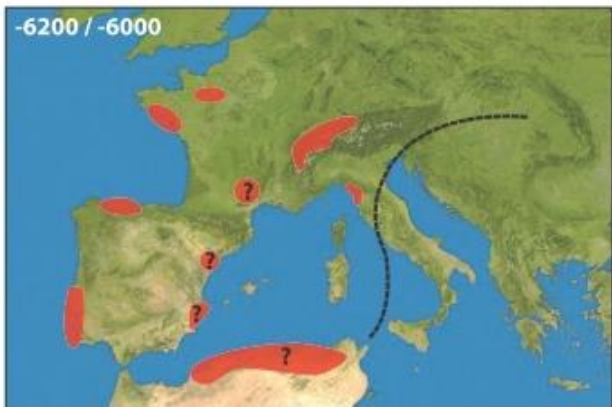
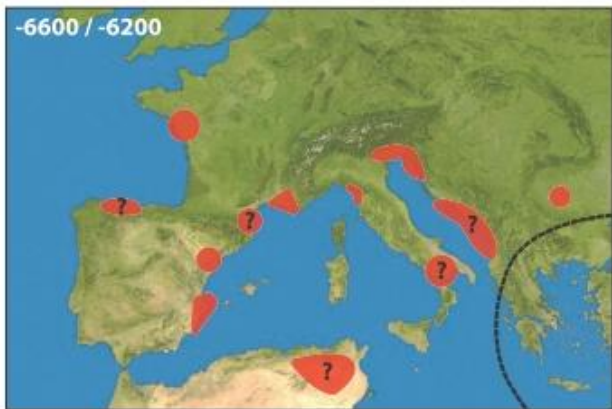
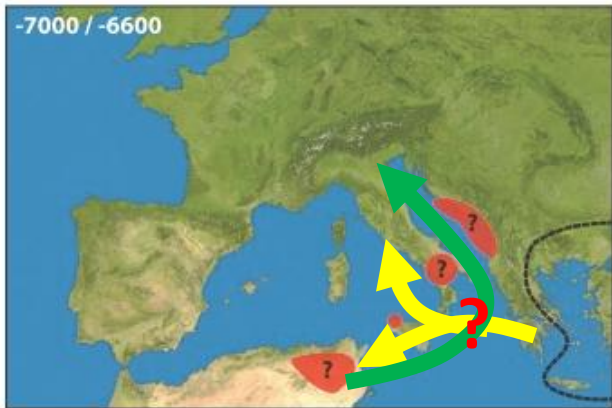


Use-wear analysis of the Capsian lithic industry of Kef Zoura D (Algeria): preliminary results.

Analyse fonctionnelle de l'industrie lithique capsienne de Kef Zoura D (Algérie) : résultats préliminaires.

Bernard Gassin, Juan F. Gibaja, Mary Jackes, David Lubell.





Diffusion of lithic industries with large regular blades, trapezes and notched blades.

Maps from Perrin 2009 and 2012



industries with large regular blades, trapezes and notched blades



Limit of Neolithic expansion

Dates cal BC



Hypothesis Perrin et alii 2009



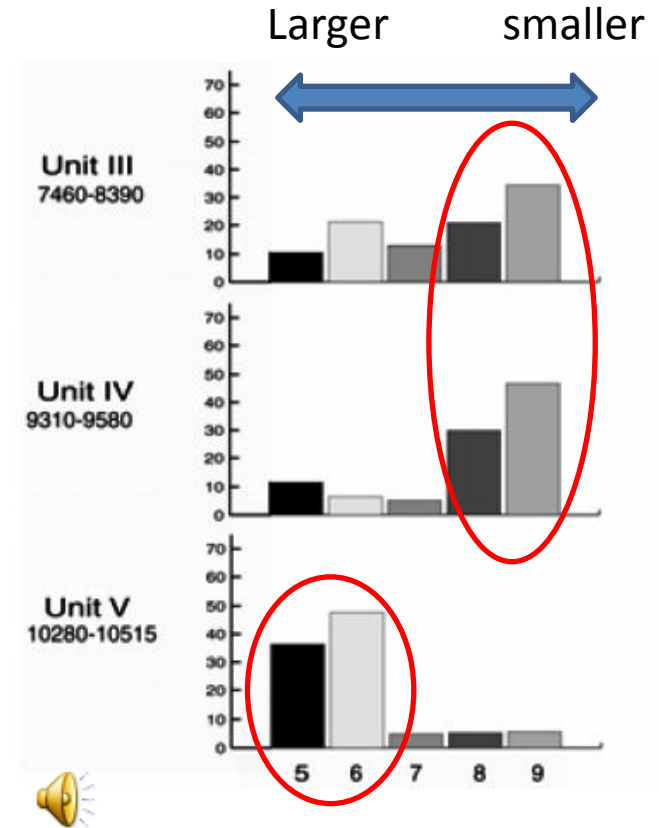
Hypothesis Belhouchet, Mulazzani and Pelegrin 2014

Research Program
MeNeMoia :
From Mesolithic to Neolithic in Western Mediterranean : the African impact
Dir. T. Perrin



From Capsien typique to Capsien supérieur : are changes in the tool kit responses to changes in environmental conditions ?

	Lithic industries	fauna	climate
Capsien supérieur	Bladelets : pressure Backed blades and bladelets, triangles and trapezes Notched blades	Smaller game More lagomorphs	drier
8200 calBP event			
Capsien typique	Blades : direct percussion Backed blades and bladelets, triangles, segments, burins	Large game hartebeest, zebra and aurochs	moister



Kef Zoura D fauna
Jackes and Lubell 2008

5 *Bos primigenius* & *Equus mauritanicus* 6 *Alcelaphus buselaphus* / medium bovid
7 *Ammotragus lervia* 8 *Gazella* / small bovid 9 *Lepus* & *Oryctolagus*

