

The Early to Middle Pleistocene Atapuerca caves and their Vertebrates

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ORAL PAPER SLIDES



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A landscape photograph showing a wide, grassy field in the foreground, transitioning into a golden-brown field in the middle ground. In the background, there is a large, forested hill or plateau under a blue sky with scattered white and grey clouds. The overall scene is bright and open.

The Early to Middle Pleistocene Atapuerca Caves and their Vertebrates

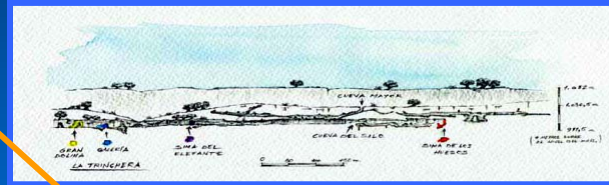
Gloria Cuenca Bescós and Juan Rofes

Atapuerca

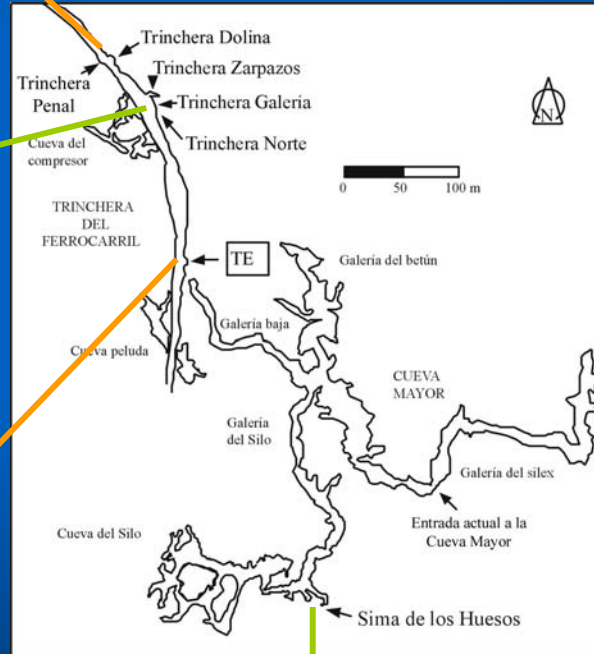
patrimonio de la humanidad



Gran Dolina



Galería



Sima de los Huesos

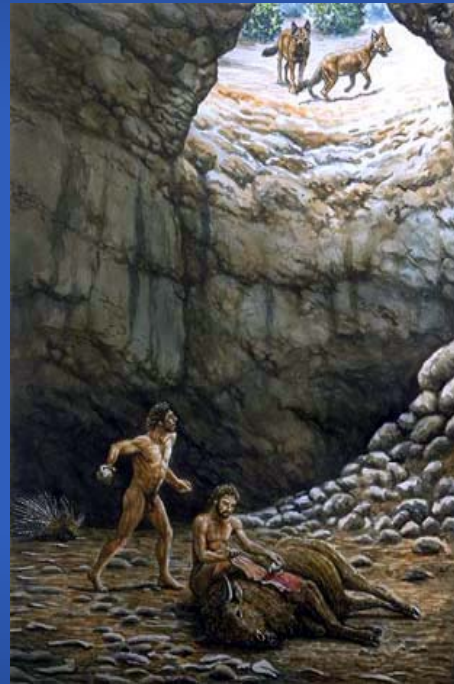


Sima del Elefante

LARGE MAMMAL BONE ACCUMULATIONS

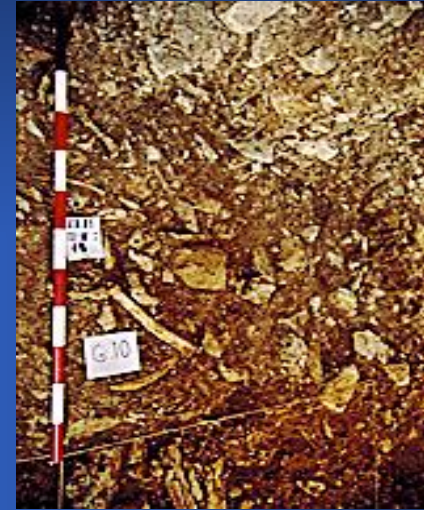


Animal Behavior +



Homo Behavior

=



*Hyena
GD*



*Lion
G*



*Mammoth
tooth GD*



Bear SH



*Horse foot
GD*

*Homo
antecessor
GD*



*Homo
heidelbergensis
SH*



SMALL VERTEBRATE BONE ACCUMULATIONS



Birds of Prey Behavior

=





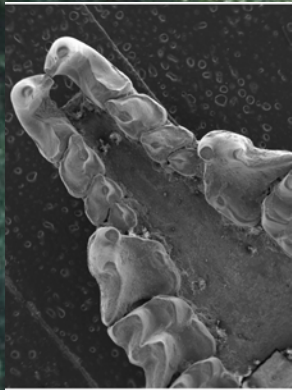
Washing-screening and sampling field lab next to the Arlanzon River



