



ELSEVIER

Contents lists available at ScienceDirect

Comptes Rendus Palevol

www.sciencedirect.com



Human Palaeontology and Prehistory (Prehistoric Archaeology)

Short-term Neandertal occupations in the late Middle Pleistocene of Arlanpe (Lemoa, northern Iberian Peninsula)

*Occupations à court terme de groupes de Néandertaliens à la fin du Pléistocène moyen d'Arlanpe (Lemoa, Nord de la péninsule Ibérique)*

Joseba Rios-Garaizar^{a,*}, Diego Garate Maidagan^b, Asier Gómez-Olivencia^{c,d,e,f}, Eneko Iriarte^g, Diego Arceredillo-Alonso^h, María José Iriarte-Chiapusso^{e,i}, Naroa Garcia-Ibaibarriaga^{f,i}, Alejandro García-Moreno^{j,k}, Igor Gutierrez-Zugasti^k, Trinidad Torres^l, Arantza Aranburu^m, Martin Arriolabengoa^m, Salvador Bailónⁿ, Xabier Murelaga^f, Amaia Ordiales^f, José Eugenio Ortiz^l, Juan Rofes^o, Ziortza San Pedro^p

^a Centro Nacional de Investigación sobre la Evolución Humana (CENIEH), 09002 Burgos, Spain

^b Arkeologi Museoa - Museo Arqueológico de Bizkaia, 48006 Bilbao, France

^c Équipe de paléontologie humaine, CNRS, UMR 7194, département de préhistoire du Muséum national d'histoire naturelle, 75005 Paris, France

^d Centro UCM-ISCIII de Investigación sobre Evolución y Comportamiento Humanos, 28029 Madrid, Spain

^e IKERBASQUE, Basque Foundation for Science, 48011 Bilbao, Spain

^f Departamento Estratigrafía y Paleontología, Universidad del País Vasco UPV/EHU, 48940 Leioa, Spain

^g Laboratorio de Evolución Humana, Departamento de Ciencias Históricas y Geografía, Universidad de Burgos, 09001 Burgos, Spain

^h Laboratorio de Prehistoria, Departamento de Ciencias Históricas y Geografía, Universidad de Burgos, 09001 Burgos, Spain

ⁱ Departamento Geografía, Prehistoria y Arqueología, Universidad del País Vasco UPV/EHU, 01006 Vitoria-Gasteiz, Spain

^j Monrepos Archäologisches Forschungszentrum und Museum für menschliche Verhaltensevolution RGZM, 56567 Neuwied, Germany

^k Instituto Internacional de Investigaciones Prehistóricas de Cantabria (IIIPC), 39005 Santander, Spain

^l Laboratorio de Estratigrafía Biomolecular, Escuela Técnica Superior de Ingenieros de Minas, 28003 Madrid, Spain

^m Departamento Mineralogía y Petrología, Universidad del País Vasco UPV/EHU, 48940 Leioa, Spain

ⁿ UMR 7209 – UMR 7149, CNRS Département Écologie et Gestion de la Biodiversité (EGB), MNHN, 75005 Paris, France

^o UMR 7209, CNRS, « Archéozoologie, archéobotanique » MNHN CP56, 75005 Paris, France

^p Museo Vasco, 48006 Bilbao, Spain

ARTICLE INFO

Article history:

Received 22 September 2014

Accepted after revision 26 November 2014

Available online 21 March 2015

Handled by Marcel Otte

Keywords:

Early Middle Paleolithic

ABSTRACT

The end of the Middle Pleistocene is an interesting period for investigating the transformation of Neandertal behavior from the early Middle Paleolithic to the late Middle Paleolithic. Few sites in the Iberian Peninsula have sequences corresponding to the last interglacial (MIS5) and even fewer in the Cantabrian Region. One of the best places to investigate this subject is the sequence recently excavated in Arlanpe cave. Several proxies (sedimentology, pollen, small vertebrates, malacofauna, U/Th dating) locate the first phases of this sequence between MIS7 and MIS5, with the important occurrence of temperate environmental evidence. The archaeological record describes populations with high mobility that used the cave as an occasional shelter in the first phases, or as an activity area in the later ones. The

* Corresponding author.

E-mail address: joseba.rios@cenieh.es (J. Rios-Garaizar).

Interglacial
Lithic Technology
Levallois
Biface
Mobility

characteristics of lithic productions show a combination of Lower (Acheulean bifacial shaping) and Middle Paleolithic (Levallois Technology) traits that justifies an early Middle Paleolithic attribution.

