



Università
degli Studi
di Ferrara

Marco Peresani

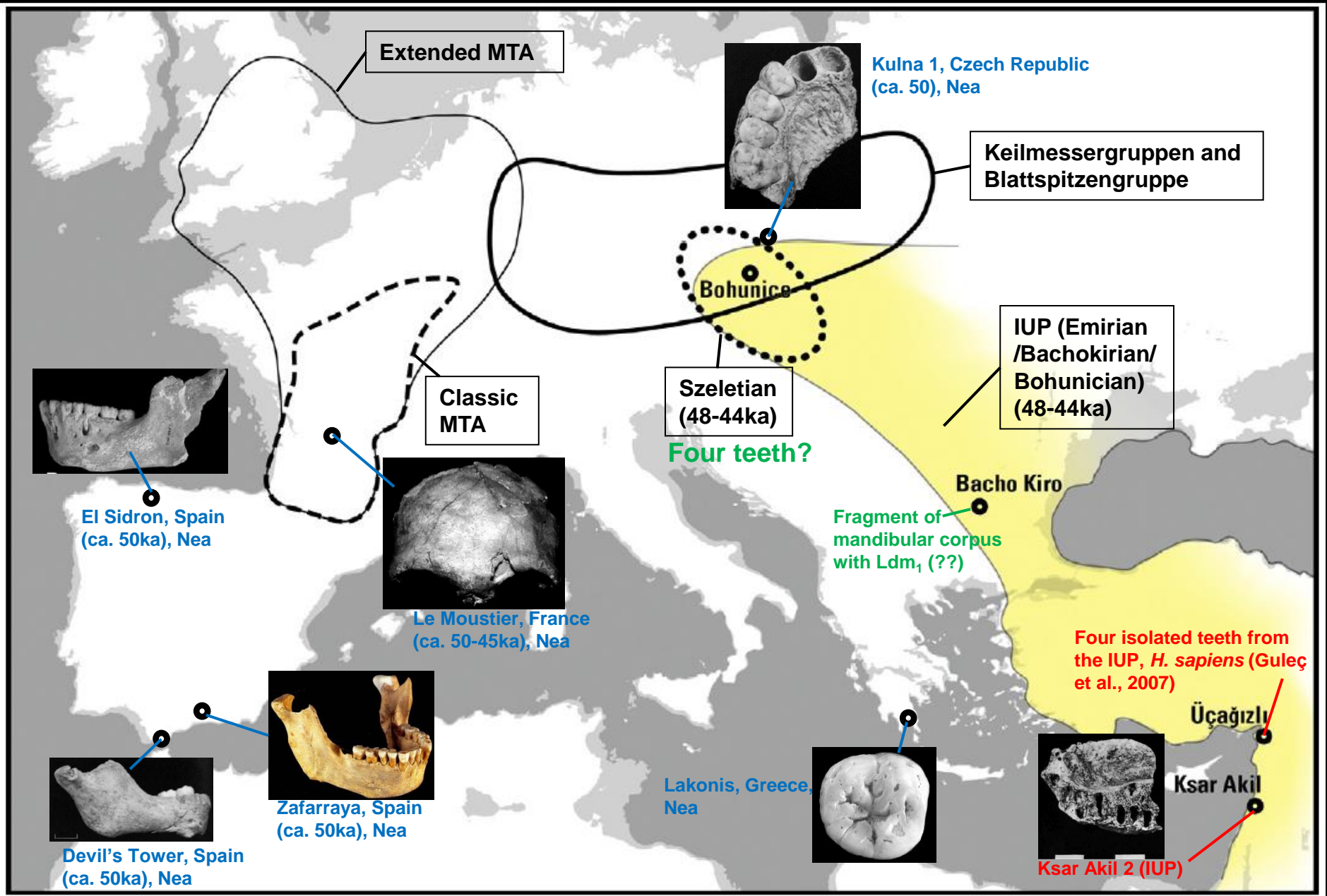
Cronologie e culture del Paleolitico

Lezione 13I – The UluzzianI



La migration Dessin de Benoit Clarys

Between 50 and 45 ka cal BP



The Final Mousterian in Italy



Fumane: the last Levallois blade
production 45ky Cal BP

Riparo Oscurusciuto, 43Ky Cal BP

The Uluzzian represents a distinct industry, identified on the basis of small, crescent-shaped microliths, a combination of Middle and Upper Palaeolithic stone tool types, and variable incidence of splintered pieces associated with bone industries, perforated marine shells and mineral pigments (Palma di Cesnola, 1993).



Uluzzian bone technology and its implications for the origin of behavioural modernity

Francesco d'Errico ^{a,b,*}, Valentina Borgia ^c, Annamaria Ronchitelli ^c

What roots for the Uluzzian? Modern behaviour in Central-Southern Italy and hypotheses on AMH dispersal routes

Adriana Moroni ^{*}, Paolo Boscutti ^a



Middle–Upper Palaeolithic transition in Southern Italy: Uluzzian macromammals from Grotta di Fumane and Grottole (Apulia)

Paolo F...



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Journal of Human Evolution

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The Uluzzian technology of Grotta di Fumane and its implication for reconstructing cultural dynamics in the Middle–Upper Palaeolithic transition of Western Eurasia

Marco Peresani ^{a,*}, Emanuela Cristiani ^b, Matteo Romandini ^a

What Is a 'Transitional' Industry? The Uluzzian of Southern Italy as a Case Study

