

# To the West of Spanish Cantabria

The Palaeolithic Settlement of Galicia

Edited by

A. de Lombera Hermida

R. Fábregas Valcarce

BAR International Series 2283

2011

Published by

Archaeopress  
Publishers of British Archaeological Reports  
Gordon House  
276 Banbury Road  
Oxford OX2 7ED  
England  
bar@archaeopress.com  
www.archaeopress.com

BAR S2283

*To the West of Spanish Cantabria: the Palaeolithic Settlement of Galicia*

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ISBN 978 1 4073 0860 9

Printed in England by Blenheim Colour Ltd

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# CHAPTER 11: THE UPPER PLEISTOCENE SITE OF COVA EIRÓS (TRIACASTELA, LUGO, GALICIA)

*Xose Pedro Rodríguez Álvarez*

*IPHES, Institut Català de Paleoecologia Humana i Evolució Social,  
Escorxador s/n, Tarragona 43003, Spain*

*Area de Prehistoria, Universitat Rovira i Virgili,  
Av. Catalunya 35, Tarragona 43002, Spain  
Email: xprodriguez@iphes.cat*

*Arturo de Lombera-Hermida*

*IPHES, Institut Català de Paleoecologia Humana i Evolució Social,  
Escorxador s/n, Tarragona 43003, Spain*

*Area de Prehistoria, Universitat Rovira i Virgili,  
Av. Catalunya 35, Tarragona 43002, Spain  
Email: alombera@iphes.cat*

*Grupo de Estudos para a Prehistoria do Noroeste (GEPN). Dpto de Historia I,  
Universidade de Santiago de Compostela.  
Praza da Universidade, nº 1. Santiago de Compostela 15782, Spain.*

*Ramón Fábregas-Valcarce*

*Grupo de Estudos para a Prehistoria do Noroeste (GEPN). Dpto de Historia I,  
Universidade de Santiago de Compostela.  
Praza da Universidade, nº 1. Santiago de Compostela 15782, Spain.  
Email: ramon.fabregas@usc.es*

*Talía Lazuén-Fernández*

*Instituto Internacional de Investigaciones Prehistóricas (IIIPC)  
Universidad de Cantabria  
Avda. de los Castros s/n. Santander 39005, Spain  
Email: talia.lazuen@alumnos.unican.es*

**Abstract:** *The site of Cova Eiros, located in a mountainous area in the interior of Galicia, has provided Middle and Upper Paleolithic well-dated archaeological materials. Presently 6 archaeological levels have been identified. The Middle Paleolithic levels have provided the largest amount of lithic and faunal remains. In this sense, in Cova Eirós we have recorded the Westernmost occupations by Neanderthal groups currently known in the Cantabrian Rim. Therefore, Cova Eiros is a key site for understanding the passage from the Middle Paleolithic to Upper Paleolithic in the NW Iberia.*

**Keywords:** *Upper Pleistocene, Middle Paleolithic, Upper Paleolithic, raw materials, lithic technology, faunal remains*

**Resumen:** *El yacimiento de Cova Eirós, situado en la región montañosa del interior de Galicia, ha proporcionado una interesante secuencia con materiales que abarcan el Paleolítico medio y Paleolítico superior. Hasta la fecha, han sido identificados seis niveles arqueológicos. Los niveles correspondientes al Paleolítico medio son los que presentan una mayor cantidad de materiales líticos y faunísticos. En este sentido, en Cova Eirós se registran las ocupaciones más occidentales de Neandertales de la región Cantábrica. Por todo ello, Cova Eirós es un yacimiento clave para entender la transición del Paleolítico medio al Paleolítico superior en el NW peninsular.*

**Palabras clave:** *Pleistoceno superior, Paleolítico medio, Paleolítico superior, materias primas, tecnología lítica, fauna.*

## **Introduction**

Cova Eirós is located in Triacastela (Lugo), at 780 meters a.s.l. This cavity opens to the exterior in the NNW slope of the Monte Penedo (Serra do Ouribio), in Early

Cambrian limestones (Figure 1). The entrance of the cave is 3.5-meter wide and has 2 m of height, with a length of 104m (Figure 2).