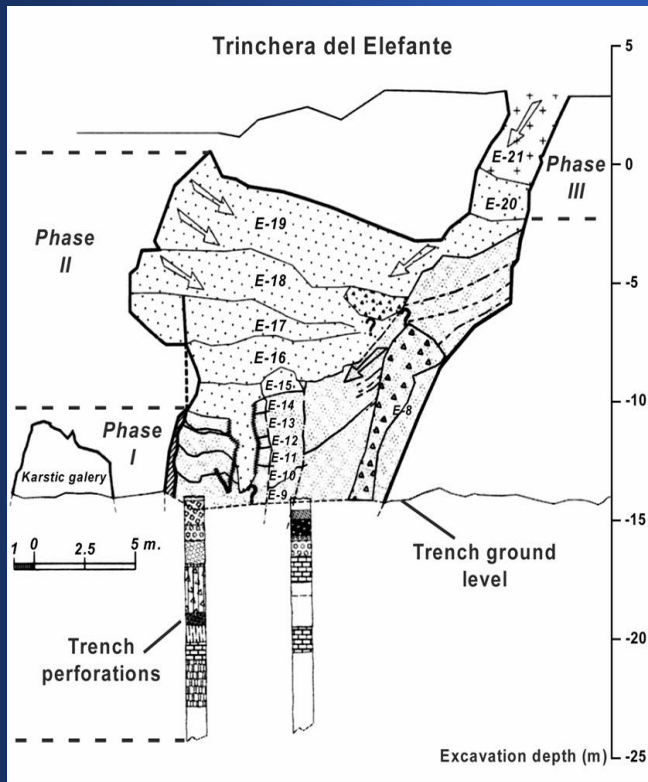
Small vertebrate samples

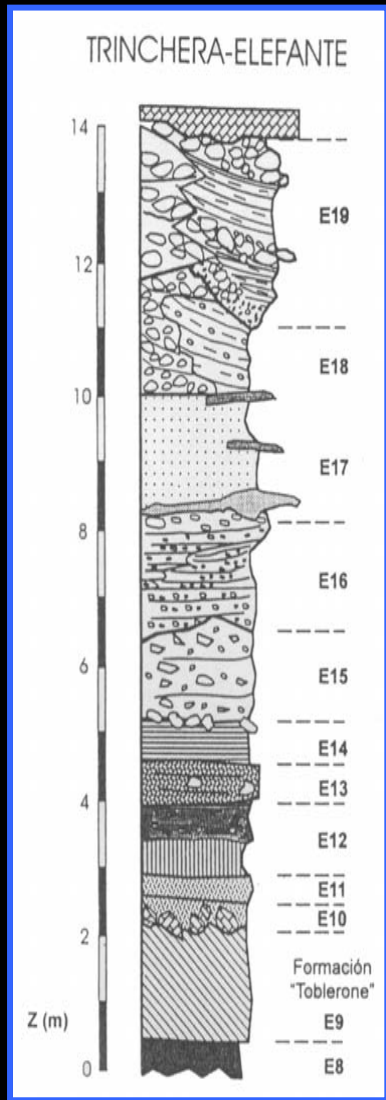


Analysis and research at Universidad de Zaragoza



SIMA DEL ELEFANTE





Crocuta crocuta



Stephanorhinus hemitoechus



TE15-19

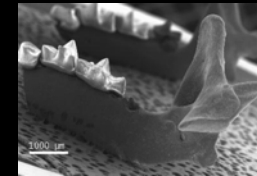
FU 6

FAD: *Homo heidelbergensis*, *Ursus deningeri*, *Stephanorhinus hemitoechus*, *Arvicola cantianus*

Ursus dolinensis



Asoriculus gibberodon



TE9-14

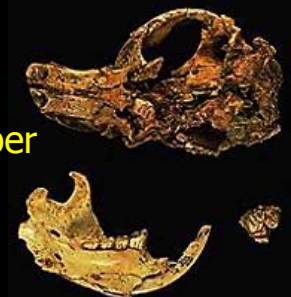
FU 1

FAD & LAD: 3 *Allophaiomys* spp, *Castillomys*, *Asoriculus*.