Télidjène Basin, Algeria



Kef Zoura D

Relilāi

Aïn Misteheyia

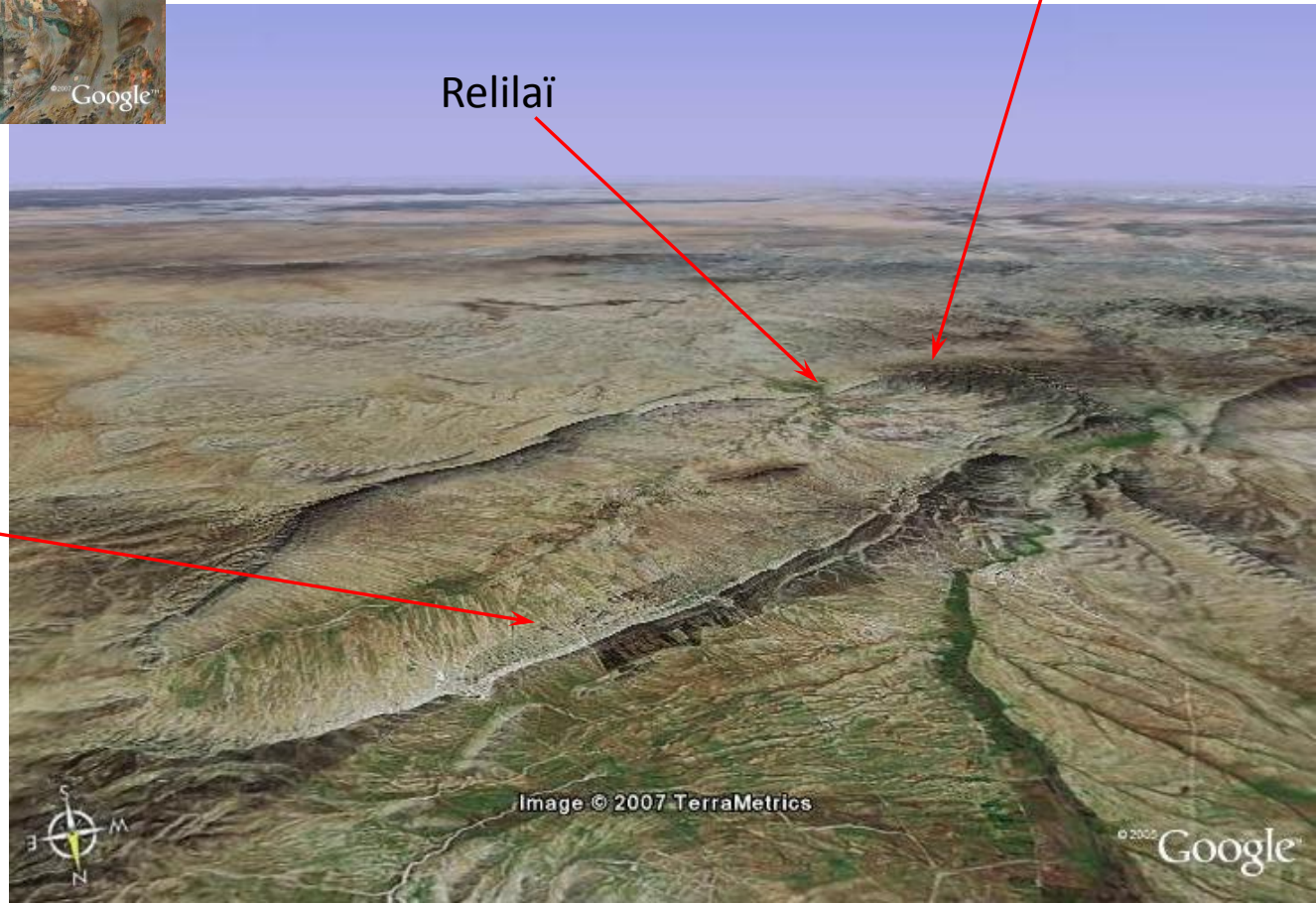


Image © 2007 TerraMetrics

© 2002 Google

HOLOCENE PREHISTORY IN THE TÉLIDJÈNE BASIN, EASTERN ALGERIA

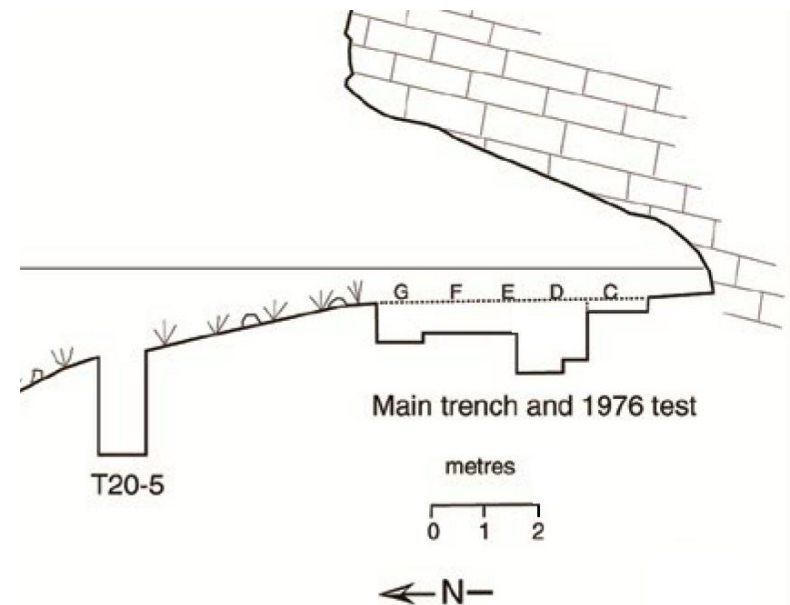
CAPSIAN OCCUPATIONS AT
KEF ZOURA D AND AÏN MISTEHEYIA

Assembled and edited by

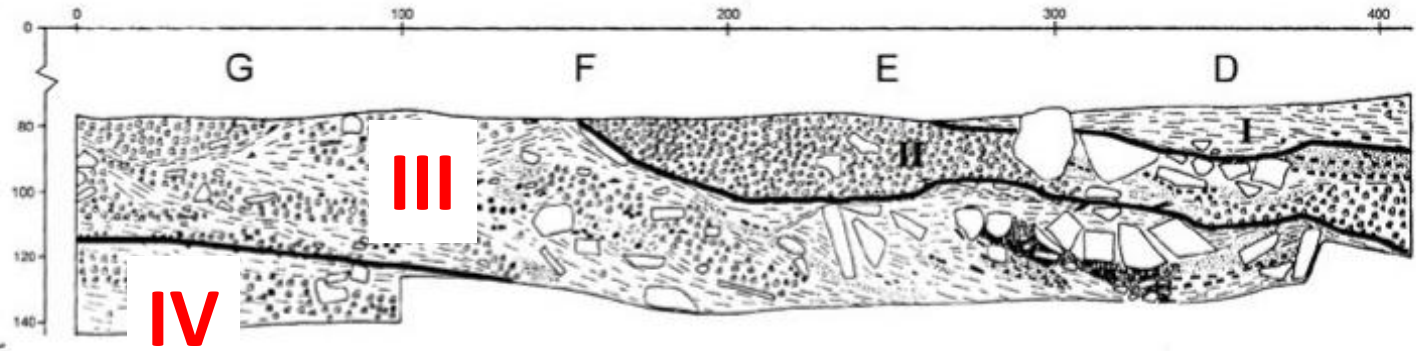
David Lubell



Excavations D. Lubell and
M. Jackes – 1972-1978



Kef Zoura D stratigraphy



T 20-5

5 metres



Land snails

Main trench, east face

Units I-III : Capsien supérieur

Unit IV : Capsien typique ?