The discovery of ursid fossils during the decade of 1980

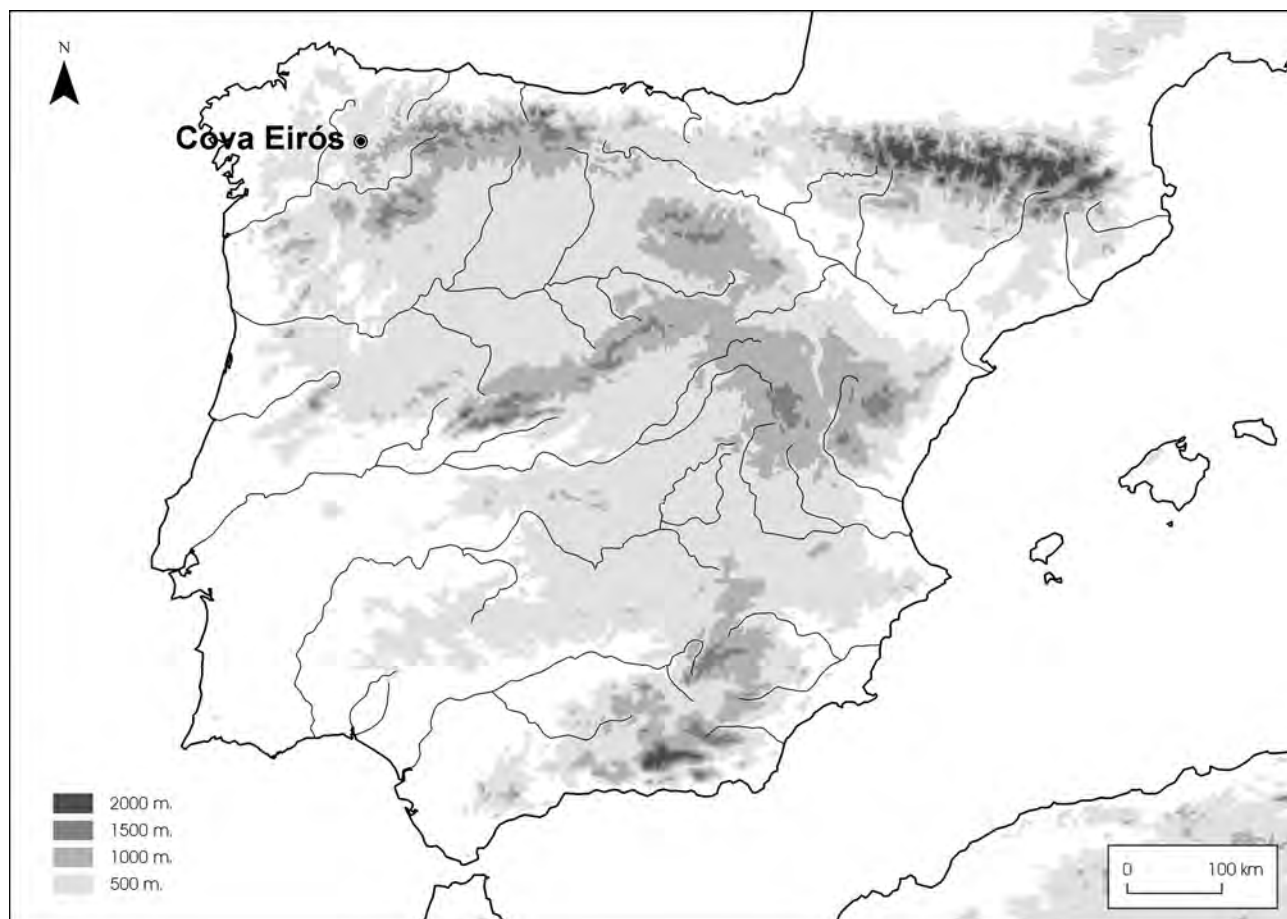


Figure 1: Location of Cova Eirós at the Iberian Peninsula.

led to the realization of various campaigns of excavation, that provided around 4.000 remains of *Ursus spelaeus*, that correspond to a minimal number of 43 individuals (Grandal, 1993). These palaeontological excavations were carried out at the bottom of the cave. A radiocarbon date (AMS) was obtained from a fossil of *Ursus*: 24,090 ± 440 years BP. Also, a stalagmitic crust placed below the paleontological level was dated to 117,252 ± 75,438 years BP (Grandal and Vidal Romaní, 1997).

In 1993 a test pit of 1 m<sup>2</sup> was dug at the entrance of the cave, in the frame of the Archaeological Project “Val do Sarria-Val do Mao”, leading to the recovery of over 550 lithic artifacts, adscribed to the Upper and Middle Paleolithic (Nogueira, 1997). Another palaeontological intervention at the end of the cavity took place in 1994. In 2008 new archaeological excavations were initiated, in the context of the research project “Human Settlement during the Pleistocene in the middle Basin of the Miño River“(Fábregas *et al*, 2009). During the campaign of 2008 two test pits were dug. The first, measuring 2x2 meters (“Pit A”) was excavated at about 2m from the entrance of the cave, integrating the test pit of 1993. In the talus outside the cave a second pit (“Pit B”) of 1 x 1,5m was dug, with the following objectives: recording the extension of human occupations, the stratigraphic thickness of sediments, as

well as the possible stratigraphic correlation with the levels of the pit A (Figure 2).

Two storage pits were located in the West sector of the Pit A. Ceramic, faunal and lithic remains (of medieval and modern times), appeared in these silos. Part of the lithic and faunal material would have to come from the Pleistocene levels dismantled when digging those features. The presence of the storage pits and of the test pit of 1993, reduced considerably the extension of the Pleistocene preserved sediments, so that only a complete square meter and a zone of about 50 cm<sup>2</sup> between the medieval storage pits were excavated.

During the 2009 season two fundamental objectives were proposed: 1) excavating the zone placed between the two pits opened in 2008; 2) continuing the excavation of the level 3 in the area of the pit A. The excavation of the zone placed between the two test pits allowed correlating stratigraphic levels initially identified in each of them (Fábregas *et al*, 2010). During the excavation of 2010 we continued the dynamics of the previous year. In this way, we kept on excavating the squares of the intermediate zone, between the test pits A and B, and in addition we kept on digging in the levels 3 and 4 from Pit A. For the purpose of finding out the nature and depth of the cave infill we carried through a geophysical survey by means of Ground