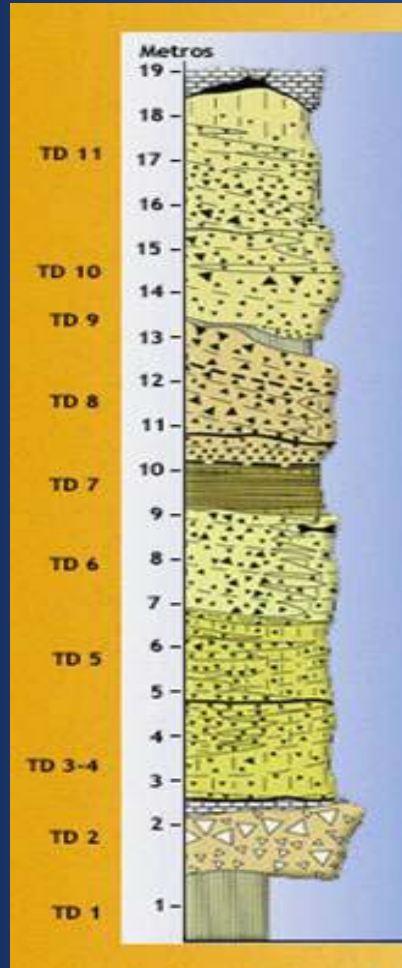
Beremendia fissidens

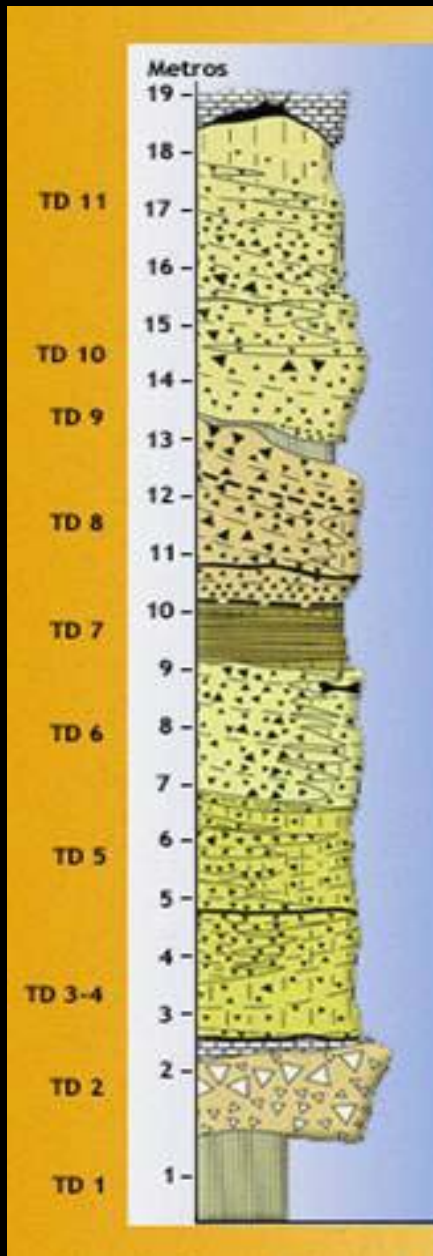


Castor fiber



GRAN DOLINA





FU 6
TD8b-11

FAD: *Homo heidelbergensis*, *Ursus deningeri*,
Stephanorhinus hemitoechus, *Arvicola*
cantianus

FU 5
TD7-8a

FAD: *Microtus ratticepoides*
LAD: *Beremendia*, *Mimomys savini*

FU 4
TD 6b

FAD & LAD: *Homo antecessor*.

FU 3
TD5-6a

FAD: *Sus scrofa*, *Homotherium*

FU 2
TD3-4

FAD: *Iberomys huescarensis*, *Allocricetus*,
Crocota.