Unit V : Capsien Typique

Use-wear analysis (B. Gassin, J. F. Gibaja)

Units	Culture	tools	Number (sample)
III	Capsien supérieur	Backed bladelets, geometrics, notched blade(let)s, burins, ...	214
IV-V	Capsien typique	Backed bladelets, geometrics, notched blade(let)s, burins, scrapers, ...	140

Total lithic industry : 55 000 artefacts

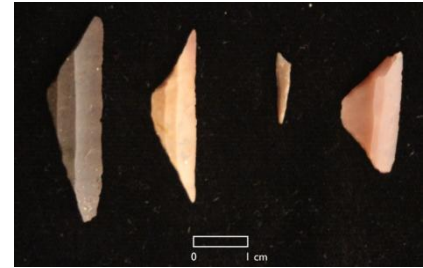


Sample	methods
Geometrics, backed blades and bladelets N = 210	Mainly low power
Other tools N = 144	Low and high power



variability

Backed blades and geometrics



variability

Notched blades

increase



burins

decrease



Capsien typique

time

Capsien supérieur



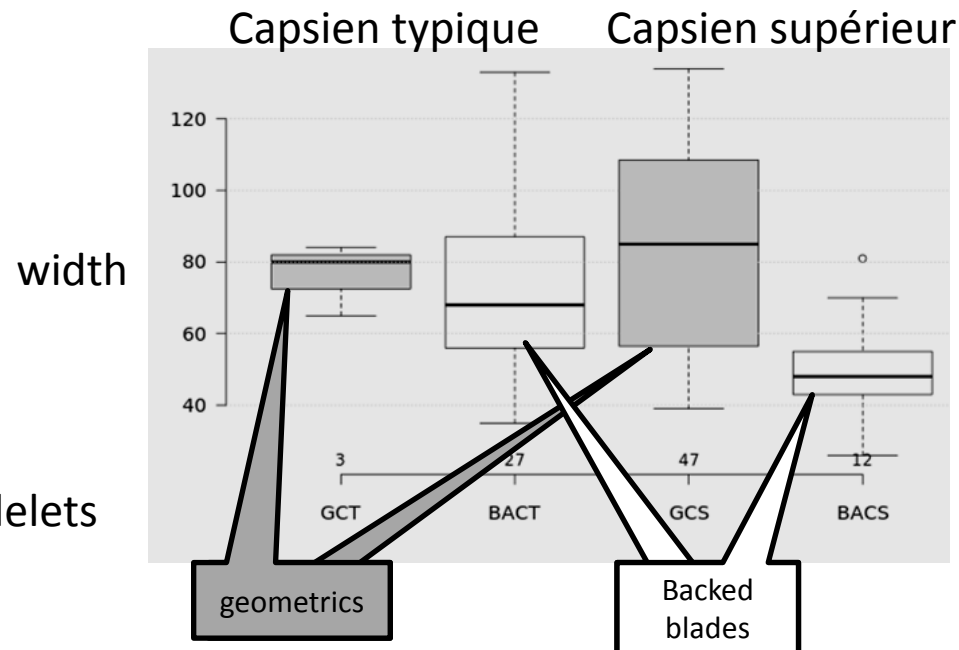
Results

Unit III	In situ, very good preservation
Unit V	Partially in situ, good preservation Partially altered, lag deposits



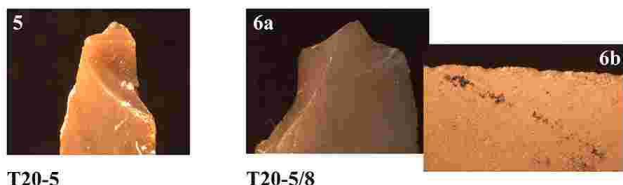
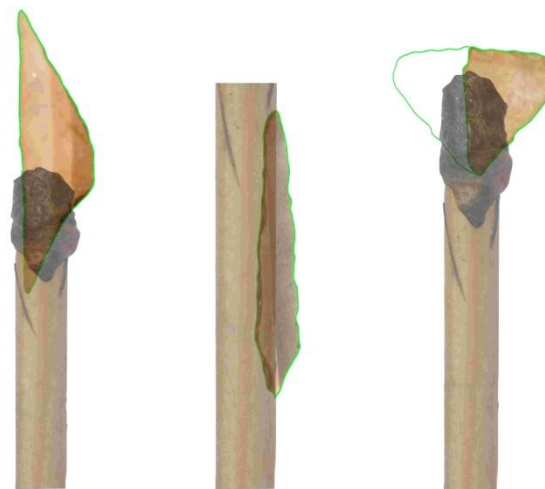
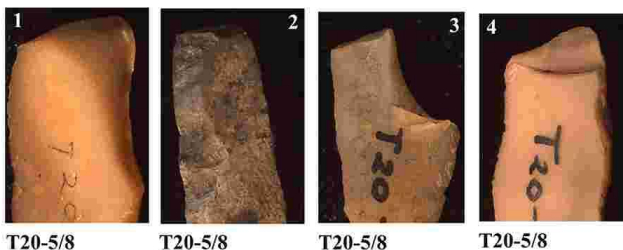
Backed blades and bladelets ; geometrics

	Backed blades and bladelets	geometrics
Capsien supérieur	30 mainly fragments with undetermined typology	118: 32 trapezes, 72 triangles, undetermined fragments
Capsien typique	56 mainly fragments with undetermined typology	6 (segments, triangles)