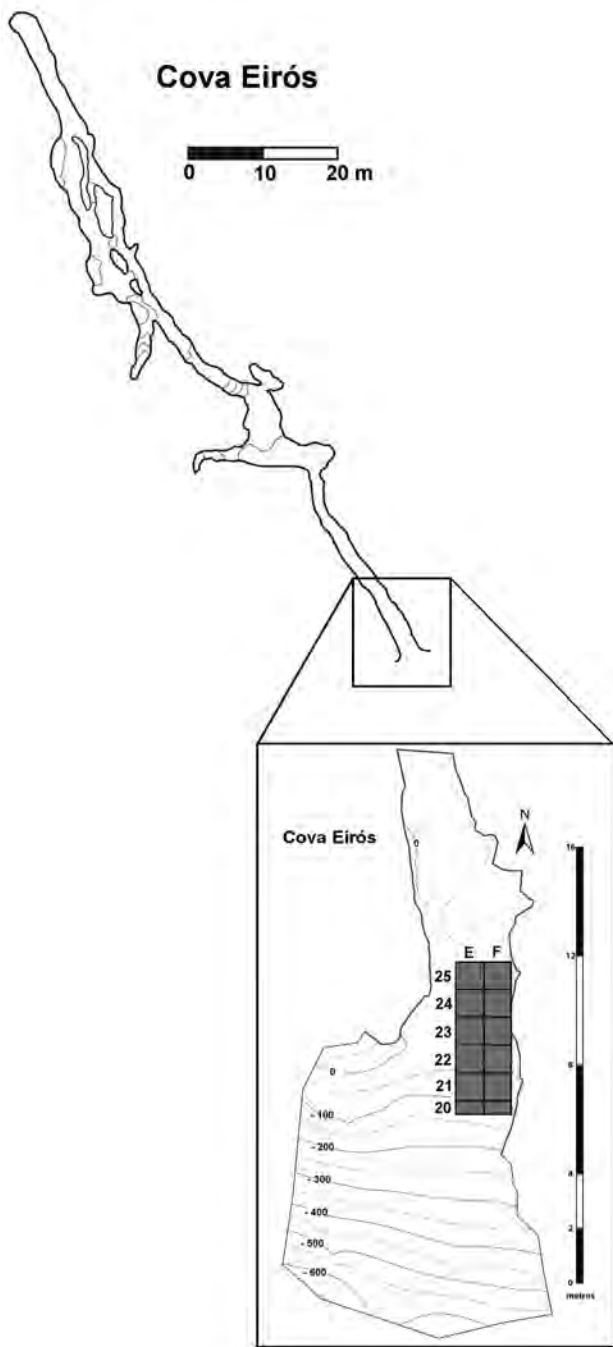


Figure 2: Plan of the cavities and location of the archaeological diggings at the entrance of the cave. Pit A corresponds to the square meters E-F 24-25, and Pit B to square meters E-20-21.

Penetration Radar (GPR) with the result of a sedimentary depth of 3.4m along the whole sector of the entrance.

### Stratigraphy and datings

The stratigraphic sequence identified in the pit A is as follows (Figure 3):

Surface level: Organic soil very loose and bioturbated. Thickness: 15-10 cm

Level 1: Fine yellowish sands in the upper part, scarcely compacted with laminar sub-horizontal stratification. Its upper part is sterile from the archaeological point of view. In the lower part of the level, areas of orange colored sands with archaeological material appear. Both upper and lower limits are net. Archaeological level. Thickness: 10-23 cm. The top of this level was dated by OSL to about 17.000 years BP. The Level 1 disappears in the southern part of the line 22-21 between the Level B and the Level 2.

Level 2: Clay loam level of orange color with bigger compactness than the upper level. Exhibits two differentiated facies: on the top (level 2a) sands are purer, without concretions, and its lower limit is marked by small limestone plates; at the bottom (2b) several sub-angular limestone clasts of small size appear (3-5 cm), and very carbonated, getting to the point forming a crust, more compact in the southern part. Lower undulating and net limit. Thickness: 34-45 cm. Archaeological level. There is one AMS radiocarbon dating available:  $31690 \pm 240$  BP (Beta - 254280).

Level 3: brown-colored clays and small limestone gravels, with a compactness and homogeneity greater than the overlying level. Thickness: 20-35 cm. Archaeological level. There is one OSL dating of  $84.807 \pm 4919$  BP (MAD-5612BIN).

Level 4: With the same matrix than level 3, clay appears much more carbonated, and there are more sub-angular calcareous clasts of small size. The thickness of this level is not yet known, since the excavation is under way. Archaeological level.

In the Pit B, under a level of fine sands, and sealed by limestone plaques (level B), an archaeological layer was identified. The thickness of this level is not yet known, since the excavation did not reach to its bottom because of numerous lithic and bone remains (level C).

The excavations of 2009 and 2010 provided new archaeological materials adscribed to the level B, identified initially in the external test pit (Pit B).

The level B is composed of a slimy whitish yellow-colored matrix considerably compacted, with angular limestone gravels (between 5 and 13 mm of maximum length). In the bottom of this level a stratum with dark sediments and high organic content has been identified, yielding lithic material. The upper limit of this level is gradual and it is defined by limestone blocks between 40 and 140mm in size. These blocks have a North- South orientation, and a slope towards the South, following the gradient of the talus at the cave entrance. Most of the archaeological material appears in the West part of the excavated area.

The projections of the archaeological material in a N-S section show that level B is above the level 1. In addition, the same analysis poses the hypothesis that the level C of