Crocota crocuta
TD-3, FU 2



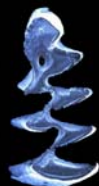
Panthera gombaszoegensis
TD-4, FU2



Mammuthus sp.
TD-6, FU 3



Mimomys savini
TD-6, FU 4



Soricine indet.
TD-6, FU 4



Homo antecessor
TD-6, FU 4



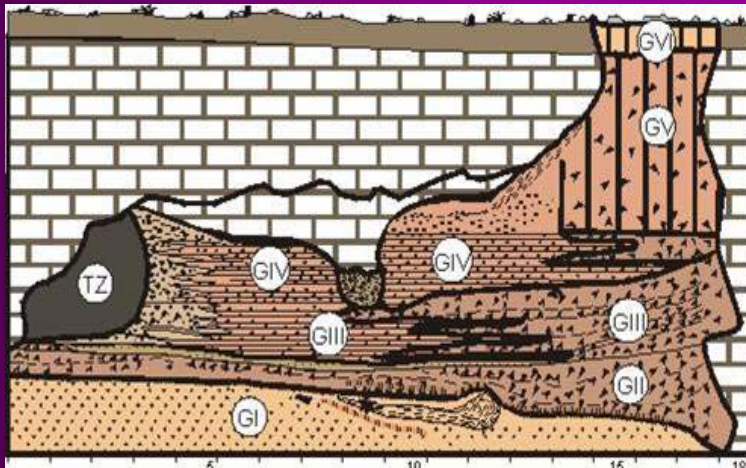
Equus altidens
TD-8, FU 5

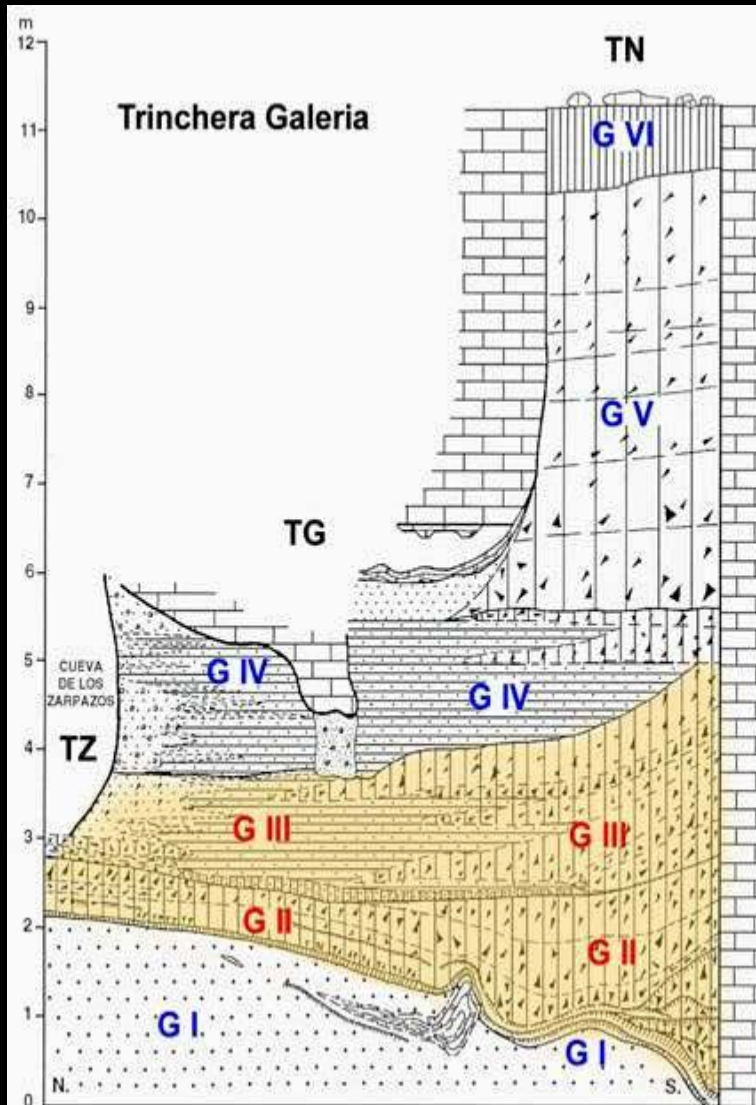


Cervus elaphus
TD-10, FU 6



GALERIA





Dama vallonetensis



Panthera leo



G II-III
TZ

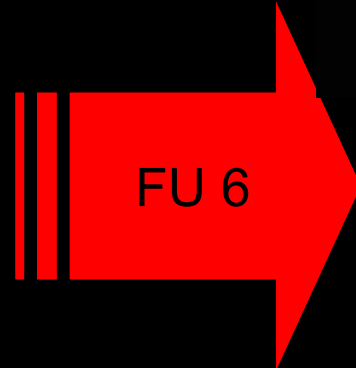
FU 6

FAD: Homo heidelbergensis,
Ursus deningeri,
Stephanorhinus
hemitoechus, Arvicola
cantianus