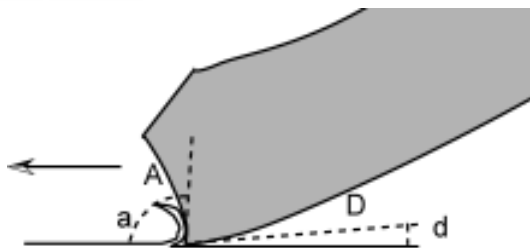
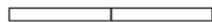
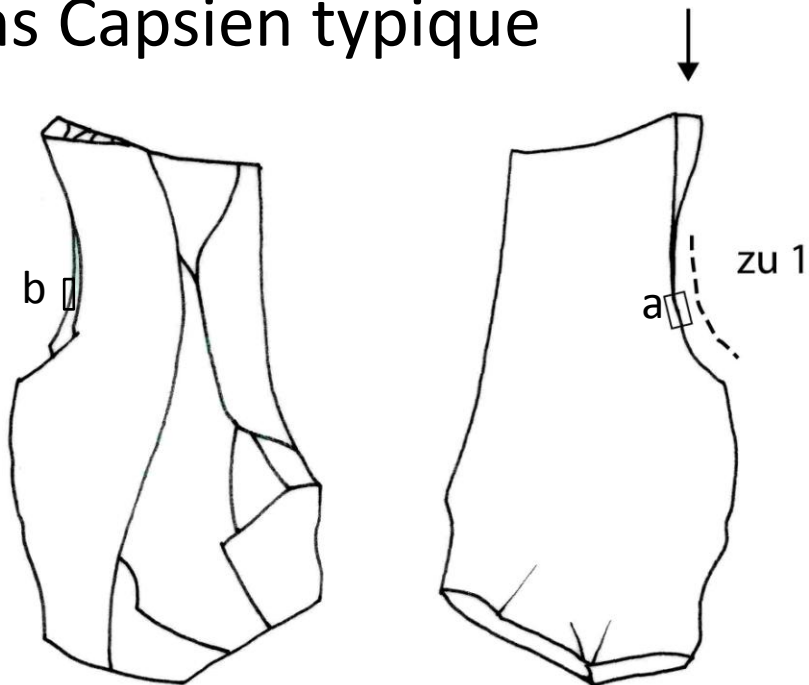


Backed blades and bladelets
and geometrics
with impact fractures

	Other uses	% diagnostic impact fractures		Other uses
	Backed blades and bladelets		Geometrics	
Capsien supérieur	Large blades= cutting tools	Fractured backed bladelets 60%	<ul style="list-style-type: none"> ➤ 50% ➤ Points or barbs ➤ Only 1 transverse 	1 trapeze used as a notched blade
Capsien typique		Fractured backed bladelets: 28/52 (54%)	2/6 (33 %)	



Burins Capsien typique



Wood (?) scraping

N: 45

2 used by other part

6 used on the lateral flank:

-1 scraping mineral

- 3 scraping hard or semi-hard

-2 scraping organic semi-hard material (wood ?)

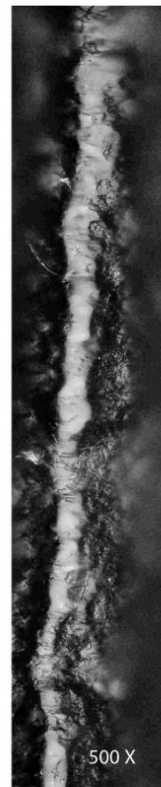


Burins Capsien supérieur

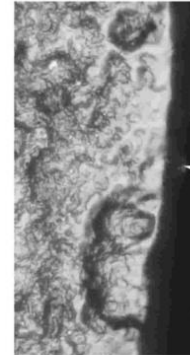
N: 9

1 used to scrape bone

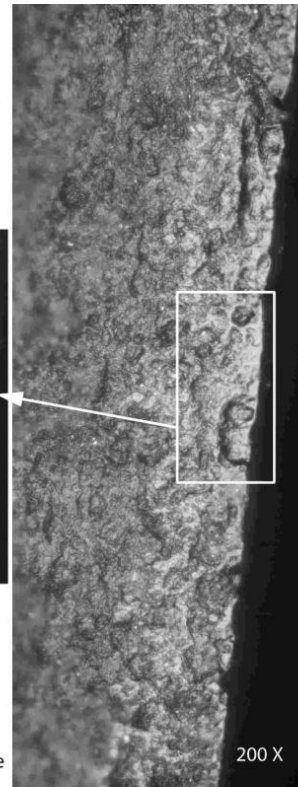
Maybe some burins could be nucleus?



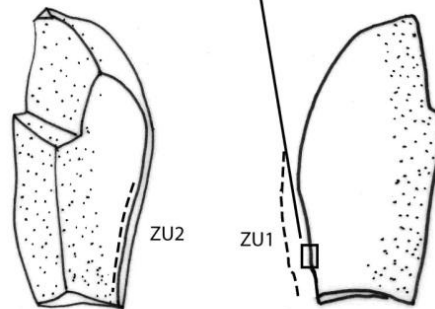
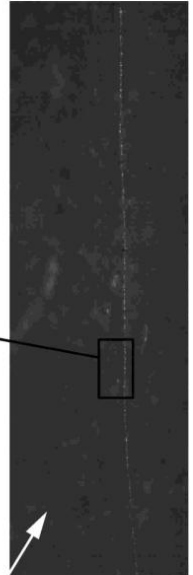
ZU1
Dépouille