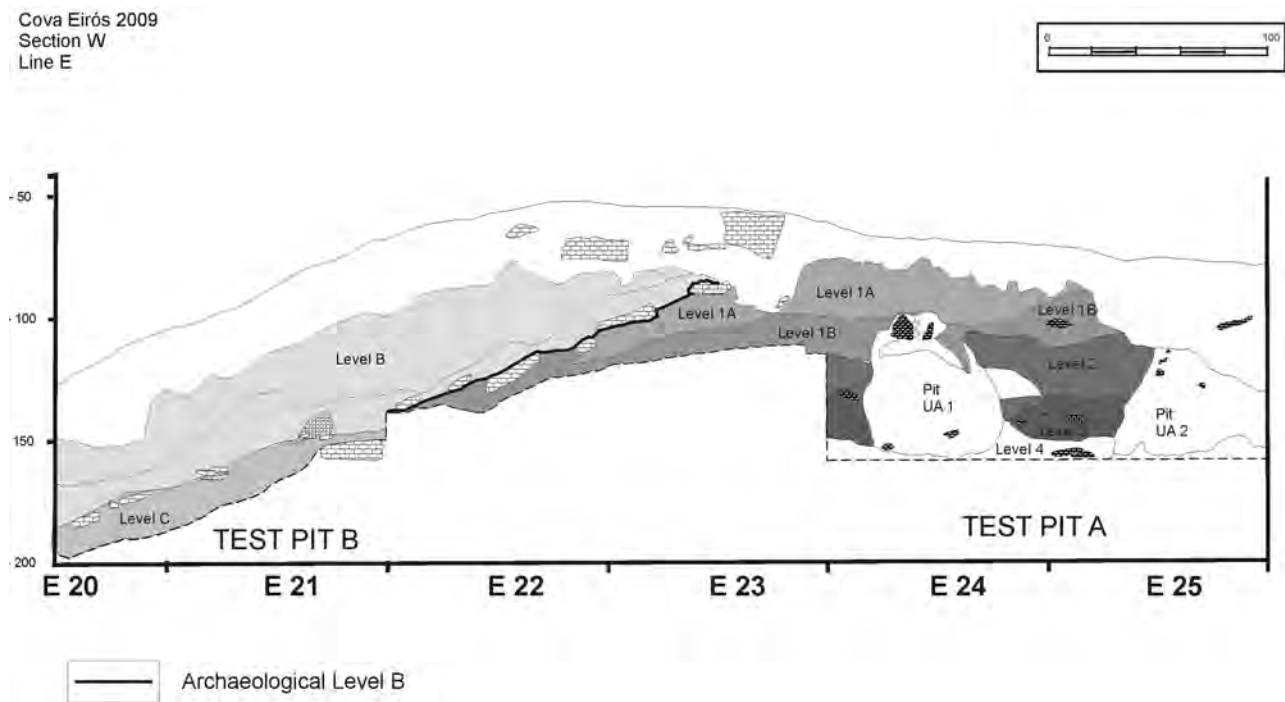


Figure 3: Stratigraphic profile. Section W.

Pit B (located outside the entrance of the cave) could be the result of a mixture of materials from the levels 2 and 3 inside the cave (Rodríguez *et al.*, 2009).

The interventions carried out between 2008 and 2010 have provided 3964 archaeological remains. The lithics sum 2449 objects, while the faunal remains are 1357. Also charcoals were localized (n= 135). The faunal remains appear with a high degree of fragmentation, often preventing identification.

Levels 3 and 4 are the ones that have provided more archaeological material, whereas level B is with fewer remains.

### Level 1

The level 1 has provided 516 archaeological remains, fundamentally lithic tools (n=371). The lithic industry of level 1, mostly recovered during the excavation of 2009, is in general of small size (average size of 19x17x8 mm). Quartz has been the raw material more used, followed at a great distance by rock crystal (Figure 4).

Quartz and quartzite were obtained in the rivers close to the cave. For the supply of rock crystal there are two possible sources: fluvial pebbles and quartz prisms for the production of bladelets or laminar flakes.

Among the reduction strategies the laminar method stands out, generally applied on prismatic supports of rock crystal and flint. In this level few cores have been localized (1.9%). But there is great predominance of knapping products (95,2%). Furthermore the cortical products are not common.

These data show a fragmented *chaîne opératoire*, since the first phases of production are not much represented in the archaeological record. The retouched elements are scarce (0.3%). Among these the flat retouch has been identified on a flint piece. Backed blades have been identified on rock crystal. These features allow us to adscribe the lithic industry of level 1 to an advanced stage of the Mode 4 (end of the Upper Palaeolithic) (Figure 5). Adscription which coincides with the dating of this level.

In this level 135 remains of fauna were found (122 bones and 13 teeth), currently under study. In this level also stands out the presence of a lynx's (*Lynx sp.*) clavicle, the first evidence to be recorded in the north-western Iberian Peninsula. Also, it is worth mentioning the finding of a pendant made on a carnivore's canine (*Vulpes vulpes*). This piece has a surface worked by means of scraping that confers a smooth and shiny appearance. In the root's middle part, the tooth has a transverse and deep groove, so that facilitating the posterior perforation of the piece. The lower side is fractured. This pendant is the oldest evidence of adornment on tooth of the north-western Iberian Peninsula (Figure 6).

### Level 2

In the level 2, 745 archaeological remains were located. The lithic raw material more utilized is quartz (94.6%), while quartzite only reaches a 4%. The average size of the artifacts is very small, due to the great quantity of small flakes (47.7%), and fragments (31.1%). Concretely, the average size of all the recovered objects is of 20x14x7 mm. In this level the cores found are very few (1.1%). Laminar knapping has been identified, as well as the



