RABBIT ROLE IN PREHISTORIC HUMAN DIET:

A REVIEW FROM THE IBERIAN MEDITERRANEAN CENTRAL REGION

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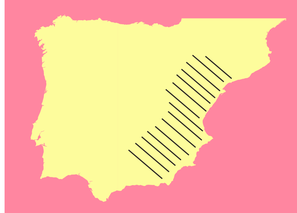
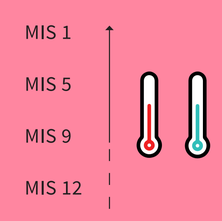
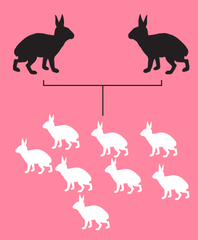
Oryctolagus cuniculus: WHY IS IT SO RELEVANT?

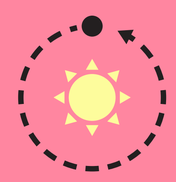






MEDITERRANEAN ABUNDANCE | CONTINUOUS PRESENCE | HIGH BIRTH RATE | PREDATORS

WHY IS IT SO USED?



DURING ALL THE YEAR | EASY CAPTURE | LOTS OF RESOURCES

WHY IS THIS WORK NECESSARY?

WHAT WE KNEW?

- Abundant NISP of rabbit bones in Mediterranean archaeological sites
- Old excavations and assemblages with integrity problems
- Few taphonomic studies

Iberian Mediterranean subsistence model:

-Generalist/opportunistic hunting in MP (horse, auroch, red deer, ibex, etc.)

-Low evidence of anthropogenic origin of rabbit assemblages in Middle Palaeolithic (MP)

-Specialized hunting based on one medium-sized prey (red deer or ibex) during Upper Palaeolithic (UP)

-High importance of rabbit in the human diets from the Early UP (Aurignacian)

-Filleting of rabbit meat in order to be preserved (deferred consumption) in UP

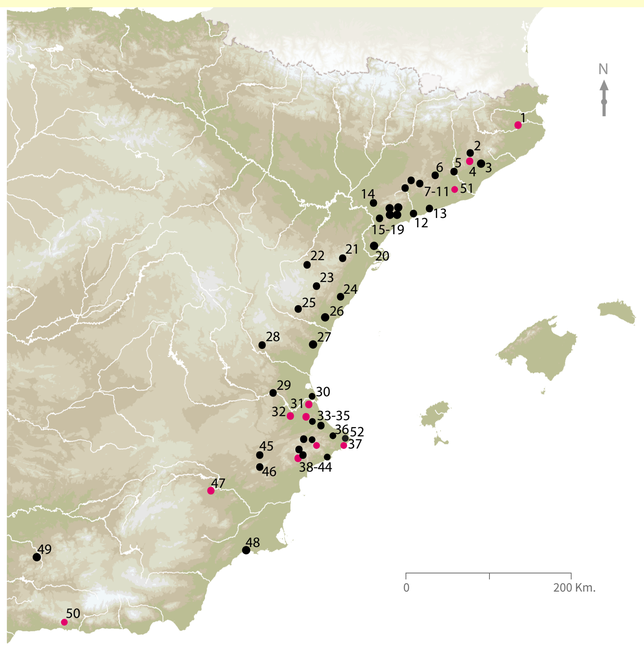
WHAT IS GOING ON NOW?

Revision and new samples from more accurate excavations technics

Methodological standarization of the archaeozoological studies

New taphonomic studies

Reformulation of the previous approaches



Archaeological site with rabbit presence in the Iberian Mediterranean region. Highlighted assemblage with taphonomic studies.

Middle Palaeolithic

1. Cova de l'Arbreda
4. Teixoneres
5. Abric Romaní
25. Tossal de la Font
28. Abrigo de la Quebrada
31. Cova Bolomor
32. Cova Negra
39. Cova Beneito
38. El Salt
38. Abric del Pastor
47. Cueva Antón

Upper Palaeolithic

1. Cova de l'Arbreda
3. Can Garriga
8. Font Voltada
7. Molí del Salt
11. Balma de la Vall
17. Abric dels Colls
18. L'Hort de la Boquera
16. Cova del Boix
19. Balma de l'Auferí
20. Mallada
26. Cova Matutano
27. Cova dels Blaus
30. Volcán del Faro
33. Cova de les Malladetes
34. Cova Parpalló
36. Cova del Comte
52. Cova Foradada
37. Cova de les Cendres
44. Cova de la Barriada
39. Cova Beneito
42. Tossal de la Roca
43. Coves de Santa Maira
48. Cueva Caballo
49. El Pirulejo
50. Cueva de Nerja
51. Terrasses de la Riera dels Canyars

Epipalaeolithic

2. Balma del Gai
10. Bolet
7. Molí del Salt
9. Guineu
14. Cova del Filador
13. La Griera
15. San Gregori
21. Clot de l'Hospital
23. Cova Fosca
24. Diablets
26. Cova Matutano
27. Cova dels Blaus
42. Tossal de la Roca
43. Coves de Santa Maira
50. Cueva de Nerja

Mesolithic

6. Abric Agut
7. Molí del Salt
14. Cova del Filador
12. La Cativera
22. Cingle del Mas Cremat
29. Cueva Cocina
35. El Collado
42. Tossal de la Roca
41. Benàmer
43. Coves de Santa Maira
40. Mas del Gelat
41. Cova de la Falguera
41. Penya del Comptador
45. Casa Corona
46. Lagrimal
50. Cueva de Nerja

SO...WHICH ARE OUR RESULTS ?

