



Contents lists available at ScienceDirect

## Quaternary International

journal homepage: [www.elsevier.com/locate/quaint](http://www.elsevier.com/locate/quaint)

## The Lower Palaeolithic site Alto de las Picarazas (Andilla-Chelva, Valencia)



M. Vicente Gabarda <sup>a</sup>, R. Martínez Valle <sup>b</sup>, P.M. Guillem Calatayud <sup>c,\*</sup>, P. Garay Martí <sup>d</sup>,  
E. Pueyo <sup>e</sup>, J. Casabó <sup>f</sup>

<sup>a</sup> C/ Padre Huerfanos 7, pta 6, Valencia 46003, Spain

<sup>b</sup> Área de Arqueología y Paleontología, IVCR, CulurArts Generalitat, Genaro Lahuerta 25, 46010 Valencia, Spain

<sup>c</sup> Área de Arqueología y Paleontología, IVCR, CulurArts Generalitat, Genaro Lahuerta 25, 46010 Valencia, Spain

<sup>d</sup> Servici teritorial de Medi Ambient, Conselleria d'Infraestructures, Territori i Medi Ambient, C/ Gregorio Gea 27 (Prop 1), 546009 Valencia, Spain

<sup>e</sup> Instituto Geológico y Minero de España (IGME), Unidad de Zaragoza, Manuel Lasala 44, 50006 Zaragoza, Spain

<sup>f</sup> Museu de la Valltorta, Pla de l'Om s, 12179 Tirig, Castelló, Spain

### ARTICLE INFO

#### Article history:

Available online 6 June 2015

#### Keywords:

Lower Paleolithic  
Lower Pleistocene  
Middle Pleistocene  
Mammal bones  
Human presence

### ABSTRACT

This paper describes the Alto de las Picarazas site (Andilla-Chelva, Valencia) which is made up of a group of karst cavities that contains Lower and Middle Pleistocene deposits. In Cavity I, a wide Early Pleistocene sequence under a Middle Pleistocene deposit has been preserved. In Stratum IV, evidence of human presence, such as lithic industry and mammal bones with butchery marks, has been found. Remains of *Allophaiomys ruffoi* and *Soergelia minor* in this stratum give the site a Early Pleistocene chronology.

© 2015 Elsevier Ltd and INQUA. All rights reserved.

### 1. Introduction

Human presence in the Iberian Peninsula over 1 Ma has been identified in the Orce sites: Barranco León-5 and Fuente Nueva-3 (Martínez Navarro et al., 1997; Palmqvist et al., 2005), and in Atapuerca (Aguirre, 1996; Arsuaga et al., 1997; Rosas et al., 2001, 2004; Bermúdez de Castro et al., 2004; Parés et al., 2006; Huguet, 2007). In Barranco León 5, abundant industrial remains, fauna and a deciduous human (*Homo* sp.) molar, the oldest human remain in Europe (Martínez-Navarro et al., 2013), have been found.

The two other sites, Fuente Nueva 3 and the lowest Sima del Elefante (TE9-14) unit, correspond to a slightly later period. Biochronology and ESR dating assign the three sites to a 1.4 to 1.2 Ma chronology (Duval et al., 2011).

Sites from a slightly later period are Vallparadís (Terrasa, Barcelona) and Barranc de la Boella (La Canonja, Tarragona), in the Mediterranean region of the Iberian Peninsula. Biostratigraphic and magnetostratigraphic dating have located the former between a

pre-Jaramillo Bihariensis phase and the beginning of Toringiano, less than 0.6 Ma (Madurell-Malapeira et al., 2010; Martínez et al., 2010; García et al., 2011; Minwer-Barakat et al., 2011). In Barranc de la Boella, human presence has been found throughout the late Early Pleistocene, and radiometric dates for the stratigraphic unit II include a period that covers from 0.8760.08 Ma (LM-1-R) to 1.0760.07 Ma (Vallverdú et al., 2014).

Further south, in the Valencian region, two more sites, assigned to the same chronological interval, are located: La Muntanyeta dels Sants (Sueca, Valencia) and La Cova del Llentiscle (Vilamarxant, Valencia). In La Muntanyeta del Sants postvillafranquensis macrofauna and Early Pleistocene micromammals have been found. Associated with this fauna, there is a human bone that is currently missing and documented only through a photograph (Burguera, 1921; Sarrió, 1984). In La Cova del Llentiscle (Vilamarxant, Valencia) Early Pleistocene animal species and a small assemblage of human remains (*Homo* sp.), some with butchery marks of anthropic origin, have been documented (Sarrió, 1984, 2008).