ZU1
Attaque

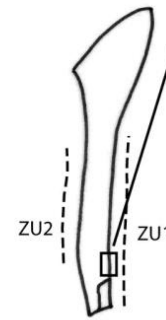


200 X



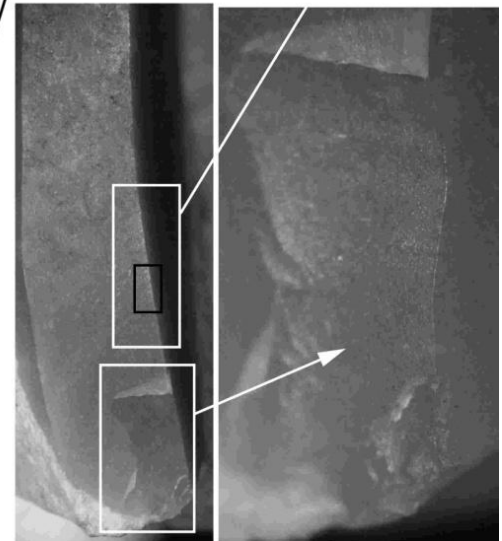
ZU2

ZU1



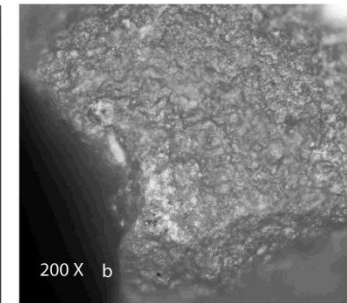
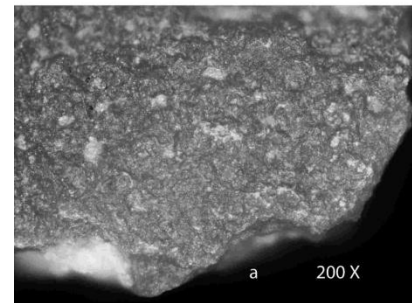
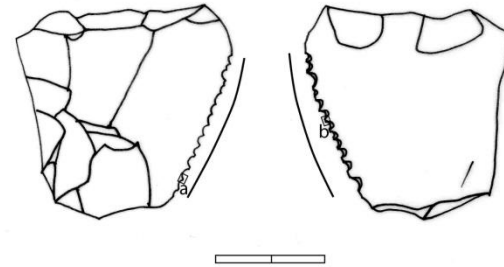
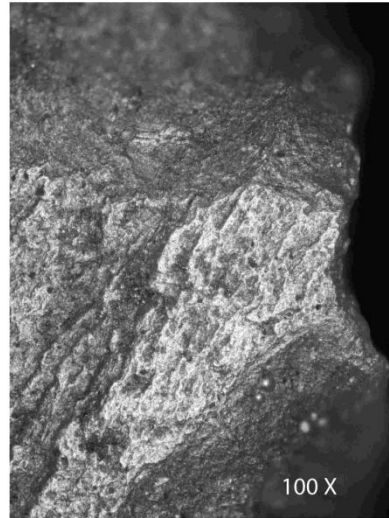
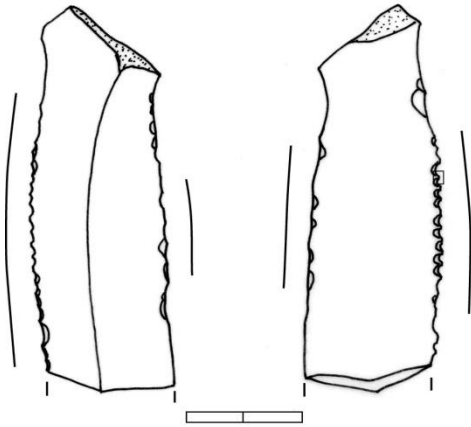
ZU2

ZU1



Scraping hard animal material (bone ?)

Denticulated blades or flakes from Capsien typique

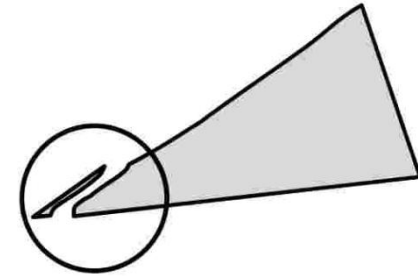
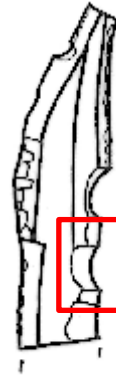
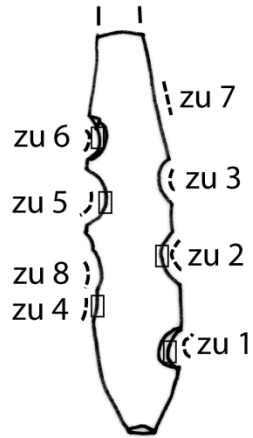
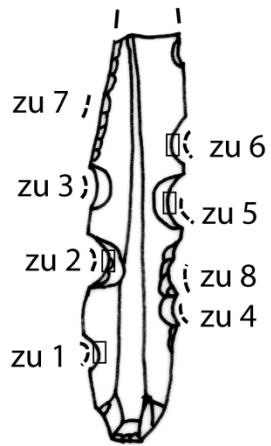


Microdenticulations (several per cm) ; probably cutting tools ?

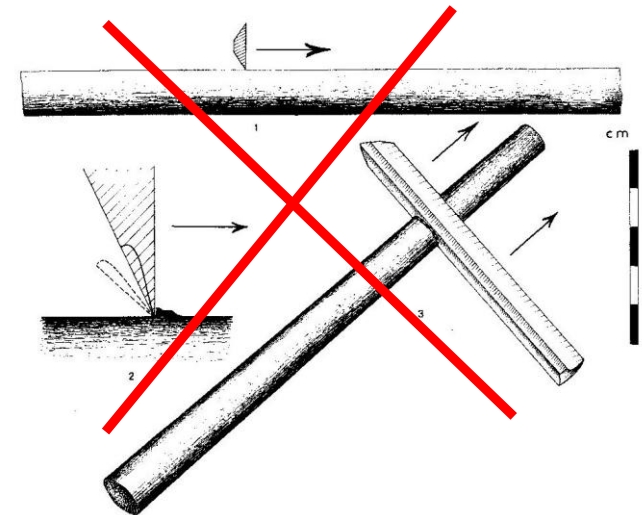
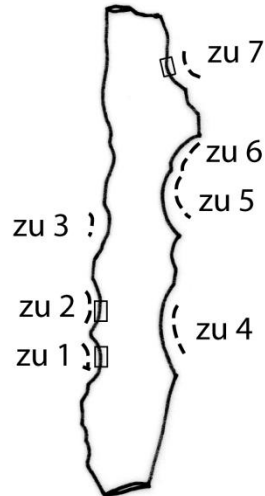
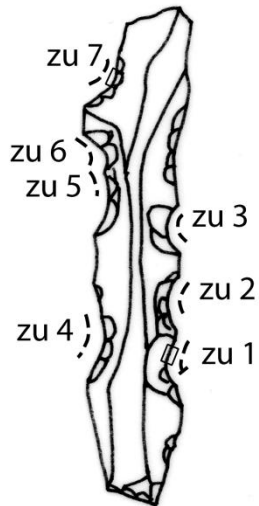
No traces of use found on « notched blades » : open question