Julien Riel-Salvatore



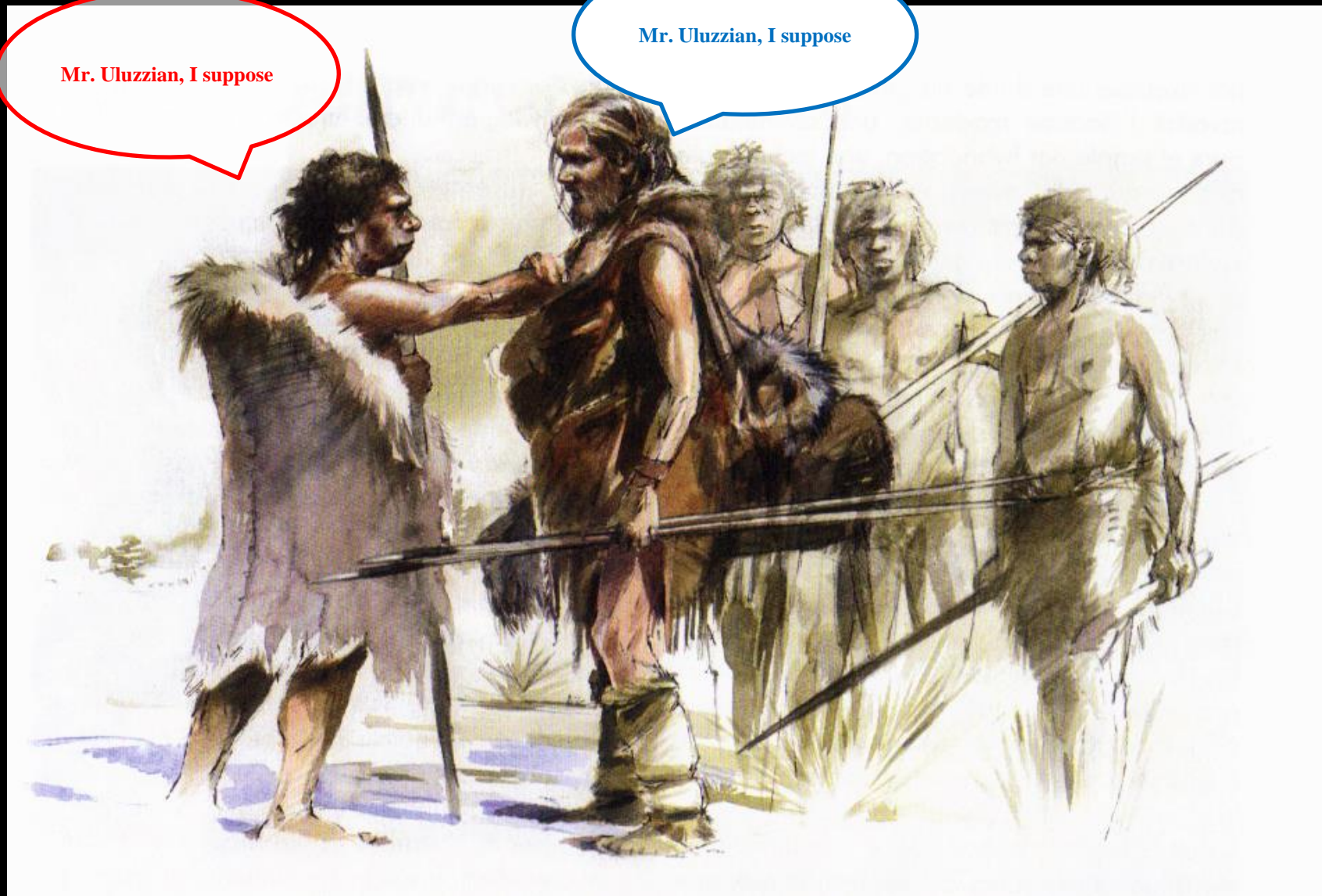
On the chronology of the Uluzzian

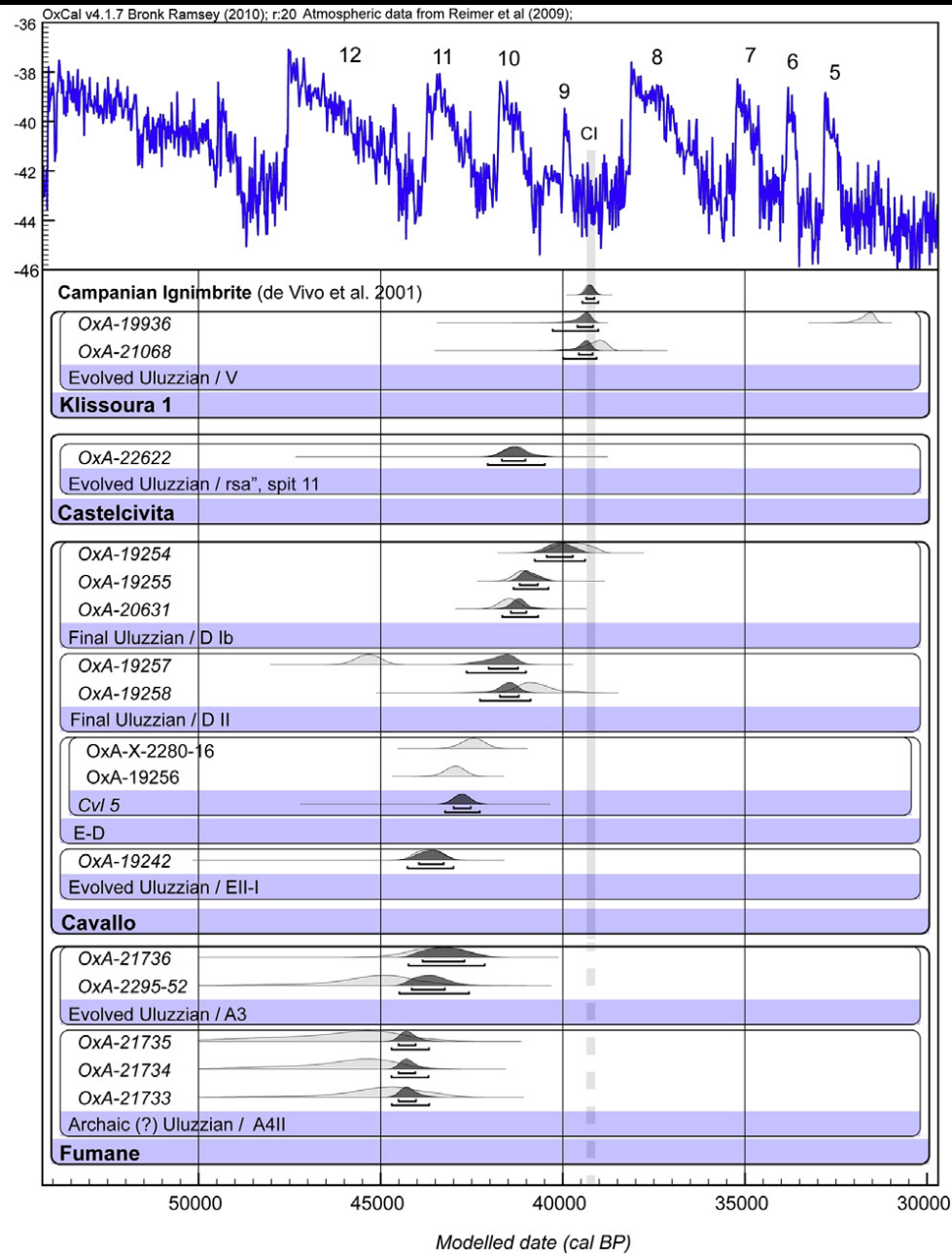
Katerina Douka ^{a,*}, Thomas F.G. Higham ^a, Rachel Wood ^{a,b}, Julien Riel-Salvatore ^c, Boscato ^c, Paolo Gambassini ^c, Panagiotis Karkanas ^d, Marco Peresani ^e, Anna Maria Ronchitelli ^c

... in the context of “transitional” industries with disputed dates for the arrival of modern humans in Europe typo-technology used as an indicator of hominin authorship has limited predictive value. (P.Villa et al., 2018)

Mr. Uluzzian, I suppose

Mr. Uluzzian, I suppose



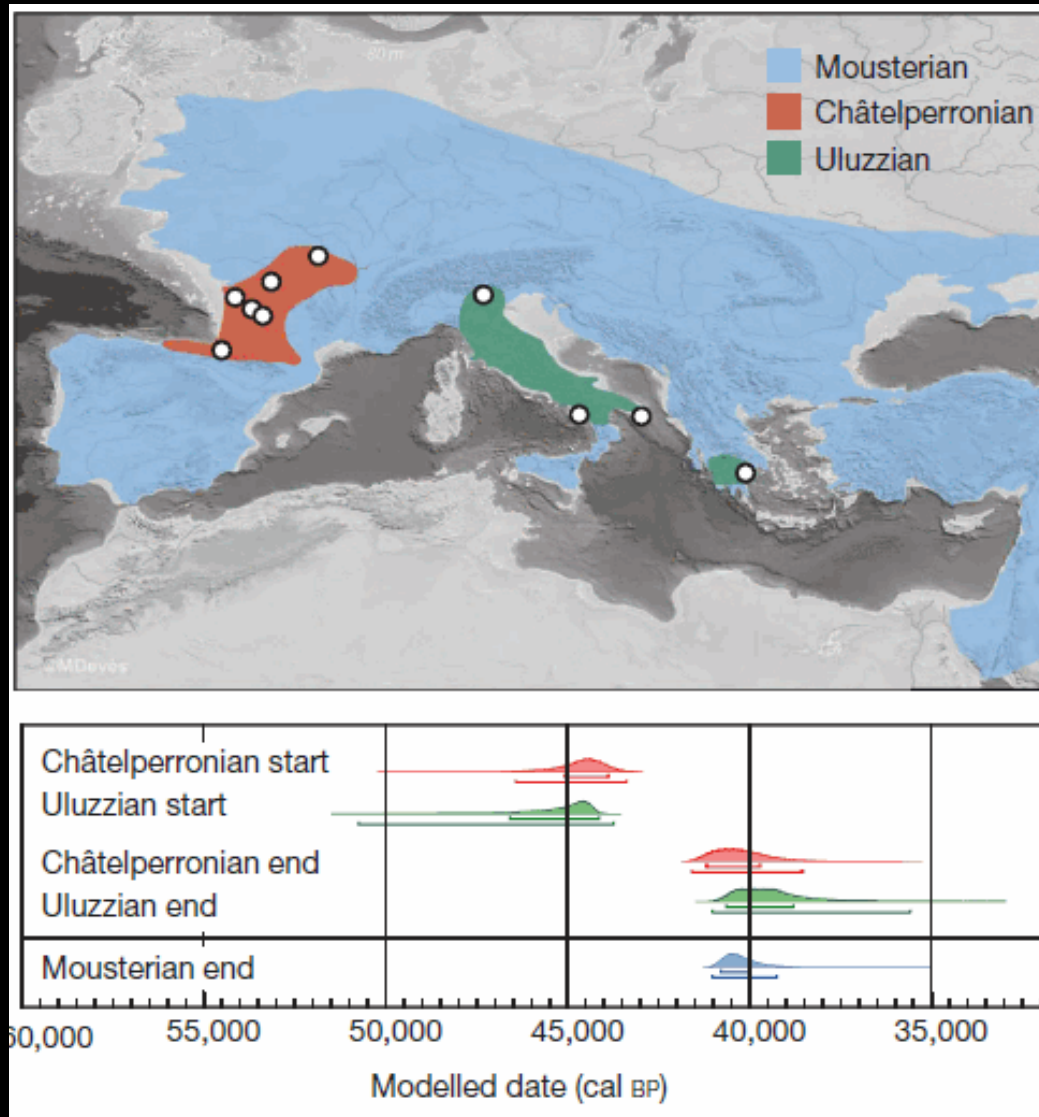


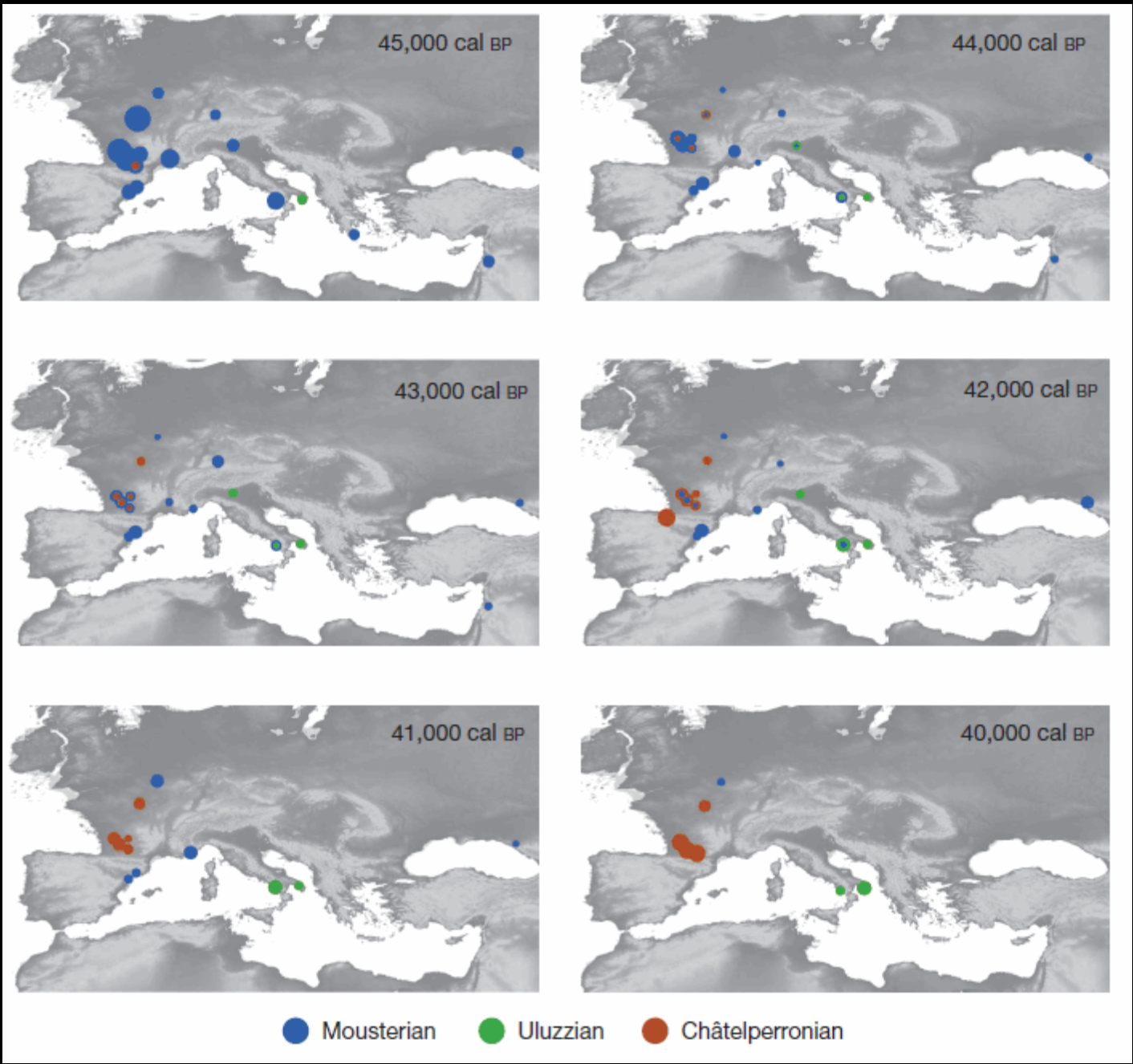
Bayesian modelling based on the new radiocarbon determinations from four Uluzzian contexts in Italy and Greece.

