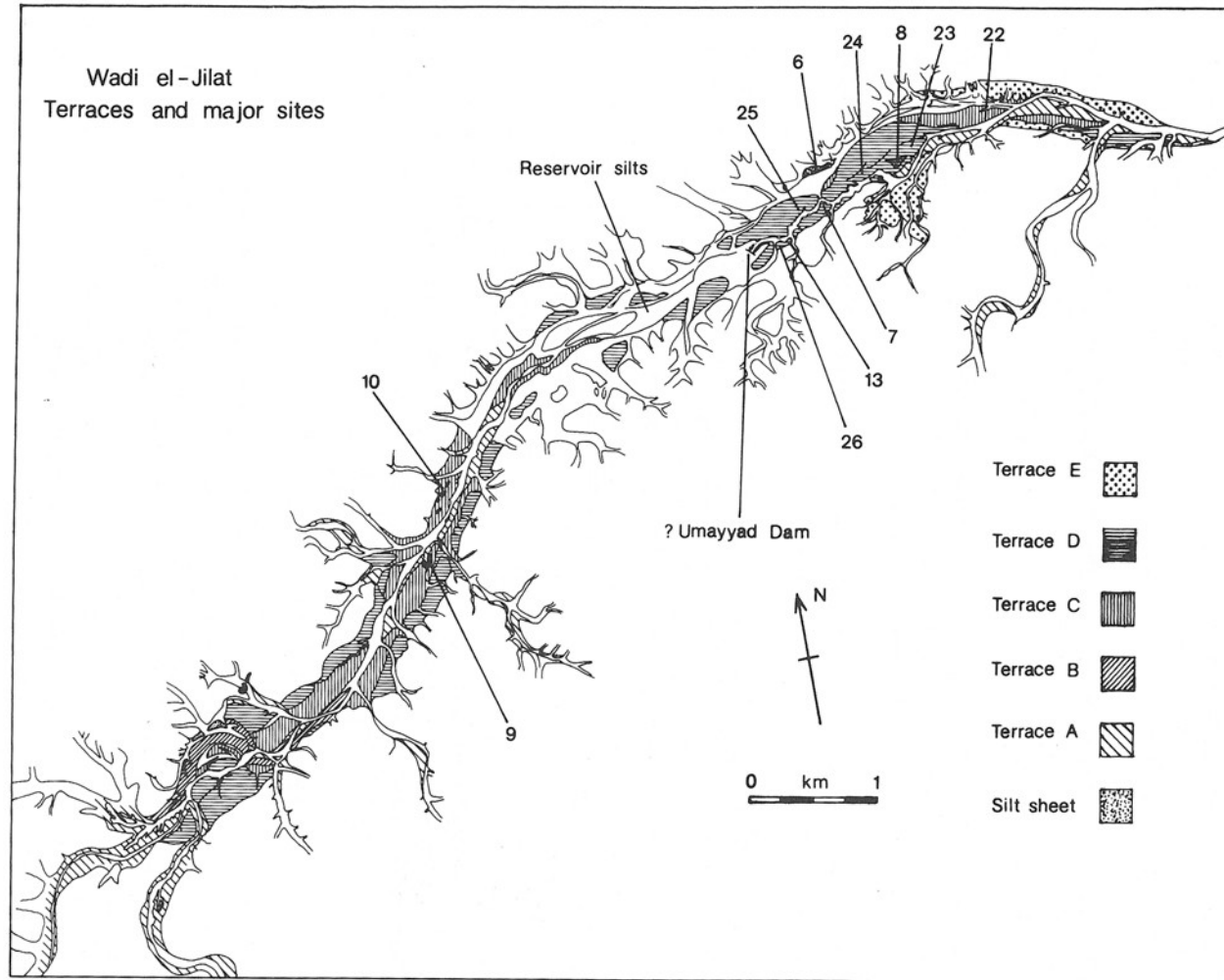


Figure 3 Map of fluvial terraces and major sites in Wadi el Jilat (modified from survey undertaken by C. Hunt). The relative age of terrace E is uncertain at present, but amongst the others, terrace A is the youngest and terrace D the oldest.

Jilat 6

- 18,000 m² of flint artifacts on surface
- Seasonal aggregation center or base camp
- Hunting and gathering site
- Traces of ochre-pigmented floors – a possible structure