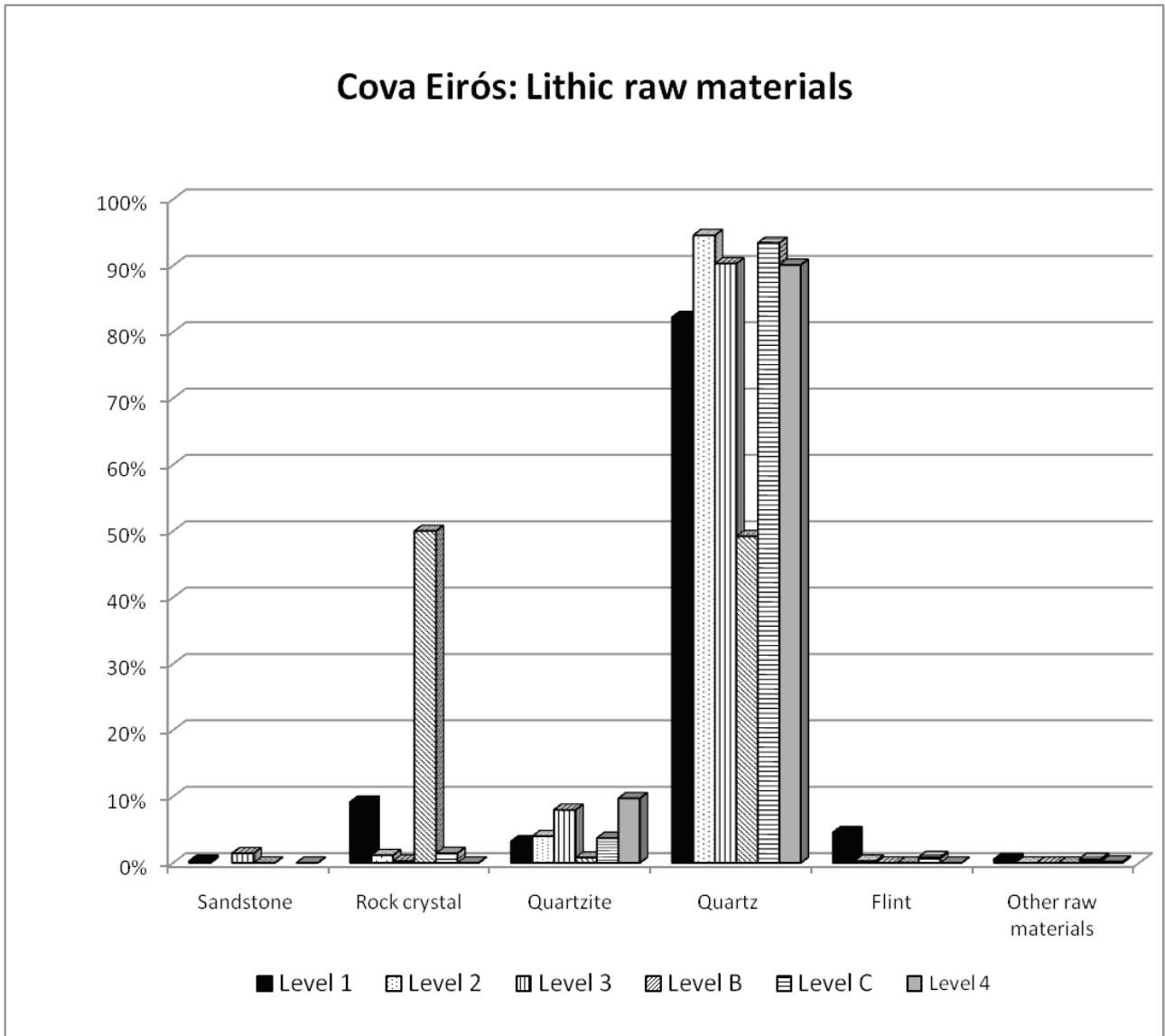


Figure 4: Lithic raw material percentages at the different archaeological levels.

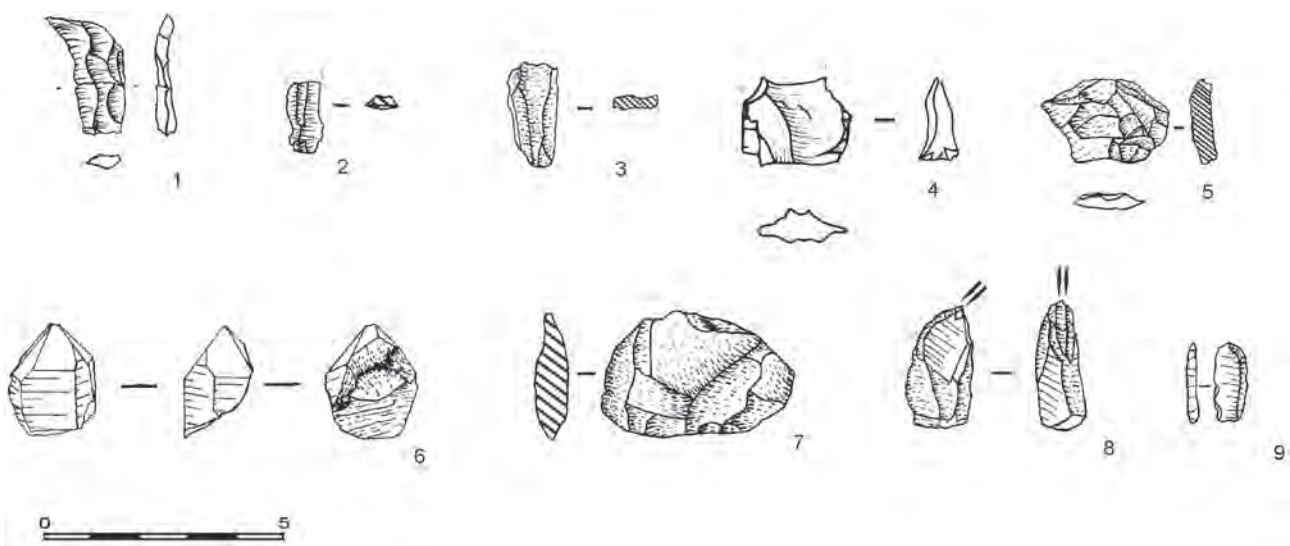


Figure 5: Lithic artifacts from Level 1 (1-7), B (8, 9).



Figure 6: Pendant made on a carnivore's canine (*Vulpes vulpes*) from Level 1.

multipolar orthogonal core reduction. According to these data, in this level the *chaîne opératoire* is fragmented also, due to the absence of the first phases of reduction. The retouched artifacts are very scarce in this level, standing out the finding of a burin. Although, from the typological point of view, this level has given few diagnostic elements, the technological characteristics of this assemblage and the radiocarbon dates allow us to adscribe it to the Upper Paleolithic (Mode 4) (Figure 7).