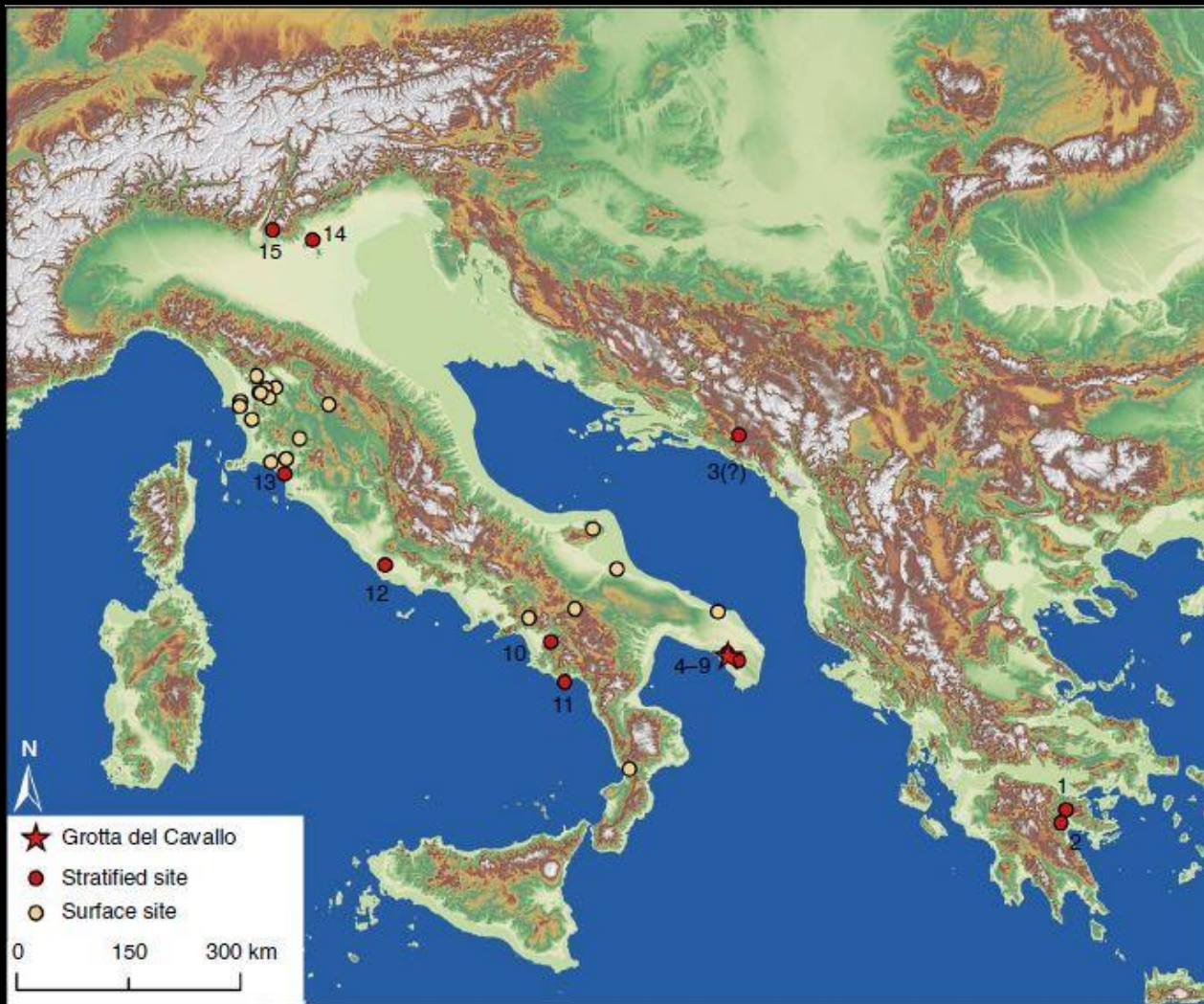
Douka et al., 2014

The timing and spatiotemporal patterning of Neanderthal disappearance

Tom Higham¹, Katerina Douka¹, Rachel Wood^{1,2}, Christopher Bronk Ramsey¹, Fiona Brock¹, Laura Basell³, Marta Camps⁴,

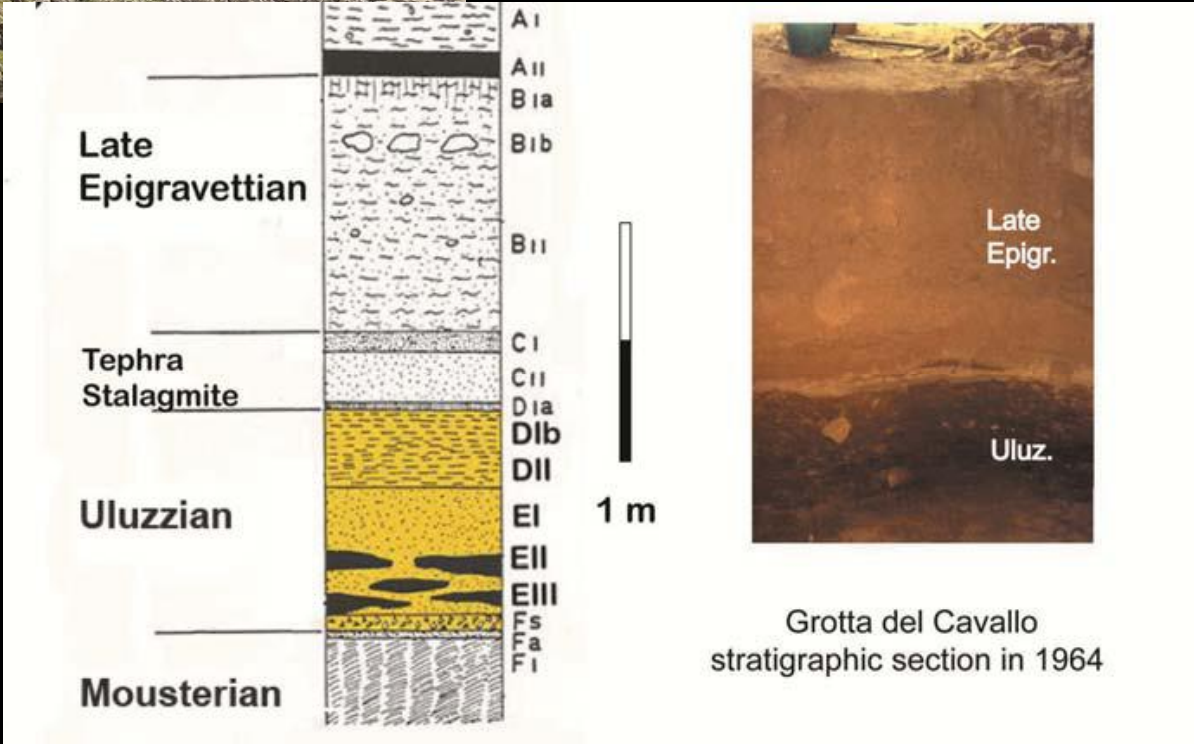






Locations of the Uluzzian findings in Italy and on the Balkan Peninsula. 1, Klissoura Cave; 2, Kephalaria Cave; 3, Crvena Stijena; 4, Grotta del Cavallo; 5, Grotta di Serra Cicora A; 6, Grotta Mario Bernardini; 7, Grotta di Uluzzo; 8, Grotta di Uluzzo C/Cosma; 9, Grotta delle Veneri; 10, Grotta di Castelcivita; 11, Grotta della Cala; 12, Colle Rotondo; 13, Grotta La Fabbrica; 14, Riparo del Broion; 15, Grotta di Fumane. Sea level is 74 m below the presentday coastline