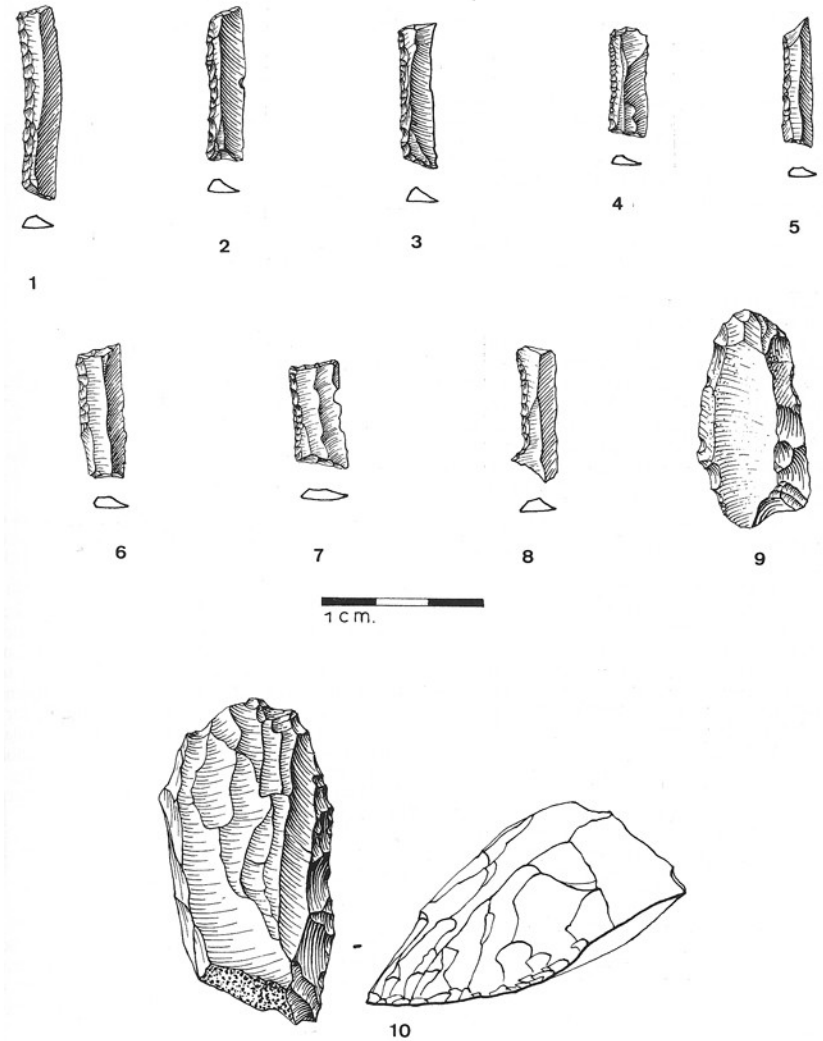
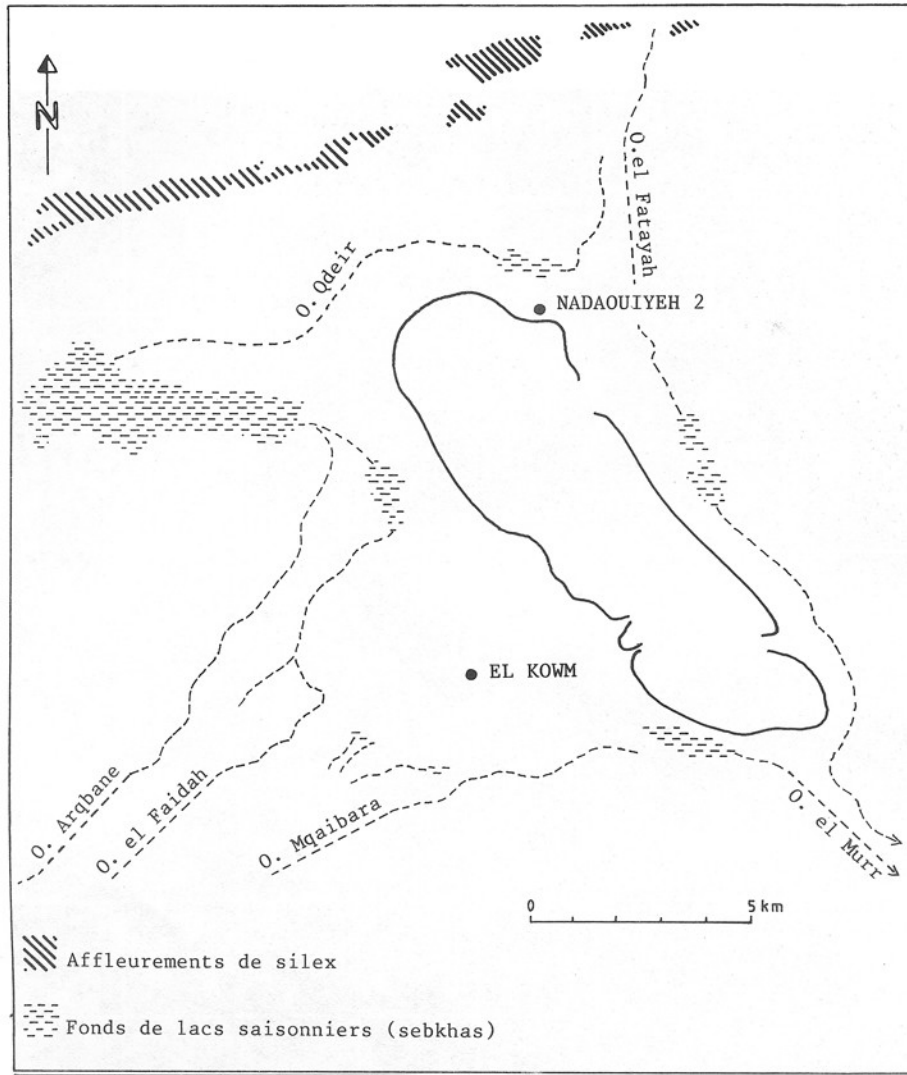


FIG. 3. - Nadaouiyeh 2. Industrie lithique.

Nadouiyeh 2 in the El Kowm Oasis