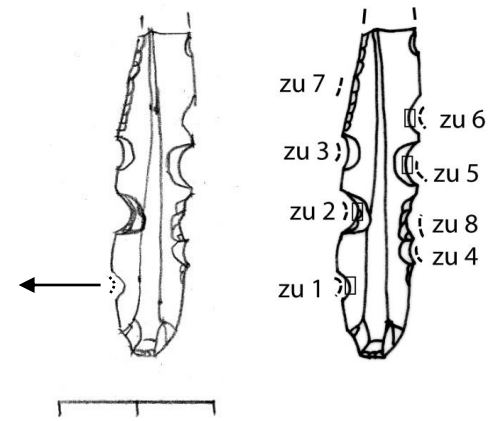
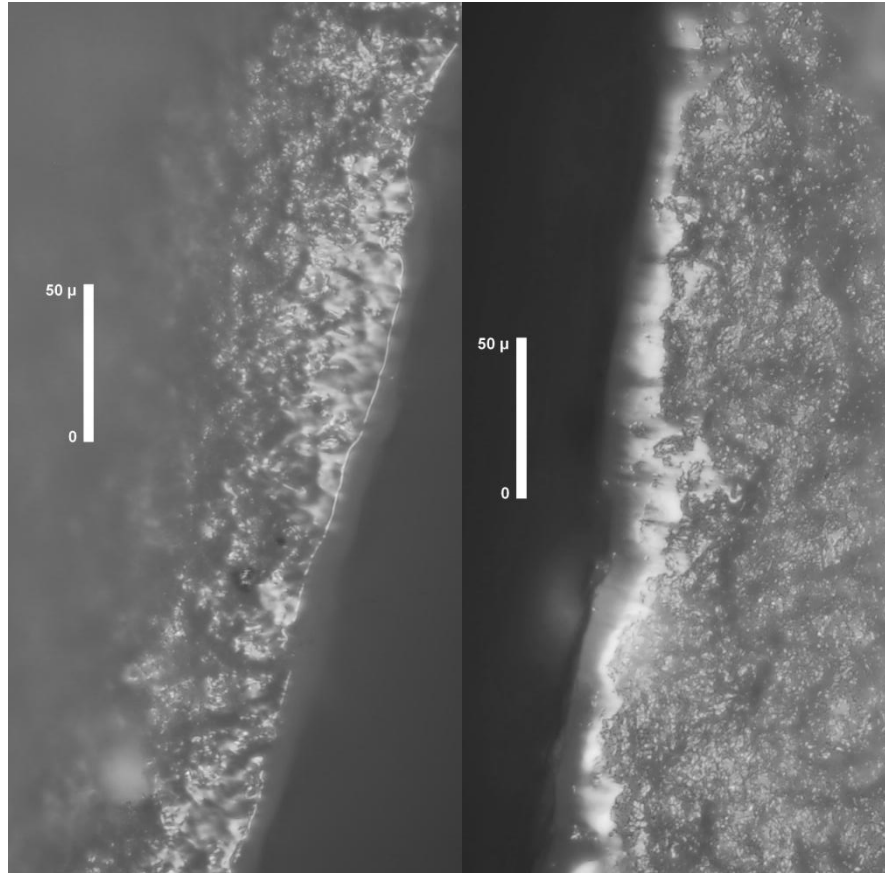
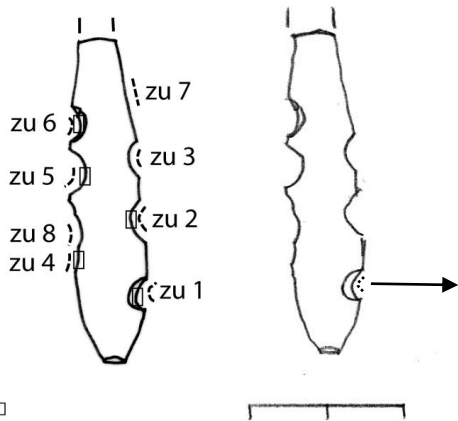
Notched blades and bladelets from Capsien supérieur

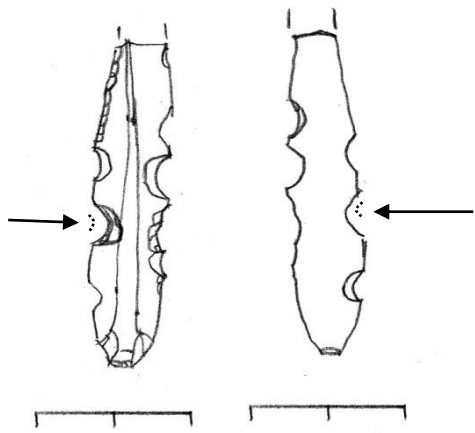
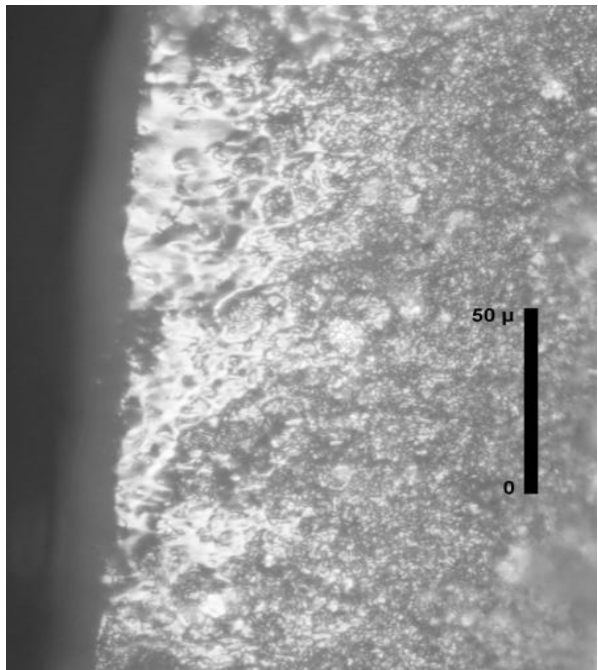
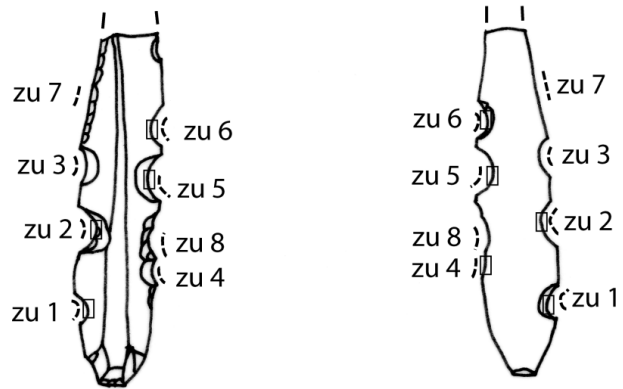