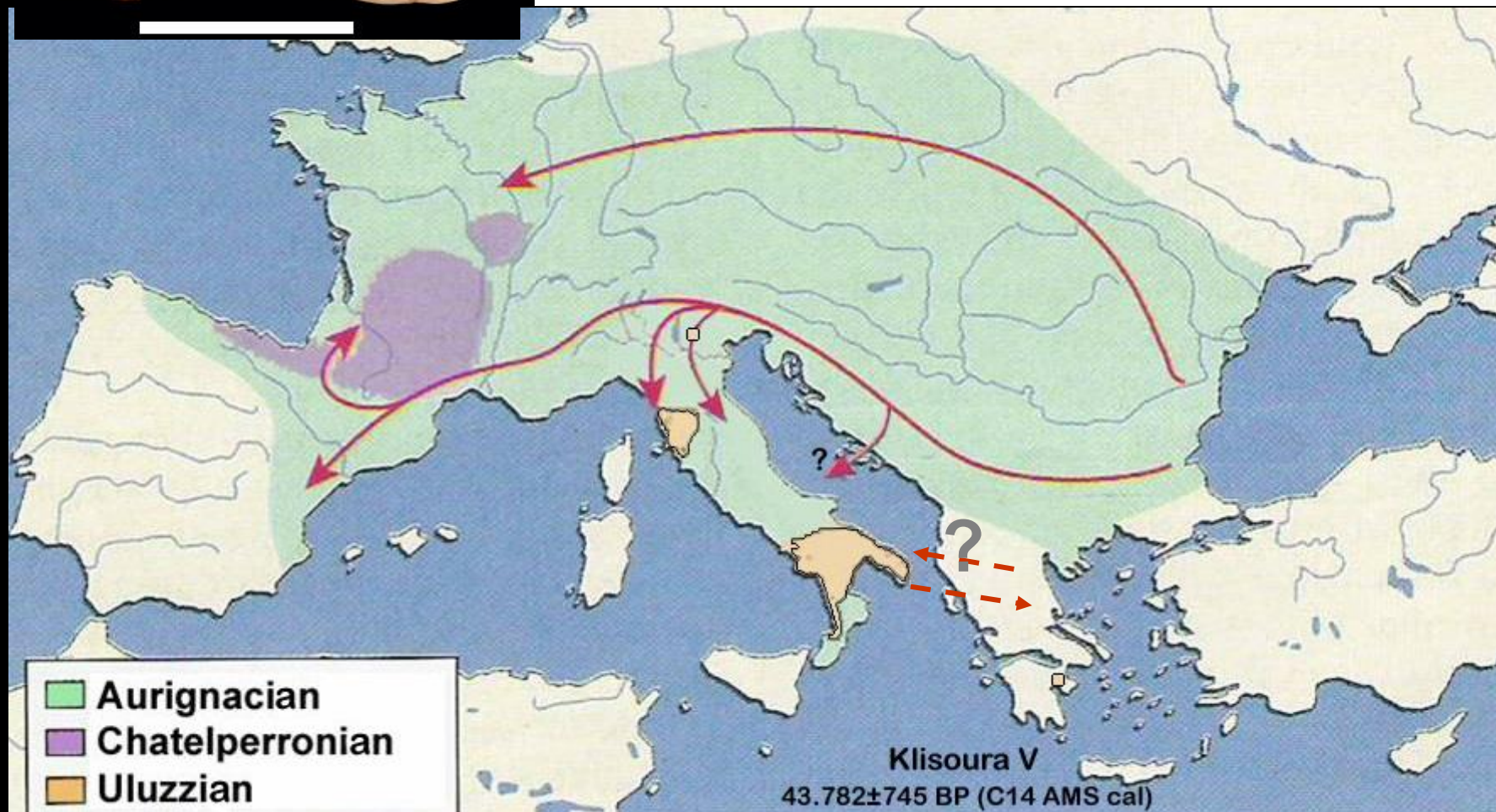
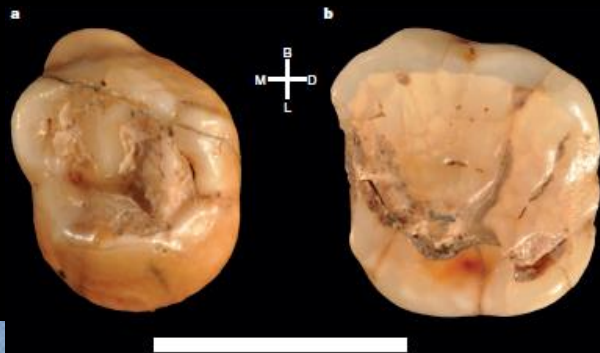
Cavallo cave



Grotta del Cavallo stratigraphic section in 1964

Early dispersal of modern humans in Europe and implications for Neanderthal behaviour

Stefano Benazzi¹, Katerina Douka², Cinzia Fornai¹, Catherine C. Bauer³, Ottmar Kullmer⁴, Jiří Svoboda^{5,6}, Ildikó Pap⁷, Francesco Mallegni⁸, Priscilla Bayle⁹, Michael Coquerelle¹⁰, Silvana Condemi¹¹, Annamaria Ronchitelli¹², Katerina Harvati^{3,13} & Gerhard W. Weber¹

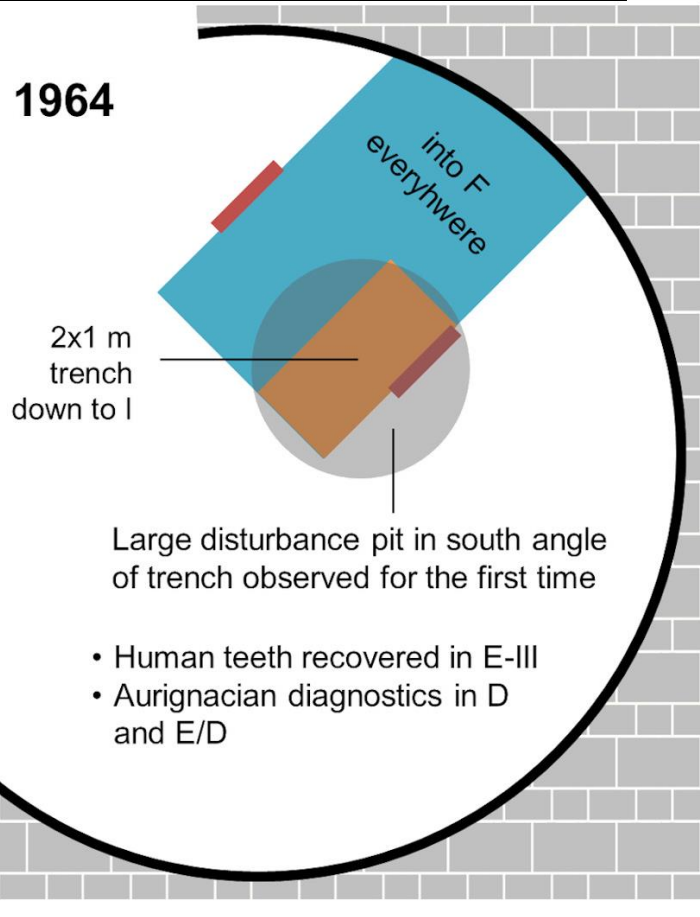


Analysis of Site Formation and Assemblage Integrity Does Not Support Attribution of the Uluzzian to Modern Humans at Grotta del Cavallo

João Zilhão^{1,2}, William E. Banks^{3,4}, Francesco d'Errico^{3,5*}, Patrizia Gioia⁶

B

1964

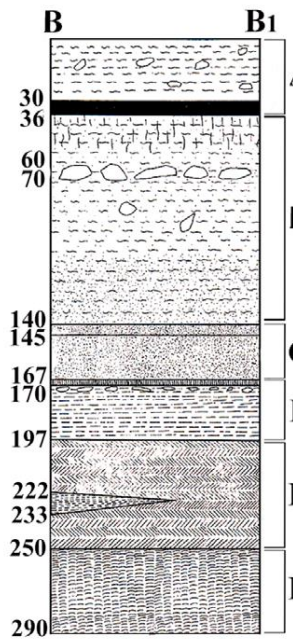


**The Emergence of Ornaments and Art:
An Archaeological Perspective on the
Origins of “Behavioral Modernity”**

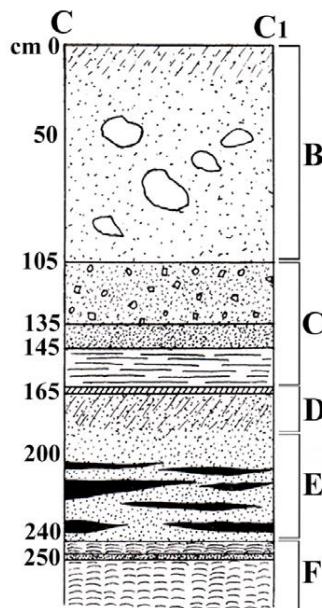
João Zilhão

Human remains **associated** with the Uluzzian are limited to two deciduous teeth found in level E of the Cavallo cave, which are similar to Neandertal teeth in size, cusp morphology, and taurodontism..... (Churchill and Smith, 2000).

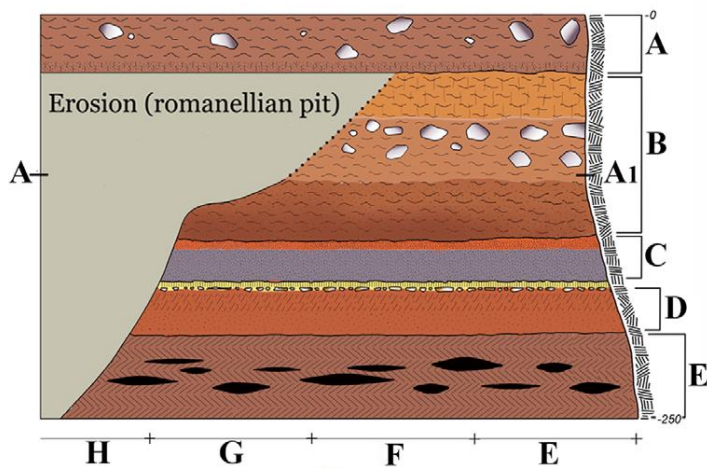
.....the fact that the earliest Upper Paleolithic is the Uluzzian suggests that its makers are the same as those behind the Uluzzian of Italy, i.e., Neandertals.