In this level 380 faunal remains were recovered, generally of small size and very fragmented. They include deer and roe deer (*Capreolus capreolus*), in addition to other small mammals and birds. Among the carnivores several pieces of the upper dentition of an individual of the genus *Canis* of large size stand out. Also a phalanx and a metapodial of small size that might belong to a wolf (*Canis lupus*) were localized. In the level 2 we also found brown bear phalanges (*Ursus arctos*), differentiated from the cave bear remains (*Ursus spelaeus*) from the paleontological deposit inside the cave and from this same level (11 remains). The remains of *Ursus spelaeus* could have come from inside the cavity (although they do not show transporting signs, perhaps because they were taken by other animals). Several pieces of deciduous dentition of *Ursus spelaeus* could have been *in situ* at the entrance of the cave.

### Level 3

In this level 1129 archaeological remains have been recovered, among these 702 lithic artifacts. In the level 3

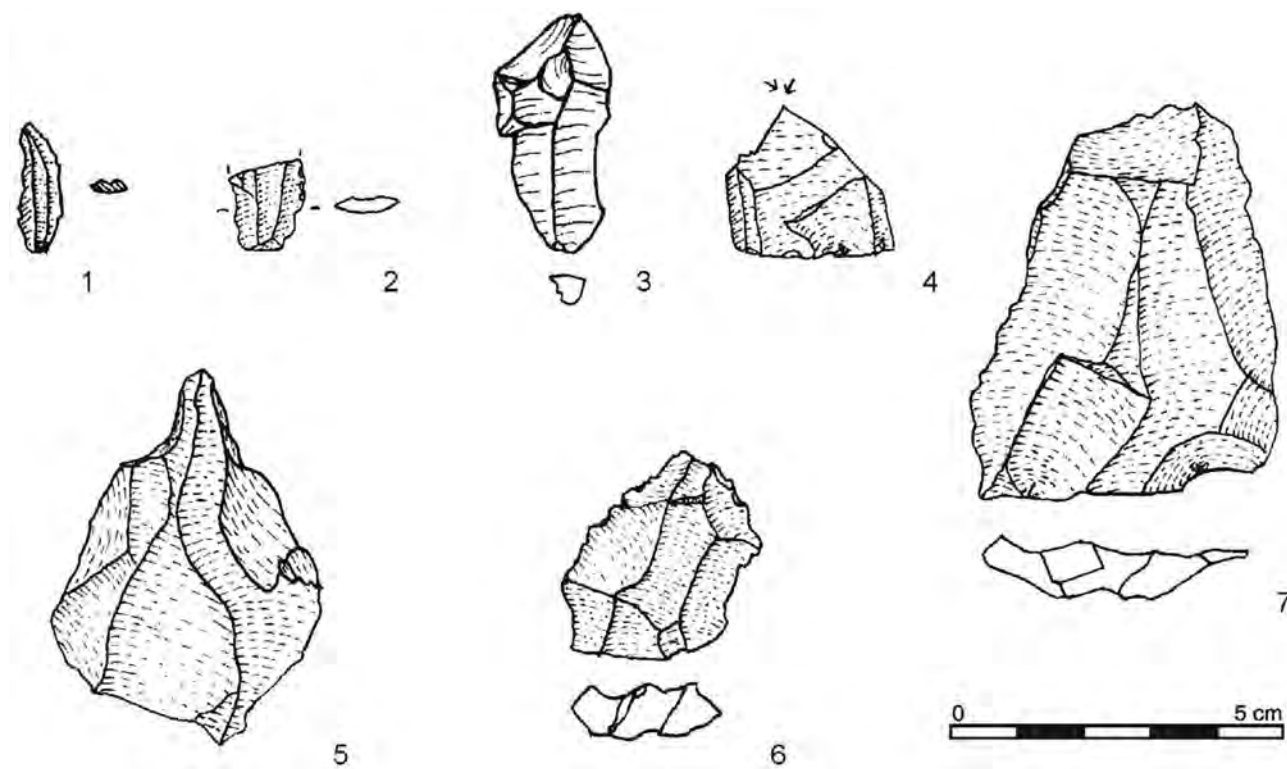


Figure 7: Lithic artifacts from Level 2 (1) and C (2-7).