The NISP of rabbit in archaeological assemblages is relatively important (ca. 50%), but with sporadical presence in anthropogenic assemblages of MIS 9 (Bolomor XVIIC), MIS 6 (Bolomor XII, XI) and MIS 3 (Salt Xa). However, a more intense use has been identified in MIS 5e (Bolomor IV), probably linked to more concrete and repetitive human occupations. Neanderthals show the same capabilities as AMH to catch these small preys, but with a different management of faunal resources, being still abundant the rabbit bone assemblages of natural origin (raptors, small carnivores and natural deaths).

MIDDLE PALAEOLITHIC (MP)

Principal origin

Resources explotation

Processing tasks

At least from the Gravettian (Malladetes, Cendres), rabbit has an important presence (>80%) in the assemblages, mainly related to anthropogenic origin. The subsistence activities do not focus only on immediate consumption, but also on the preparation of skins and preservation activities (deferred consumption). This is a long-term strategy that continues during the Tardiglacial phases (Magdalenian and Epimagdalenian). In spite of resource diversification, due to the development and exploitation of the Mediterranean forest, the relative importance of the rabbit does not decrease.

UPPER PALAEOLITHIC (UP) / EPIPALAEOLITHIC

Principal origin

Resources explotation

Processing tasks

There is a breakage of this tendency, and the rabbit presence drops off markedly (30-40%). The complex sequence of Santa Maira shows a sudden change in the presence of rabbit between Epimagdalenian and Mesolithic without an erosive hiatus. This does not fit with the long-term tendencies to diversification and exploitation of the new forest. Instead, it could be related to all the deep changes that occur with the arrival of the Mesolithic (different technologies and territorial conceptions).

MESOLITHIC (M)

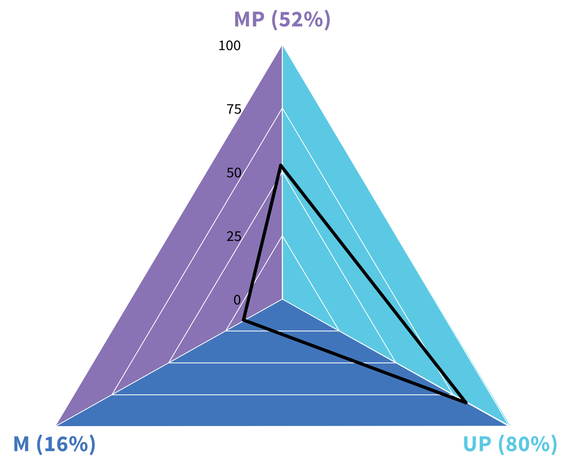
Principal origin

Resources explotation

Processing tasks

SITE	LEVEL	CRONOLOGY	CULTURE	DENSITY (bones/m3)	NISP	%NISP	MNI	cut marks	%NISP tooth anthropic marks	%NISP non anthropic marks	Complete long bones	Ratio diaph/epiph
Bolomor	XVIIC	MIS 9	Mousterian	356.7	428	58.7	10	3.7	1.6	7.2	0	41.9
	XII	MIS 6		45.0	135	19.1	10	4.5	0	0	-	-
	XI			87.3	262	47.2	7	10.7	4.2	0	0	76.6
	IV	MIS 5e		143.5	703	37.2	20	0.8	3.5	2.1	0	59.0
Salt	Xa	MIS 3	Mousterian	75.1	901	53.9	13	0.5	0	1.66	2	65.4
	V sup			64.7	437	94	5	0.7	0.23	3.89	1	91.7
Malladetes	East	MIS 3	Aurignacian	251.3	754	90.5	33	0.1	0	11.8	2	33.7
	West			5.7	119	21.8	16	0.8	0	13.5	1	66.7
Cendres	XVIa	MIS 2	Gravettian	10729.2	5150	88.6	80	7.2	-	0.04	6	39.4
	XIII		Solutrean	39320.0	1966	84.4	28	1.7	0.56	0	0	77.1
	XII			7866.7	2360	87.9	33	4.9	3.74	0	7	42.9
	XI		Magdalenian	18720.0	14976	90.8	337	8.8	2.69 *	0 *	36	47.0
	IX			10262.5	2463	90.9	60	7.2	2.9 * *	0 * *	7	61.1
Santa Maira	SM-5	MIS 2	Magdalenian	11880.0	588	83.9	11	31.1	4.59 *	0.00 *	3	56.7
	SM-4	MIS 1	Epipaleolithic	10595.0	8744	83.4	173	15.5	7.94	0.00	35	48.4
	SM-3		Mesolithic	268.0	279	31.3	10	9.00	17.20 * *	3.23 * *	0	33.3
Cocina	1941 (13 layers)	MIS 1	Mesolithic	6.7	177	11.3	57	4.5	- *	- *	-	-
	1942 (12 layers)	MIS 1	Mesolithic	3.2	143	5.7	52	6.2	-	-	-	-

* Calculated from a reduced sample



WHICH COULD BE THE influence FACTORS?

Probably the changes in the rabbit role in the human subsistence are not only due to prey availability, according to ecological or climatic variations. On the contrary, these could be as a result of different factors related to the human groups: more reduced mobility range, the characteristics of occupations (intensity, duration, recurrence), and/or the group size.

NEW FUTURE CHALLENGES

Improvement of taphonomic studies, generate new experiments, and obtain ethnographic references about rabbit use in subsistence activities (consumption, fur treatment, meat preservation tasks).

Valencian Government project *Más allá de la historia. Origen y consolidación del poblamiento paleolítico valenciano* (PROMETEOII/2013/016).
Spanish Government project *Paleolítico medio y superior en la vertiente mediterránea ibérica: Valencia y Murcia* (HAR2014-52671-P).
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Spanish Government project *Neandertales en la Montaña Alicantina. Un enfoque multianalítico* (HAR2015-68321-P)

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26-29 April FARO, PORTUGAL