1

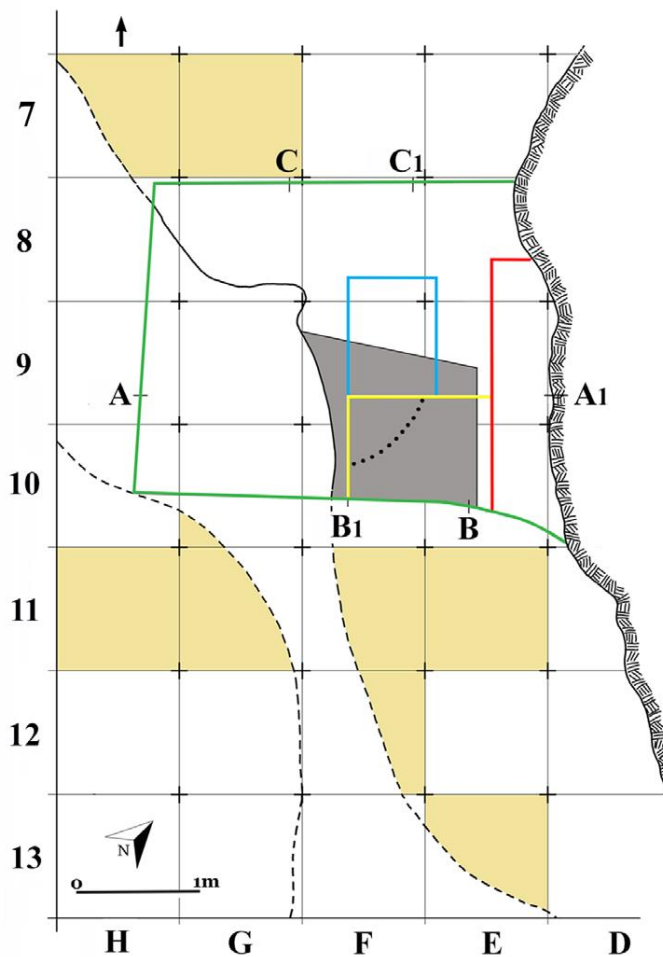


2



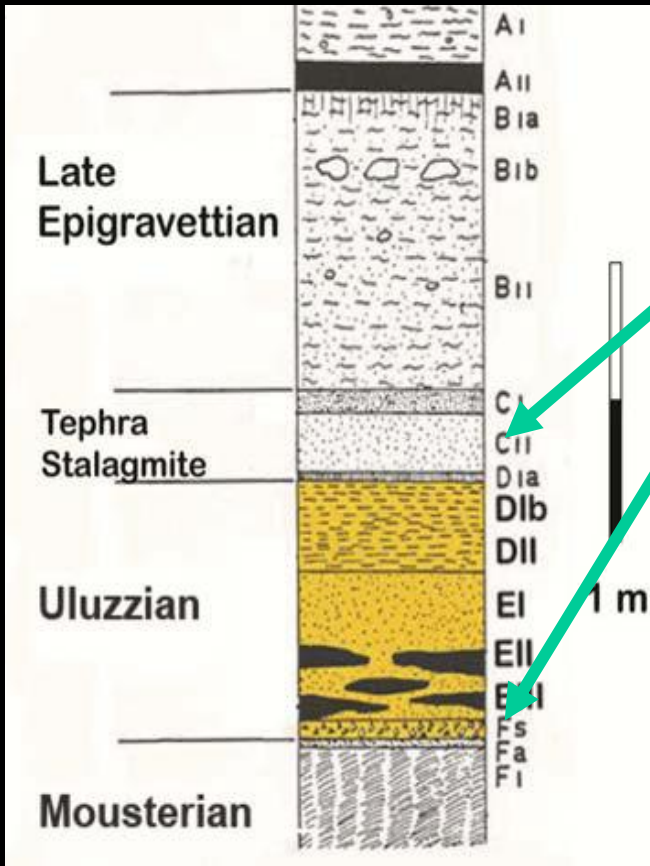
3

Cave entrance



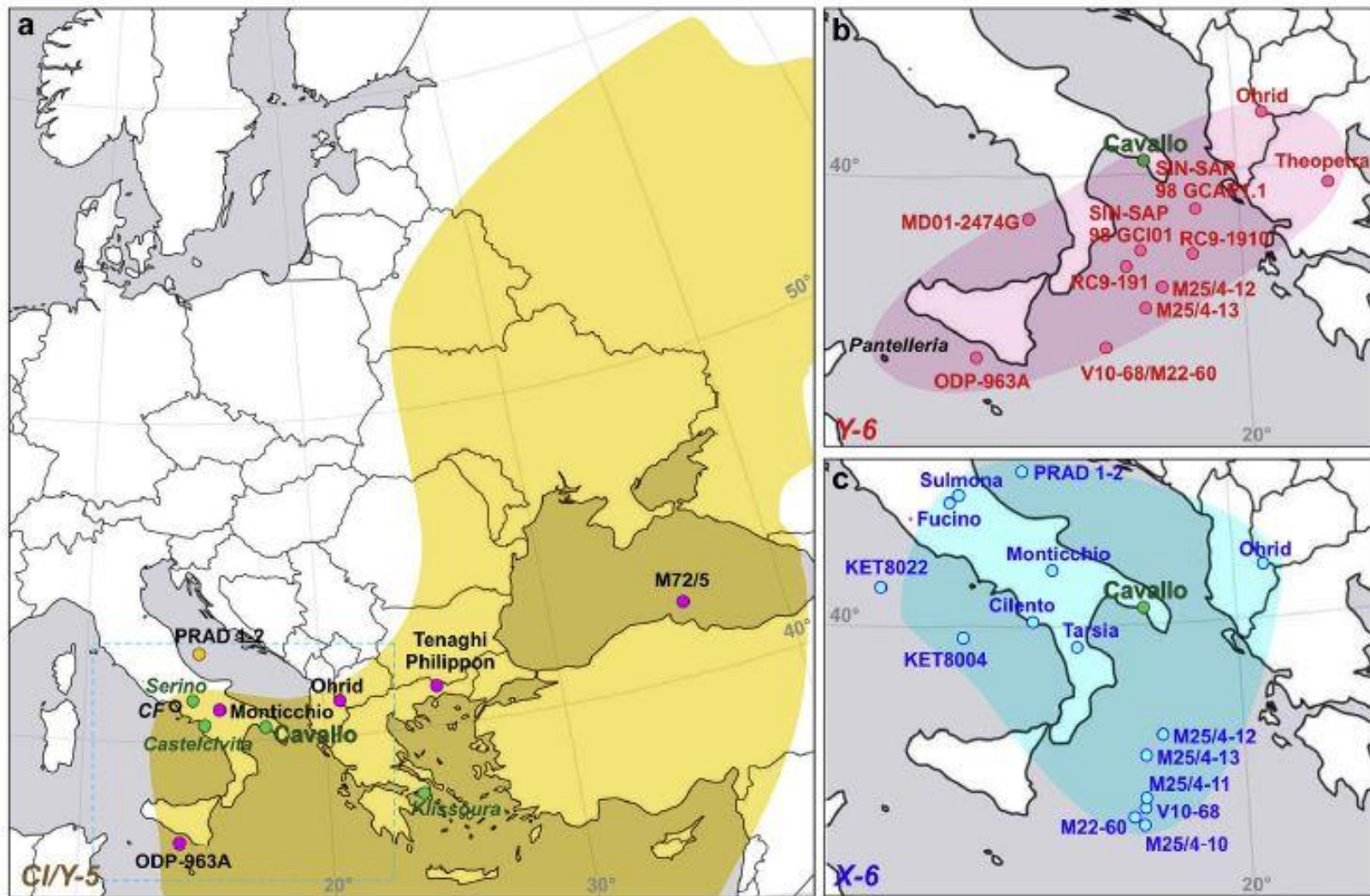
- Gambassini's excavations
- Trench P
- Trench X
- Trench A
- Trench B1
- Principal trench
- Erosion limits

4



Two tephra layers were chemically fingerprinted and correlated to well-known and precisely dated widespread Late Pleistocene tephra markers: **Y-6** (45.5 ± 1.0 ka) and **Campanian Ignimbrite** (39.85 ± 0.14 ka), respectively. These findings provide robust chronological points allowing to conclude that:

- (i) the Mousterian-Uluzzian boundary can be dated to 45.5 ± 1.0 ka and climatostratigraphically firmly placed at the transition between the Greenland Interstadial 12 (GI12)-Greenland Stadial 12 (GS12);
- (ii) (ii) the Uluzzian lasted for at least five millennial spanning the GS12-GI9 period and ended at beginning of the Heinrich Event 4.



○ CI dispersal area (Costa et al., 2012) and other CI occurrences (dots) not included in Costa et al. (2012).

○ Y-6 dispersal area and related stratigraphic occurrences.

○ X-6 dispersal area and related stratigraphic occurrences.

● Palaeolithic sites mentioned in the text.

● Palaeoclimatic records mentioned in the text.

**Grotta del Cavallo (Apulia – Southern Italy).
The Uluzzian in the mirror**

Adriana Moroni^{1,2,3}, Annamaria Ronchitelli¹, Simona Arrighi^{4,1,2}, Daniele Aureli^{4,1,5},
Shara E. Bailey⁶, Paolo Boscato¹, Francesco Boschini^{1,2}, Giulia Capecchi^{1,2,3}, Jacopo
Crezzini^{1,2}, Katerina Douka⁷, Giulia Marciani^{8,9,1}, Daniele Panetta¹⁰, Filomena
Ranaldo^{1,11}, Stefano Ricci¹, Sem Scaramucci¹, Vincenzo Spagnolo^{1,2}, Stefano
Benazzi^{4,12} & Paolo Gambassini¹

.... the early Uluzzians demonstrate original technological behavior and innovations devoid of any features deriving or directly linked with the late Mousterian of Southern Italy.

Therefore, the novelty nature of the Uluzzian techno-complex complies with the recent reassessment of the two deciduous teeth from Grotta del Cavallo in suggesting an earliest migration of modern humans in southern Europe around 45,000 years ago.

Italy 45-40 ka

What roots for the Uluzzian? Modern behaviour in Central-Southern Italy and hypotheses on AMH dispersal routes

Adriana Moroni¹, Paolo Boscato, Annamaria Ronchitelli

Journal of Human Evolution

Middle Paleolithic and Uluzzian human remains from Fumane Cave, Italy

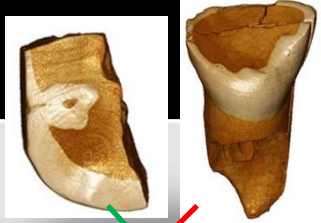
Stefano Benazzi^{1,2}, Sara E. Bailey^{3,4}, Marco Peresani⁵, Marcello A. Mannino⁶, Matteo Bonazzoli⁷, Michael P. Richards^{8,9}, Jean-Jacques Hublin¹⁰

ARCHAEOLOGY

The makers of the Protoaurignacian and implications for Neandertal extinction

S. Benazzi,^{1,2} V. Slon,³ S. Talamo,⁴ F. Negrino,⁵ M. Peresani,⁶ S. E. Bailey,^{7,8} S. Scuyves,⁹ D. Panfili,⁹ G. Vietini,⁹ E. Starnini,^{9,10} M. A. Mannino,⁶ P. A. Salvadori,⁷ M. Meyer,⁹ S. Pääbo,⁹ J.-J. Hublin¹⁰