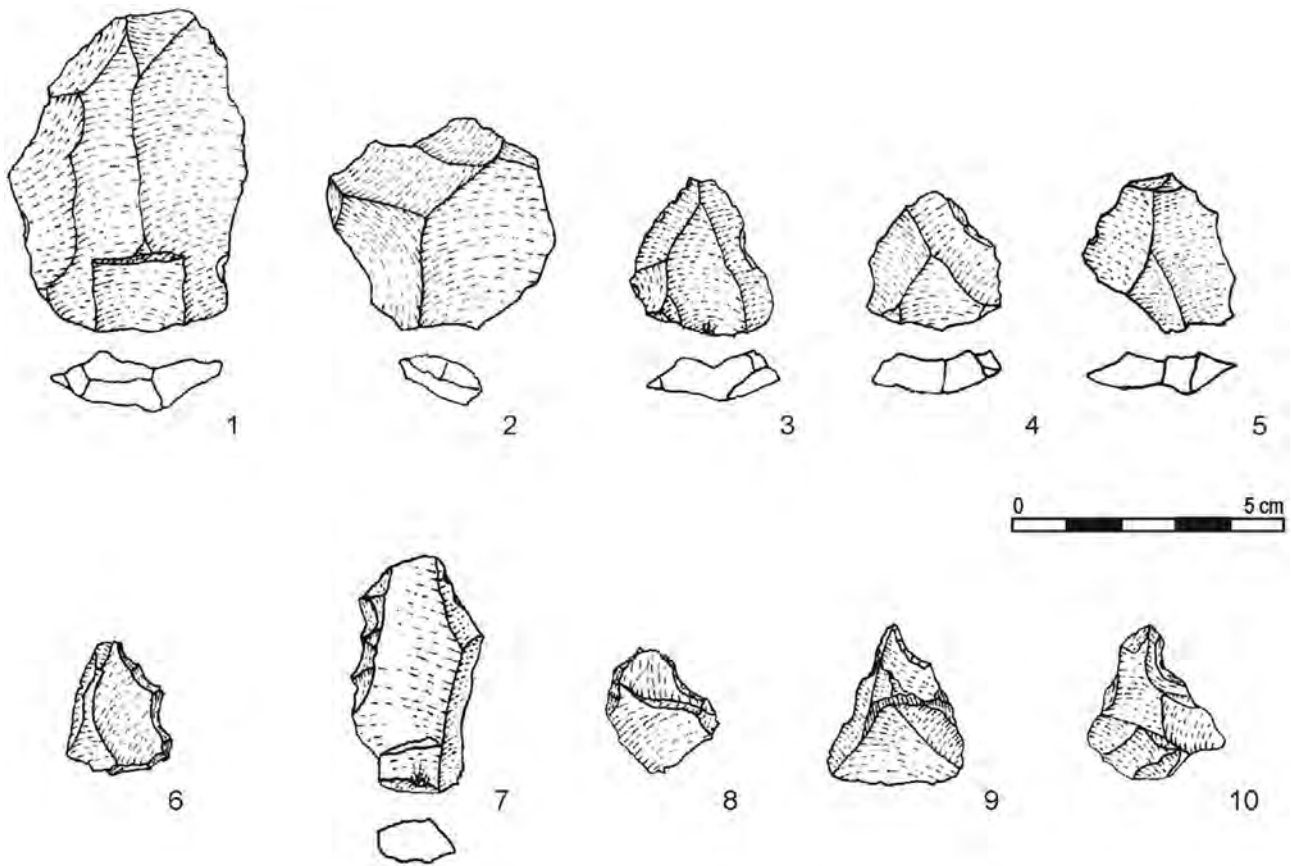


Figure 8: Lithic artifacts from Level 3. Levallois and discoidal flakes on quartzite and quartz (1-5). Configured tools on quartz (6-10).

of Cova Eirós quartz is the raw material more utilized (90 %). However, the secondary presence of quartzite (with a 8 %) is a remarkable feature.

In this level the strategies of exploitation identified include the Levallois method, the discoidal method, and multipolar orthogonal knapping. Also Kombewa flakes have been recorded. Few cores were found, such as in the levels 1 and 2. However, the number of retouched pieces is higher than in other levels, reaching a percentage of 9.9%.

Among the retouched flakes sidescrapers and denticulates stand out, followed by end scrapers and becs. The *chaines operatoires* are fragmented, with a high presence of knapping products and a reduced percentage of hammerstones (1.8 %) and cores (0.9%). The dominant categories are flakes (49.5 %) and fragments (16.8 %). It is worth mentioning the high percentage of multi-faceted (24.4 %) and bi-faceted butts (16.3 %).

The features of this lithic assemblage assign it to the Mode 3, with predominance of the predetermined strategies, mostly on fine-grained quartzites (Figure 8). The importance of the Levallois products stands out, contrasting with the scarcity of discoidal products, normally linked to the lithic assemblages based on the exploitation of quartz, such as

those identified in Monforte Basin (de Lombera *et al*, 2011, this volume).

The number of faunal remains located in this level is of 395. They have a high degree of fragmentation, making its taxonomic recognition difficult. Some fractures and attrition of the bones could be intentional, and many of them have cut marks on their surfaces, which point to the anthropic factor as the main agent of the accumulation (Figure 9). Three metapodial fragments of deer show evidence of anthropogenic activity, like notches, consequence of the fracturation to gain access to the marrow, as well as cut marks made with lithic tools.

In the Level 3 the most abundant species is the deer (*Cervus elaphus*), although remains of chamois and roe deer (*Capreolus capreolus*) have also been identified. The presence of a molar fragment of rhinoceros (Rhinocerotidae) suggests that some bone remains of a very large size could also belong to this family. Nevertheless, the degree of fragmentation of all of them does not allow being conclusive about the species.

Among the carnivores of the level 3 the most frequent species is the cave bear (*Ursus spelaeus*), represented principally by dental pieces, phalanges, hyoid bones and deciduous teeth (neonate individuals). These remains, as in

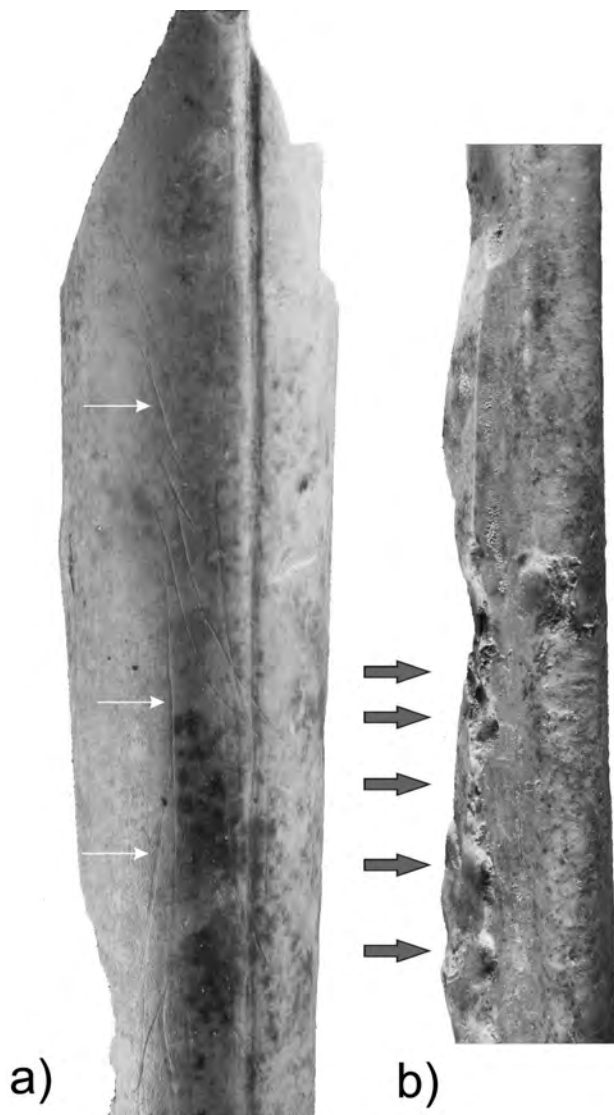


Figure 9: Bones with anthropic evidences. a) Cutmarks. b) Notches and fractures.

the Level 2, could come from the deposit inside the cave, although they do not present indications of rounding. In this level canid remains also appear and judging from their size they would belong to wolf (*Canis lupus*), and fox (*Vulpes vulpes*).