Bending fracture :
voluntary retouch,
not use scars

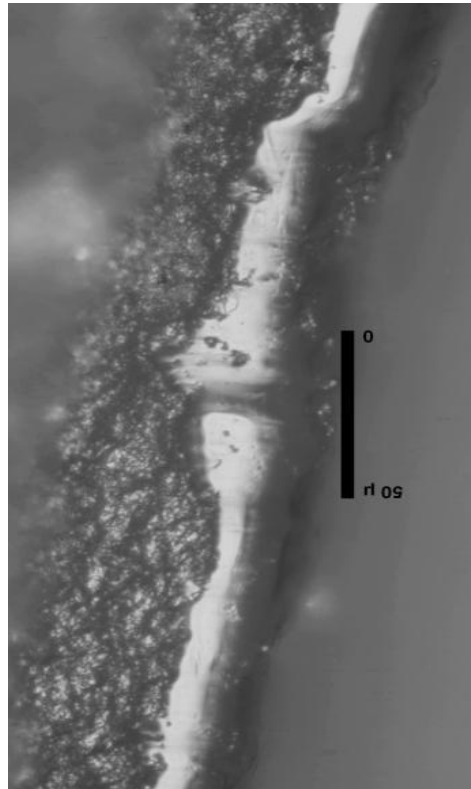


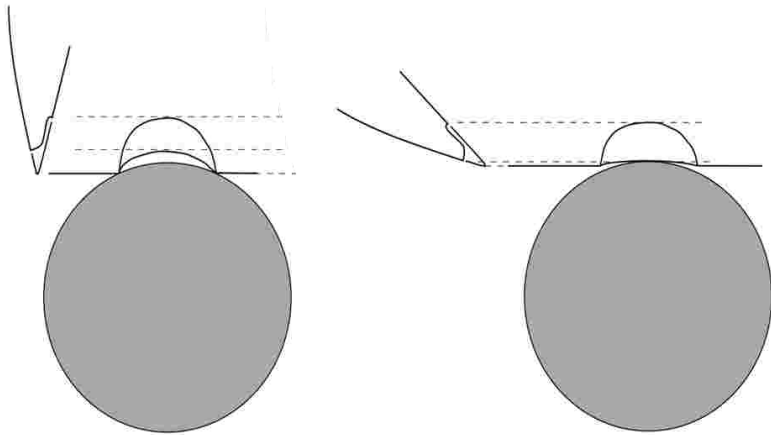
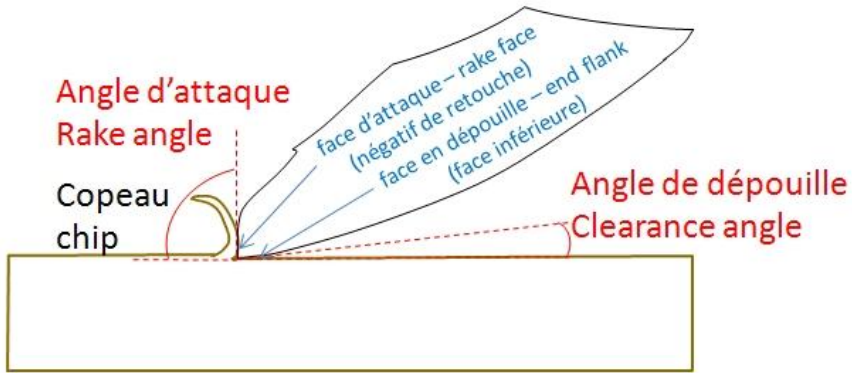
• ZU 1