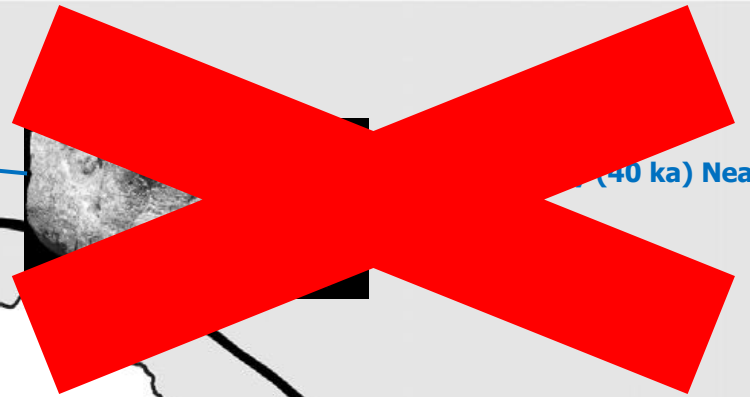
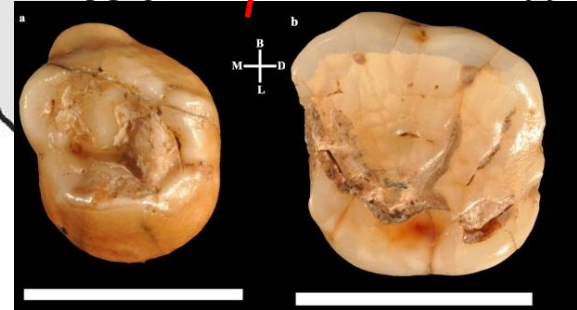
Grotta di Fumane



Riparo Bombrini



Grotta del Cavallo



(40 ka) Nea

- Uluzzian sites
- Italian Proto-Aurignacian spread

The Riparo Mezzena illusion



SCIENTIFIC REPORTS

OPEN Direct radiocarbon dating and genetic analyses on the purported Neanderthal mandible from the Monti Lessini (Italy)

Received: 07 April 2016
Accepted: 13 June 2016
Published: 08 July 2016

Sahra Talamo¹, Mateja Hajdinjak², Marcello A. Mannino^{1,3}, Leone Fasanini⁴, Frido Welker^{1,5}, Fabio Martini⁶, Francesca Romagnoli^{6,7,8}, Roberto Zorzin⁹, Matthias Meyer² & Jean-Jacques Hublin¹

Conti



Comptes Rendus Palevol



Museum reference Number	Anatomic Element	MPI Lab Code	Coll %	$\delta^{13}\text{C}$	$\delta^{15}\text{N}$	%C	%N	C:N	AMS Lab Code	^{14}C Age	Err 1 σ	68.2% cal BP from-to	95.4% cal BP from-to
IGVR 203334	Mandible	S-EVA 32612	1.3	-21.8	7.1	8.2	2.4	4.1	MAMS-24343	5,580	26	6,400-6,310	6,410-6,300
IGVR 63017-15	Left Parietal fragment	S-EVA 32613	2.9	-20.7	9.3	34.7	12.1	3.4	MAMS-24344	5,675	23	6,490-6,410	6,500-6,400
IGVR 63017-2	Occipital	S-EVA 32614	4.5	-20.7	9.3	38.2	13.3	3.3	MAMS-24345	5,530	23	6,390-6,290	6,400-6,280
IGVR 63017-4	Left Temporal fragment	S-EVA 32615	1.4	-20.4	5.7	30.2	10.0	3.5	MAMS-24346	25,530	107	29,800-29,440	30,090-29,290
IGVR 63017-12	Cranial fragment	S-EVA 32616	0.8	-21.2	6.6	17.8	5.6	3.7	MAMS-24347	10,190	33	11,980-11,810	12,050-11,750

5 cm

OPEN ACCESS Freely available online

Possible Interbreeding in Late Italian Neanderthals? New Data from the Mezzena Jaw (Monti Lessini, Verona, Italy)

Silvana Condemi^{1,*}, Aurélien Mounier^{1,2}, Paolo Giunti³, Martina Lari⁴, David Caramelli⁴, Laura Longo^{5*}

PLOS ONE

Did Neandertals and anatomically modern humans coexist in northern Italy during the late MIS 3?

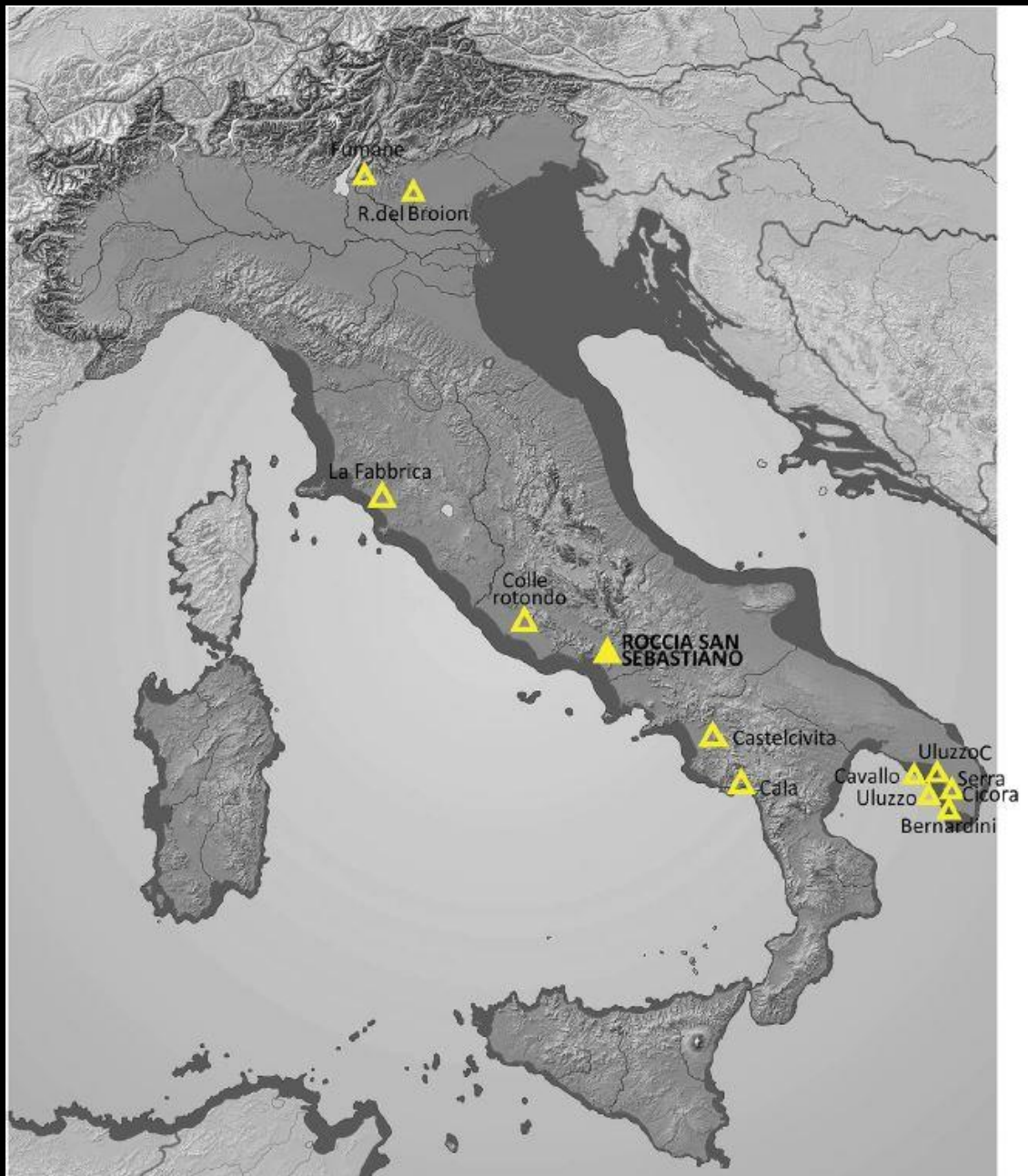
Laura Longo^{1,*}, Elisabetta Boaretto⁴, David Caramelli⁴, Paolo Giunti⁴, Martina Lari⁴, Lucio Milani⁴, Marcello A. Mannino⁴, Benedetto Sala⁴, Ursula Thun Hohenstein⁴, Silvana Condemi⁴

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





Rediscovering the Uluzzian

Castelcivita





Grotta La Fabbrica



Grotta La Fabbrica

PLOS ONE

RESEARCH ARTICLE

From Neanderthals to modern humans: New data on the Uluzzian

Paola Villa^{1,2,3}, Luca Pollarolo^{3,4}, Jacopo Conforti⁵, Fabrizio Marra⁶, Cristian Biagioni⁷, Ilaria Degano⁸, Jeannette J. Lučejko⁹, Carlo Tozzi⁸, Massimo Pennacchioni^{8,10}, Giovanni Zanchetta⁷, Cristiano Nicosia¹¹, Marco Martini¹², Emanuela Sibilla¹³, Laura Panzeri¹²