SIMA DE LOS HUESOS



Homo heidelbergensis



FAD: Homo heidelbergensis, Ursus deningeri, Stephanorhinus hemitoechus, Arvicola cantianus

Tiny Ear bones





Panthera leo



Lynx pardina



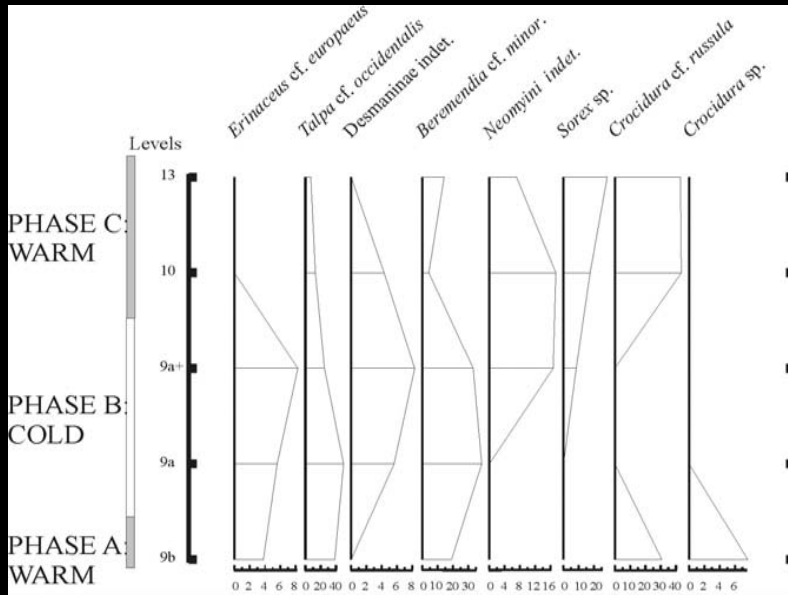
Ursus deningeri



Mustelid



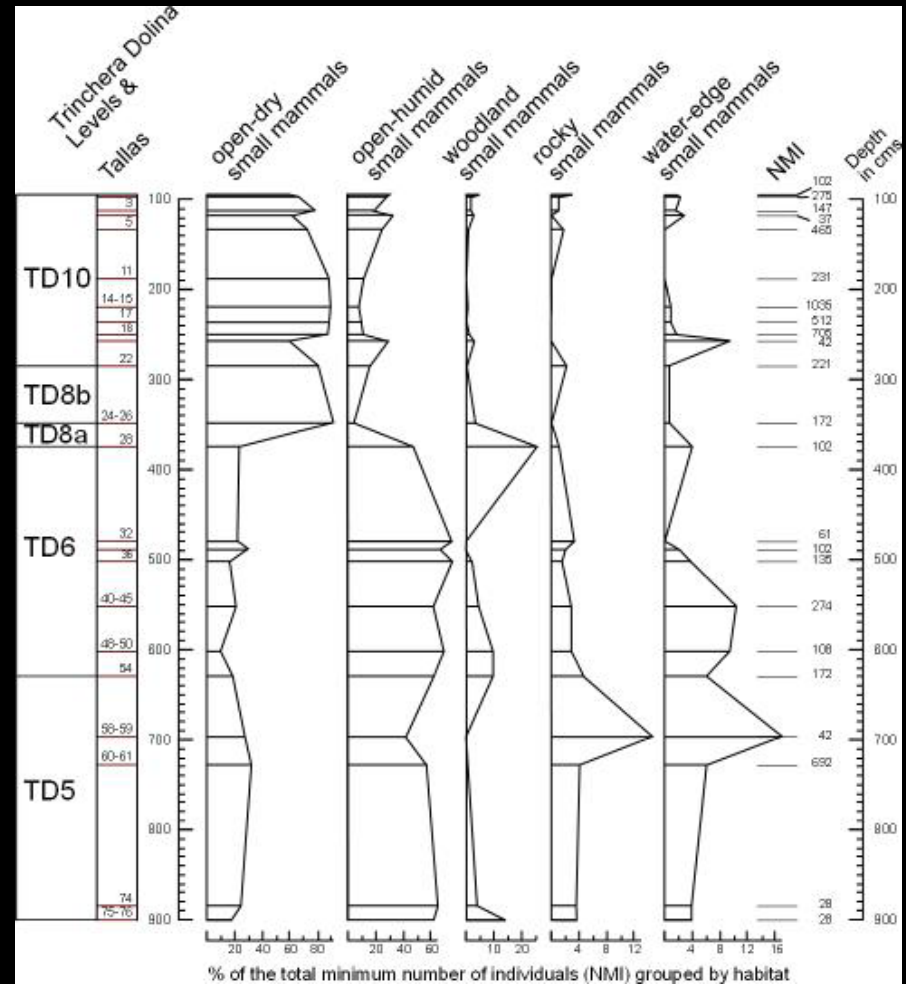
Palaeoclimatic reconstruction of the Early Pleistocene of Atapuerca (before 1 Ma)