© 2015 Académie des sciences. Published by Elsevier Masson SAS. All rights reserved.

R É S U M É

Mots clés :
Paléolithique moyen ancien
Interglaciaire
Technique lithique
Levallois
Biface
Mobilité

La fin du Pléistocène moyen est une période intéressante pour la recherche de la transformation du comportement de l'homme de Néandertal depuis le début jusqu'à la fin du Paléolithique moyen. Quelques sites de la péninsule Ibérique ont des séquences correspondant au dernier Interglaciaire (MIS5) et aussi, mais moins nombreuses, dans la région cantabrique. L'un des endroits le plus favorable pour ce type d'étude est la séquence récemment mise à jour dans la grotte d'Arlanpe. Différentes approches (sédimentologie, pollen, petits vertébrés, malacofaune, datation U/Th) placent les premières phases de cette séquence entre MIS7 et MIS5, avec l'important évidence d'un environnement tempéré. Le registre archéologique décrit des populations à mobilité élevée, qui utilisaient la grotte comme abri occasionnel dans les premières phases ou comme zone d'activité dans les dernières. Les caractéristiques des productions lithiques montrent une combinaison de traits du Paléolithique inférieur (façonnement biface acheuléen) et moyen (technique Levallois) qui justifient l'attribution au Paléolithique moyen ancien.

© 2015 Académie des sciences. Publié par Elsevier Masson SAS. Tous droits réservés.

1. Introduction

The end of the Middle Pleistocene, which developed simultaneously with the temperate pulse at the Eemian (MIS5e), is poorly known in the archaeological and paleontological record from the Iberian Peninsula. This situation is extensible to the record of the western Pyrenean region, where only a few sites offer complete information about human behavior, climate, flora and fauna (Arrizabalaga and Rios-Garaizar, 2012). In this area the archaeological record of the late Middle Pleistocene shows some transitional features, such as the concurrence of Lower Paleolithic (LP) bifacial tradition with Early Middle Paleolithic (EMP) Levallois technology, which can be very informative about the process of technological evolution and regional adaptations of Middle Pleistocene Neandertals.

The excavations carried out between 2006 and 2011 in Arlanpe cave discovered an interesting sequence with Middle Pleistocene to Holocene occupations. The detailed results of this investigations were recently published in a monograph including geoarchaeology, territorial analysis, pollen, small vertebrates, macrofauna, marine and terrestrial mollusks, AAR dating, bone industry, lithic industry and portable art analyses (Rios-Garaizar et al., 2013a). The main objective of this paper is to synthesize the study of environmental and archaeological data recovered in the late Middle Pleistocene levels (MIS7-5), in order to provide additional data about the evolution of Neandertals in the Iberian Peninsula.

2. Geographical setting

The North of the Iberian Peninsula is characterized by an almost continuous mountain chain, the Cantabrian Range,

which runs parallel to the coast, leaving a short strip of land between the sea and the mountains, usually called the Cantabrian Region. This area concentrates a high density of Middle and Upper Paleolithic sites, most of which are cave sites, due to the abundance of limestone formations. The easternmost part of the Cantabrian Region and the westernmost part of the Pyrenees has functioned as a natural communication route between the Iberian Peninsula and the rest of the European continent (Arrizabalaga and Rios-Garaizar, 2012). This area is characterized by a large geographic diversity that includes a rough landscape, with low altitude mountains and hills and short valleys running almost perpendicular to the coast (Fig. 1: A). Three main valleys connect, through low altitude mountain passes (<600 m.a.s.l.), this area with the Alavese Plateau and the Upper Ebro Valley, situated to the south. Close to and in both sides of these mountain passes several sites with long Middle Paleolithic sequences are known. The most important ones are Arrillor, Axlor and Lezetxiki, but other sites, which have not been fully excavated such as Askondo, are also present.

Arlanpe cave is situated in the Arratia Valley close to its confluence with the Ibaizabal River. Potential visibility analysis shows that, from Arlanpe, the confluence of Arratia and Ibaizabal can be easily controlled (Fig. 1: B). The modeling of the accumulated movement cost from the cave established an immediate territory (less than two hours) with access to the bottom of the valley and to the aforementioned rivers, as well as the Nervión River (Fig. 1: C).

3. Site description

Arlanpe is a small cave that opens in the northeastern face of an Albian limestone crag. The cave was subdivided into three main excavation sectors, the Entrance, Central

Download English Version:

<https://daneshyari.com/en/article/4745736>

Download Persian Version:

<https://daneshyari.com/article/4745736>

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