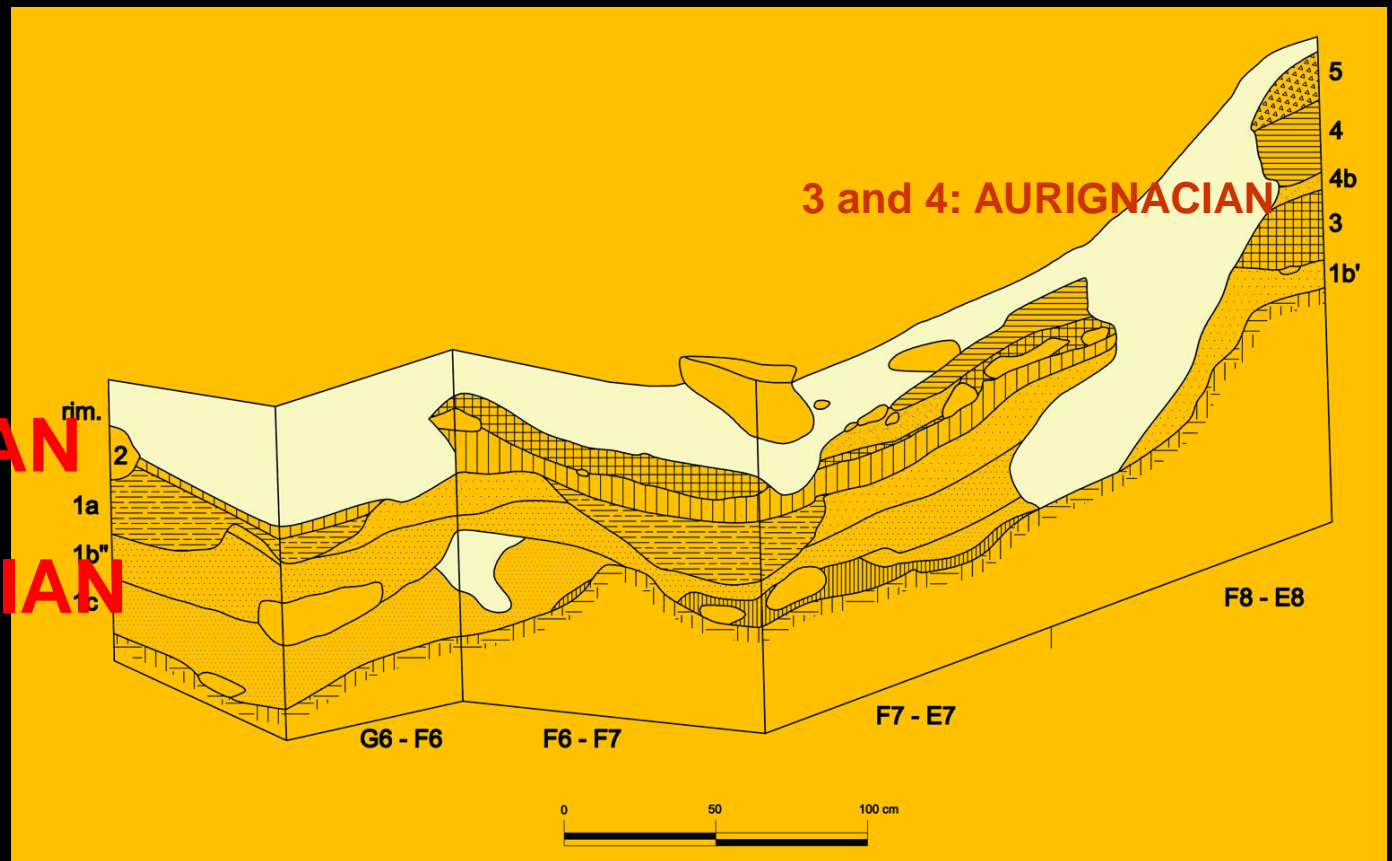


(40 ± 1.6 ka)

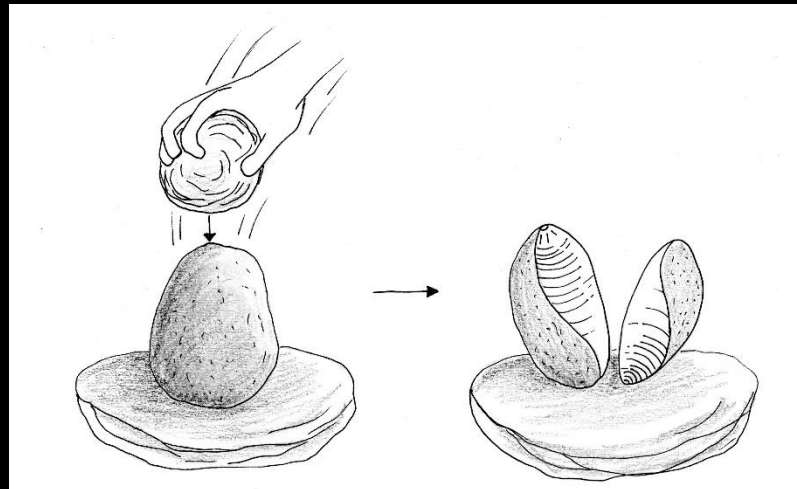
2: ULUZZIAN

1: MOUSTERIAN

(44 ± 2.1 ka)



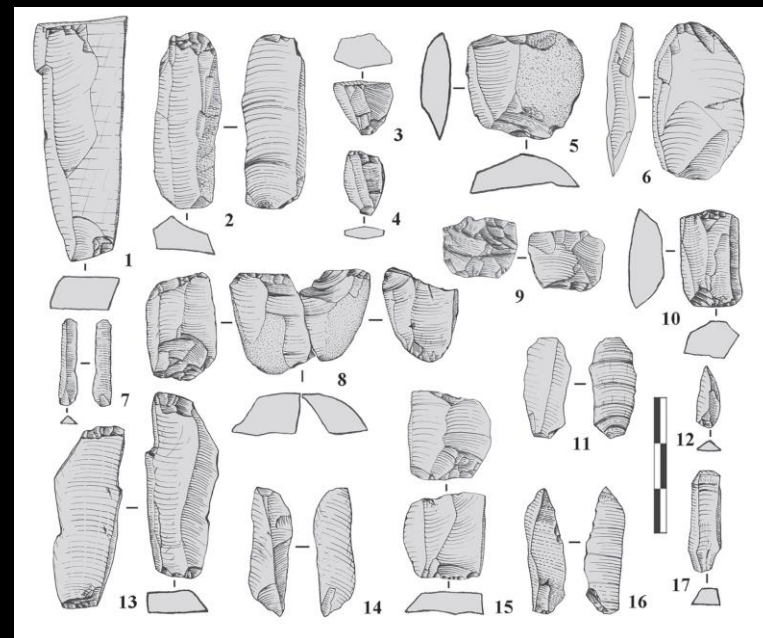
splintered pieces from Cavallo Cave



Grotta del Cavallo

Grotta del Cavallo (Apulia – Southern Italy). The Uluzzian in the mirror

LAYER EIII 1963-1964	N	%
Bipolar core	365	-
Bipolar blade-bladelet	74	-
Bipolar flake-flakelet	19	-
Tot. bipolar	458	67.0
Freehand core	33	-
Freehand blade-bladelet	28	-
Freehand flake	44	-
Tot. freehand	105	15.4
Indet. blade-bladelet	23	3.4
Indet. flake-flakelet	44	6.4
Total blade-bladelet	125	-
Total flake-flakelet	107	-
Other	53	7.7
Retouched artefact	106	-
Tot. debitage	683	-
Tot. retouched on lastrina	357	-
Indeterminate on lastrina	36	-
Tot. retouched on thermal flake	13	-
Total assemblage	1089	-

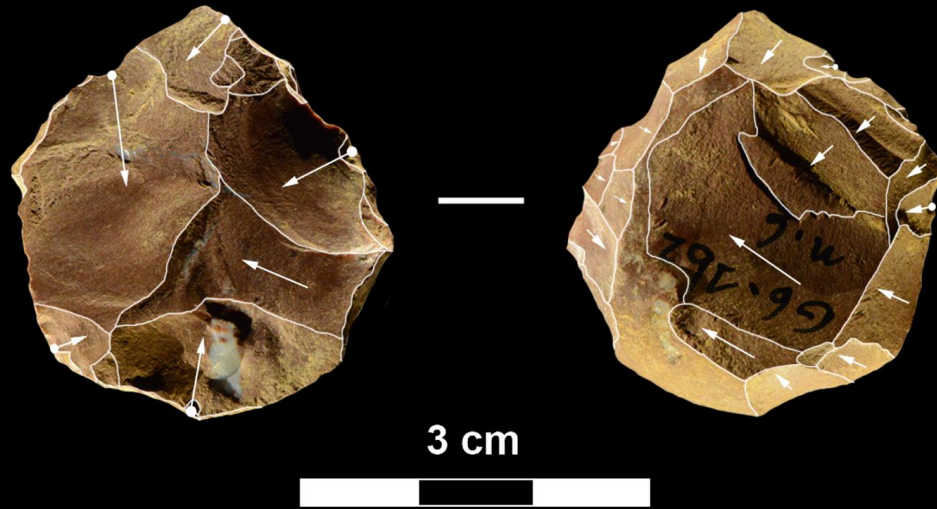


What Is a 'Transitional' Industry? The Uluzzian of Southern Italy as a Case Study

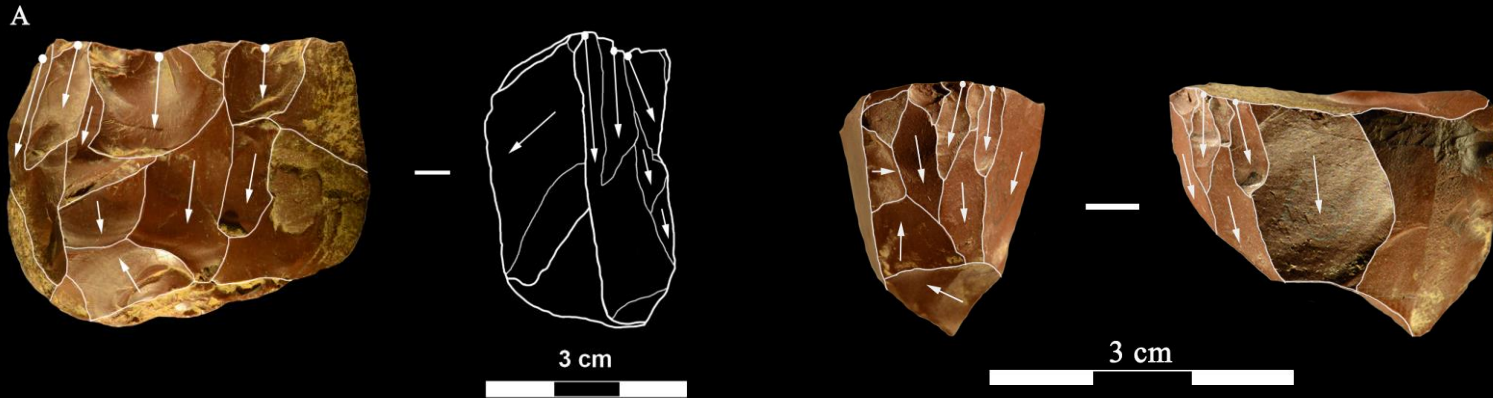
Julien Riel-Salvatore

Table 1 Typological characteristics of stratified Uluzzian assemblages in %

	<i>Castelcivita</i>				<i>Cavallo</i>			
	RSI	PIE	RPI	RSA	E III	E II-I	E-D	D
Burins	0.0	1.0	0.0	1.6	0.5	0.1	0.0	1.0
Endscrapers	20.0	3.9	2.9	3.4	16.1	2.8	1.6	4.6
Truncations	0.0	2.9	1.9	0.9	0.7	1.6	0.5	2.0
Percers	0.0	0.0	0.5	0.2	0.6	0.5	0.0	0.7
Backed points	0.0	2.9	0.5	1.1	0.6	2.6	4.9	1.0
Backed blades	0.0	0.0	1.0	1.1	1.2	3.1	2.2	3.0
Backed truncations	0.0	1.0	0.5	0.0	0.2	0.4	2.2	1.0
Geometrics	0.0	1.0	2.4	0.2	1.0	3.4	8.2	1.6
Retouched blades	5.0	1.9	0.5	1.6	1.0	1.7	7.1	5.9
Sidescrapers	10.0	28.2	14.3	13.6	33.9	8.0	13.7	14.8
Abruptly retouched pieces	0.0	1.0	1.9	2.5	0.6	1.6	2.7	2.3
Denticulates	30.0	21.4	19.0	24.0	8.4	4.7	9.3	31.9
Splintered pieces	35.0	35.0	54.8	49.8	35.1	69.4	47.5	30.3
N	20	103	210	442	986	762	183	304
Cores	6	4	31	35				
Debitage	85	192	926	1160	nd	nd	nd	nd