Based on the Insectivora assemblage of the lower levels of Sima del Elefante

Palaeoenvironmental Reconstructions

Palaeoenvironmental reconstruction of the Early to Middle Pleistocene of Atapuerca (after 1 Ma)



Based on the Mammalian assemblage of the stratigraphic sequence of Gran Dolina

Early Pleistocene – Faunal Unit 4





Early Pleistocene – Faunal Unit 4

Middle Pleistocene – Faunal Unit 6



LITHIC TOOLS



Chopper TD-6



Flake TD-6



MODE 1

Flint Core TD-6



*Large Flint
Flake TG*

MODE 2



*Quartzite Point
TG*

*Quartzite
Point
TD-10*



MODE 3



*Cutting
Tool TD-10*

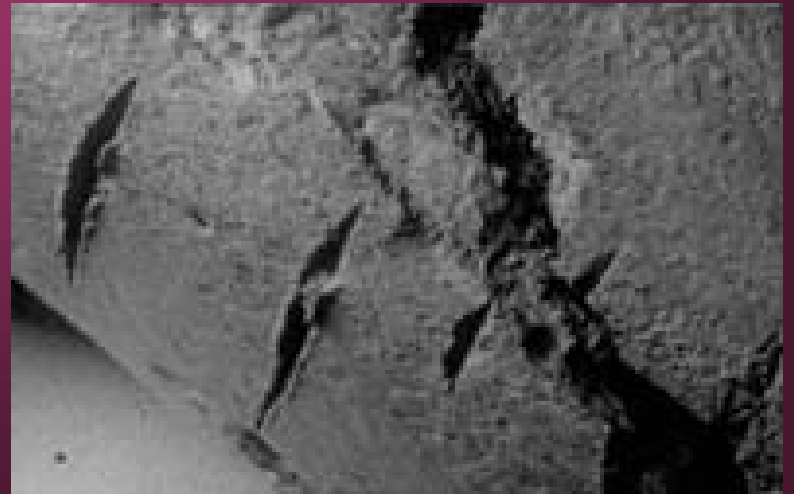
Homo antecessor

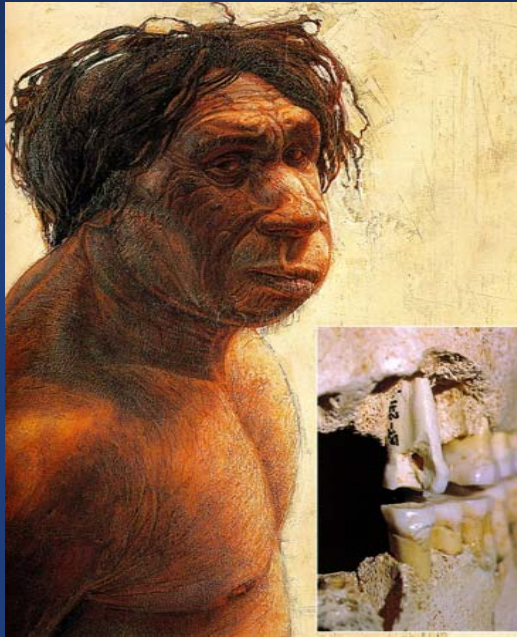


Gran Dolina Boy



Canibalism





Hunting and scavenging



Homo heidelbergensis



Burial



A 3D rendered scene of a forest stream. In the center, a large rhinoceros is drinking from the water. To its left, a hippopotamus stands on the bank with its mouth open. Several spotted deer are scattered around the stream, some looking towards the camera. The background is a lush forest with trees showing autumn foliage. The text "THANK YOU VERY MUCH!!" is overlaid in the center in a 3D, blocky font with green sides and white tops.

**THANK YOU
VERY MUCH!!**