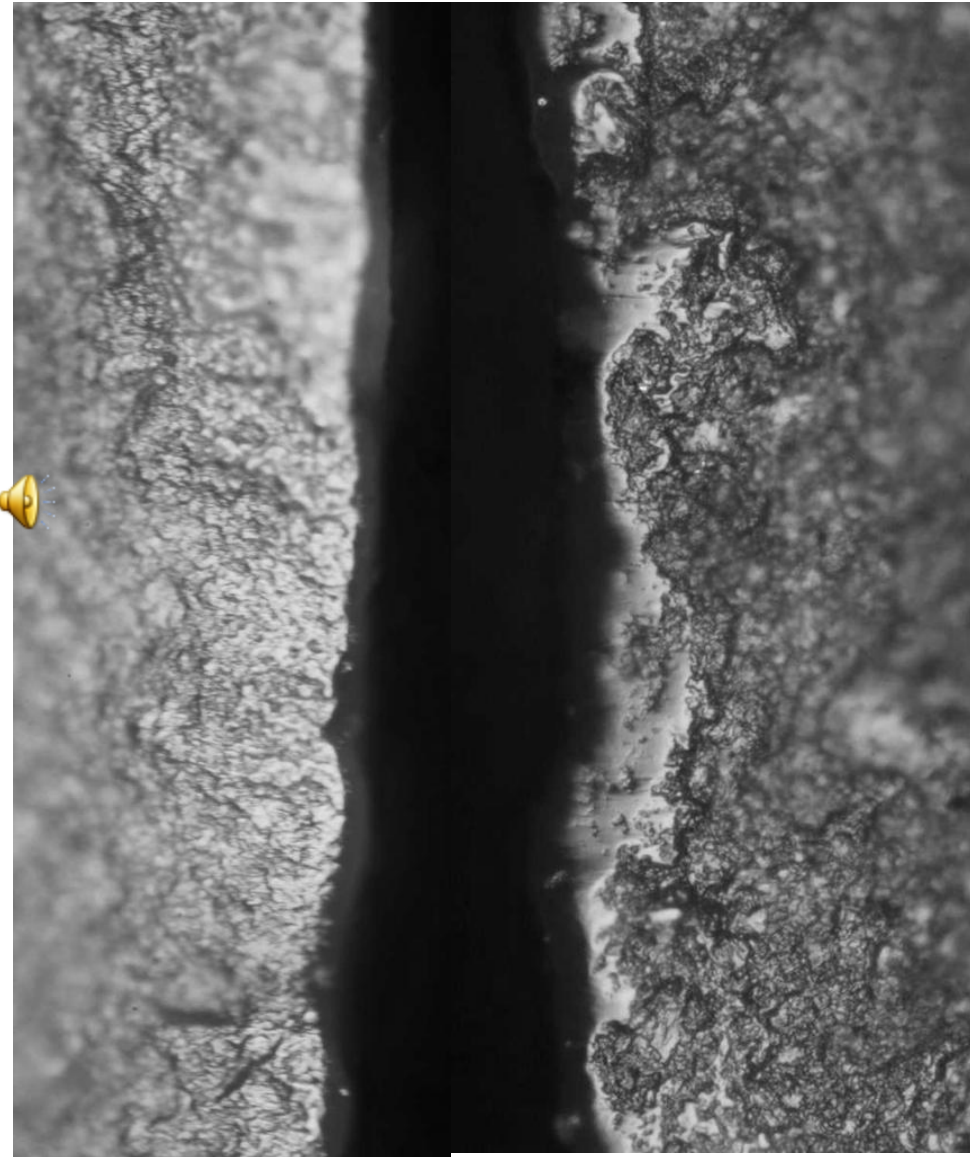


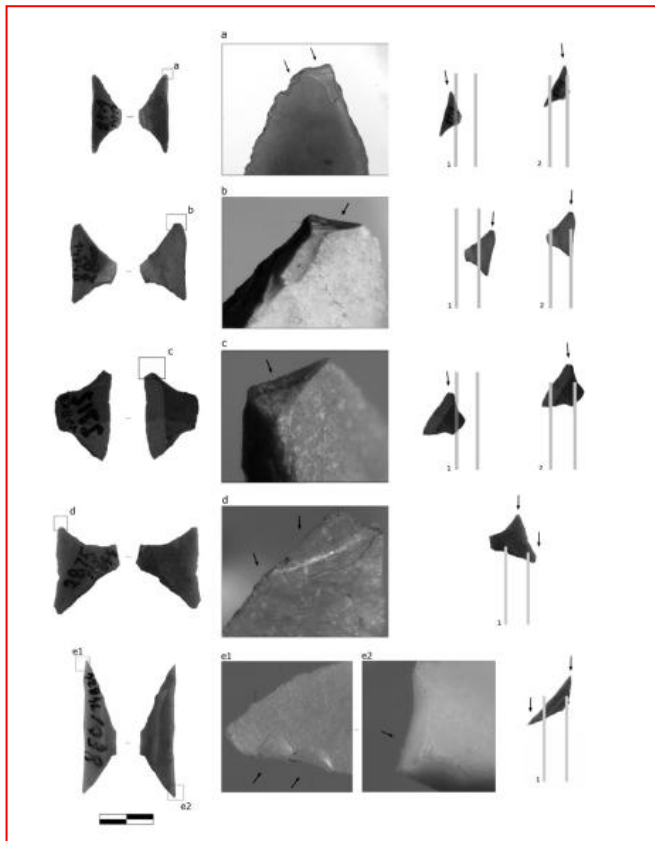
ZU 2
200 X.



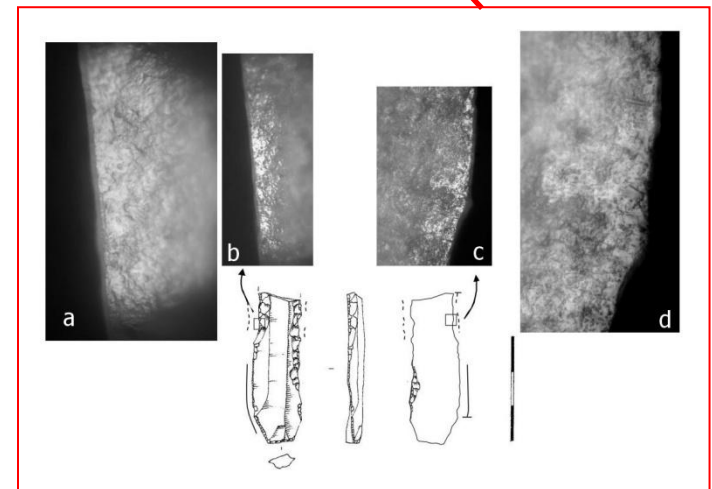
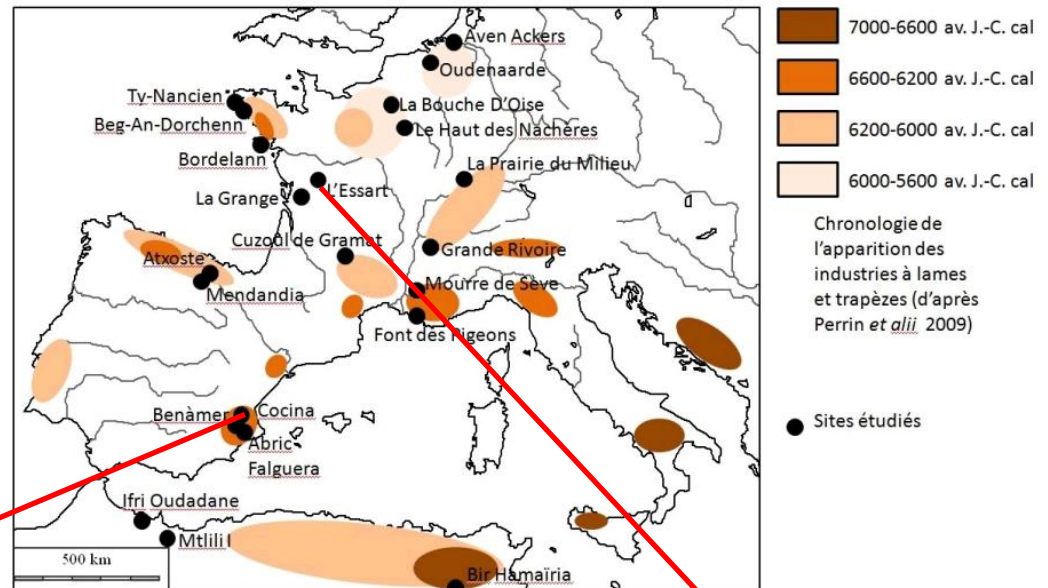


Wood scraping





Cocina, Spain
(Garcia Puchol *et alii*, 2014)



L'essart, France
Gassin *et al*, 2014

Same way of using trapezes and notched blades in lithic industries from Western Europ : similarities in production and use of the lithic tool kit.



HOLOCENE PREHISTORY IN THE TÉLIDJÈNE BASIN, EASTERN ALGERIA

CAPSIAN OCCUPATIONS AT
KEF ZOURA D AND AÏN MISTEHEYIA

Assembled and edited by

David Lubell