La Fabbrica, Mousterian, Layer 1



Uluzzian, Layer 2



Uluzzian, Layer 2, backed pieces



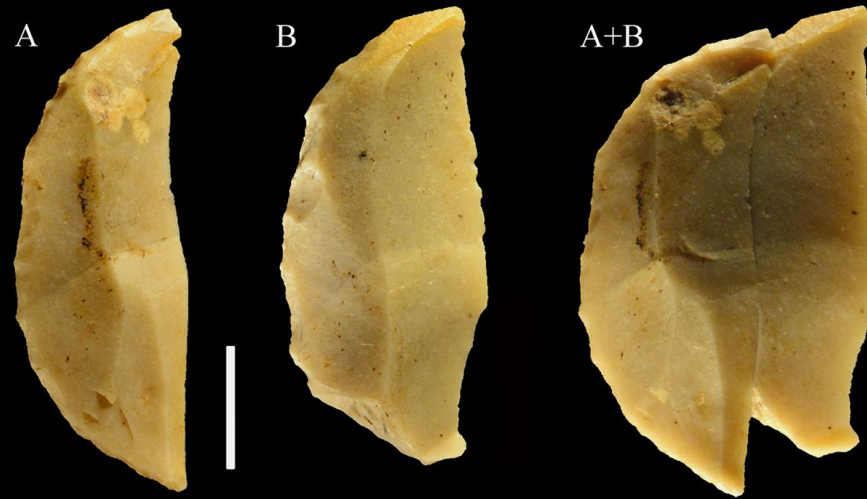
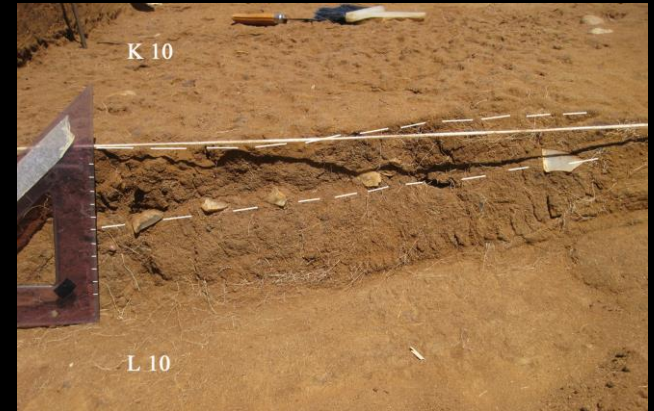
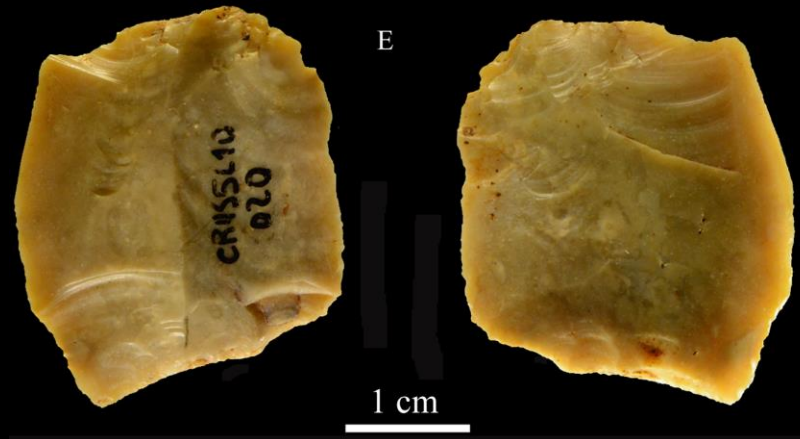
Bipolar cores/splintered/scaled pieces

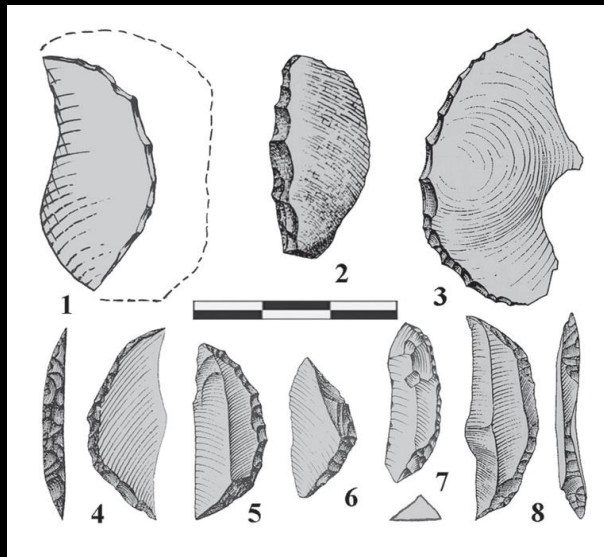
Colle Rotondo (Latium)

RESEARCH ARTICLE

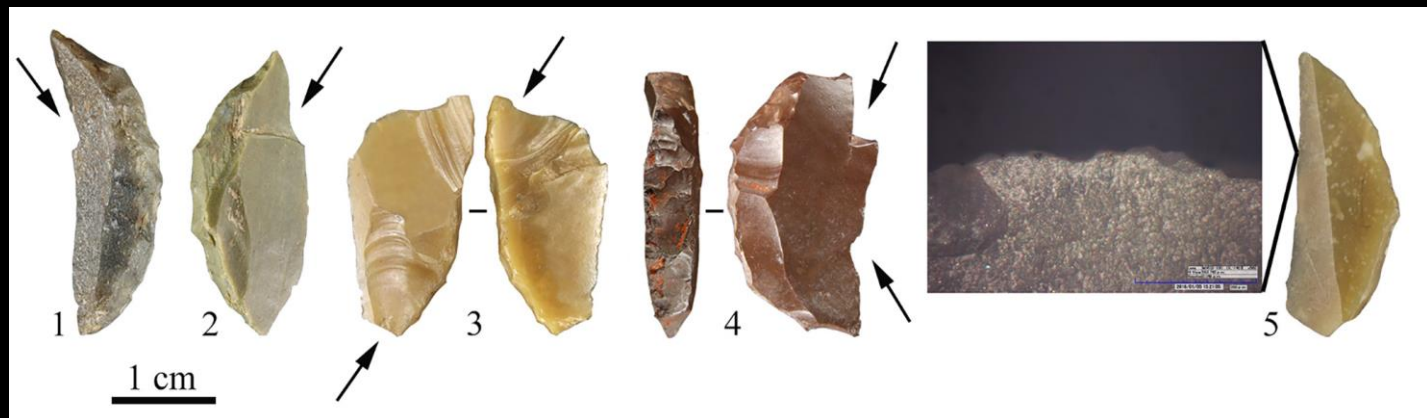
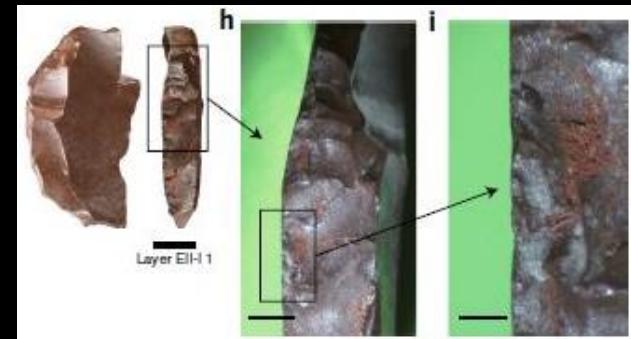
From Neandertals to modern humans: New data on the Uluzzian

Paola Villa^{1,2,3}, Luca Polster^{3,4}, Jacopo Corfari⁵, Fabrizio Merra⁶, Cristian Blagioni⁷,
Isera Degano⁸, Jeannette J. Lucejko⁹, Carlo Tozzi², Massimo Pennacchioni^{9,10},
Giovanni Zanchetta¹, Cristiano Nicolis¹¹, Marco Martini¹², Emanuela Sibilla¹²,
Laura Panzeri¹³





Grotta del Cavallo



Selection of backed pieces with impact scars and use-wear traces from Grotta del Cavallo.

Burin-like fracture (n. 1); flute-like fracture with step termination (n. 2); flute-like fracture and step terminating fracture (n. 3); burin like fracture and impact notch (n. 4); polishes localized on the un-retouched edge interpreted as due to scraping vegetal material (n. 5).

Grotta del Cavallo

Uluzzian bone technology and its implications for the origin of behavioural modernity

Francesco d'Errico^{a,b,*}, Valentina Borgia^c, Annamaria Ronchitelli^c



Fig. 5. 1, Cs: scraping marks (a – 50 \times) and post-depositional striations (b – 20 \times); 2, Cs2: apex (20 \times), and notches (40 \times); 3, Cs1: scraping (40 \times); 4, Cs3: apex (150 \times); 5, Cs4: scraping (50 \times); 6, Cs5: proximal and distal points (a, b – 20 \times) and use-wear (c – 50 \times).

Beads



Selection of shells from Grotta del Cavallo.
a *Antalis* sp. B *Tritia neritea*.