El Alto de las Picarazas is the latest addition to this rather short list of sites with human presence dating from more than 1 Ma. The site was discovered by chance during the construction of the Peñas de Dios Wind Farm, in 2007. While digging in the rock for the installation of a base for a wind turbine, a cleft filled with clay sediments, limestone rocks and bone remains was discovered. In

\* Corresponding author.

E-mail addresses: [mvicentega@yahoo.es](mailto:mvicentega@yahoo.es) (M. Vicente Gabarda), [martinez\\_rafval@gva.es](mailto:martinez_rafval@gva.es) (R. Martínez Valle), [guillem\\_per@gva.es](mailto:guillem_per@gva.es) (P.M. Guillem Calatayud), [garay\\_pol@gva.es](mailto:garay_pol@gva.es) (P. Garay Martí), [unaim@igme.es](mailto:unaim@igme.es) (E. Pueyo), [casabo\\_jos@gva.es](mailto:casabo_jos@gva.es) (J. Casabó).

2008 and 2009, emergency excavations recovered an important amount of bone remains and some industry remains, and a large sedimentary deposit was also identified.

Within this cavity, a wide Early Pleistocene sequence sealed by a Middle Pleistocene deposit has been identified (Guillem et al., 2013). This paper includes biostratigraphic data from stratum IV that corresponds to a late moment of the Early Pleistocene with evidence of human presence. The biostratigraphic dating suggests that this human presence could coincide with the *Allophaiomys pliocaenicus* biozone.

## 2. Location and description of the site

Alto de las Picarazas is located on the southeast extreme of Javalambre Range, at 1100 m above sea level, in an inland area of the Valencia province. The site is located on the slope of a round hill limited to the north by Barranco de la Hoya Redonda, and to the south by Fosa de Higuieruelas (Fig. 1). The adjacent geological materials are microcrystalline oncoclitic limestone, sometimes with intraclasts from the Upper Jurassic (Kimmeridgian), that are found in a bank of 200 m thickness that rests on clayish limestone and shale.

The site is formed by a number of fractures and filled clefts exposed near the top of the hill on the southwest slope, with NW/SE orientation (Fig. 2). These fissures originate from tectonic distensive movements from the late Pleistocene and the shifting of limestone banks on the shale base. In these fractures of the rock, different karst phases, prior to the filling of the cavity, followed during the early stages of the Early Pleistocene (Garay, 2013).

A mechanical exploration and three geoelectric profiles carried out in 2009 revealed that these fissures are between 10 and 15 m

deep in relation to the current level of the terrain, and that they have both karst infill breccias and speleothems, and unsealed cavities.

Current archaeological work has focused on Cavity 1; a fissure that is 50 m long by an average width of 2 m at the top of the hill, that widens as it descends towards the hill base (Fig. 3). The infill, from the top to the bottom, includes an ample sequence made up of the following stratigraphic units (Ruiz, 2008):

Stratum I: Vegetation soil

Stratum II: Rendzina horizon that is in contact with the rock and fills micro fissures. Holocene.

Stratum III: Horizon of carbonates accumulation with dusty whitish crusts and development of calcisols on orange clays. It is sealed by a subhorizontal laminar crust of a wavy surface that shows a marked discontinuity with the previous horizon. Middle Pleistocene.

Stratum IV: A brecciated clay. It includes a brecciated level of angular clasts of decimetric dimensions and a red clay matrix (Level IVa), followed by an argillic horizon with abundant bone content (Level IVb). Early Pleistocene.

Excavation work in extension of the base levels that correspond to stratum IVb has been carried out in a 10 m<sup>2</sup> area.

## 3. Paleomagnetism

Fifteen paleomagnetic pilot samples have been tested in the Picarazas fossil locality. Twelve were taken from the northern outcrop of the trench and 3 from the southern one (Fig. 4). Due to the nature of the karst infilling, special sampling and consolidation



Fig. 1. A. Location of the site in the Iberian Peninsula and other sites mentioned in this paper: 1. Alto de las Picarazas, 2. Barranco León y Fuente Nueva, 3. Sima del Elefante, Atapuerca, 4. Valparadís. 5. Barranc de la Boella. B. Location of sites the Valencian Autonomous Community. C: View of the local landscape and the cavity (D). E: Excavations.

Download English Version:

<https://daneshyari.com/en/article/1040328>

Download Persian Version:

<https://daneshyari.com/article/1040328>

[Daneshyari.com](https://daneshyari.com)