#### Level 4

During the excavations undertaken in 2010, a total of 955 archaeological remains have been recovered from the level 4. The study of these materials is currently under way. Most of the 566 lithic tools were made on quartz (90.1 %). The quartzite artifacts amount to a 9.7%. The preliminary data indicate that there is a predominance of knapping products. Flakes and fragmented flakes make up the 72.8%, while fragments are the 23.6%. Until now only a fragment of core has been found. In the same way, the retouched flakes are very scarce (1 %). We have also located hammerstones in this level (2.4 %), all of them made on quartzite. The average size of the objects is of 23 x 16 x 8mm. Among

the flakes there are 12% of bifaceted and multifaceted butts. The 89 % of the flakes does not have any relic of the cortex, while a 4.3% have their dorsal face completely cortical. As in other archaeological levels of Cova Eirós, not all the phases of the *chaîne opératoire* are represented, standing out the scarce number of cores and of retouched flakes.

In this level 309 remains of fauna have been recorded. Among these, there are 295 bones and 14 teeth, most of them fragmented. Within the identified remains a horse's tooth stands out. The 4.2% of the fauna is burned (n=13). In this sense, it is worth mentioning the number of charcoals located in this level (n=80), higher than elsewhere.

#### Level B

In the level B, identified during the excavation of 2009, 131 archaeological remains were found. The greater part of the material is lithic industry (n= 128). One of the main characteristics of this lithic assemblage is the similar percentages of rock crystal and quartz. In the rest of levels quartz clearly dominates as raw material; however in the level B rock crystal surpasses quartz slightly. Two strategies of knapping have been identified: reduction sequences on river pebbles of quartz and quartzite, using longitudinal and orthogonal strategies; on the other hand production of bladelets in rock crystal. Also bipolar flaking on quartz has been documented, although in a marginal way. Among the configurated tools there are distinctive Upper Paleolithic morphotypes: backed blades, backed points, a burin, a truncation, and sidescrapers have been identified, usually manufactured on rock crystal.

The stratigraphical position and the character of the lithic industry from this level place it on a final stage of the Upper Paleolithic, although this adscription is still pending confirmation. The faunal remains recovered in this level are very few (only two fragments of antler).

#### Level C

During the 2008 excavation, an archaeological level (level C) with lithic and bone materials was identified at test Pit B (Fábregas *et al.*, 2009). In all, 488 items were inventoried. The main raw material is quartz (93.4 %), followed by quartzite (3.7 %).

This lithic assemblage (n=349) shares with the level 2 a similar lithological variety, and certain technical and typological aspects. From the technical point of view, rock crystal flakes from the rejuvenation of percussion surfaces on prisms, and blade fragments have been identified. As to typology there are a burin in rock crystal and a borer. On the other hand, some elements can be considered characteristic of the level 3, like the presence of a specific type of fine-grained quartzite, and Levallois and discoidal products. Therefore, the level C could be a disturbed level, formed by the removal of materials from levels 2 and 3.

Regarding the fauna (n=136) we observed a mixture of species and of stages of fossilization. This fact could reinforce the hypothesis that this level is the result of the removal of the strata located in the Pit A. Among the identified materials, the cervids and a large-size herbivore stand out. Also a bovine remain have been identified. Among the carnivores only *Ursus spelaeus* occurs.

### Conclusions

Cova Eirós has provided until now archaeological material corresponding to 6 levels. The levels 3 and 4 are those containing higher densities of material.

From the point of view of the lithic technology, quartz is the commonest raw material in all levels, with the exception of the level B. In the latter rock crystal and quartz have similar percentages. Quartz stands out mostly in levels 2 and C, with percentages over the 93%. Quartzite has been used all around, but mostly in levels 3 (8%) and 4 (9.7%). Rock crystal is the raw material more utilized in the level B and ranks the second in level 1. The rest of raw materials (among them flint) have low percentages. Quartz is of local origin, while the fine-grained quartzite (fluvial pebbles), rock crystal and flint are allochthonous and their sources have not yet been identified.

The character of the lithic technology and the absolute dates indicate that levels 1, 2 and B correspond to the Upper Paleolithic. The levels 1 and B could belong to an advanced stage of the Upper Paleolithic, because they have some differences with the level 2, which would belong to the beginning of the Upper Paleolithic. From the point of view of the raw materials, these differences consist on a greater utilization of flint and rock crystal, at the expense of quartz and quartzite. Relating to the techno-typology, the presence of bladelets and backed points in the levels 1 and B stands out, as well as the existence of portable art. These traits could set these levels in the later part of the Upper Paleolithic, similar or, perhaps, earlier than the cave of Valdavara (Becerreá, Lugo), and the deposits of the Xistral mountains (Lugo) (López, 2003; Ramil and Ramil, 1996; Vaquero *et al*, 2009). If these hypotheses are confirmed, the sedimentary hiatus between levels 1 and 2 would match the archaeological vacuum in the north-western of the Iberian Peninsula between circa 30,000 and 15,000 years ago. This period coincides with the advance of the glaciers in the Eastern mountains, and with the climatic deterioration in the interior of Galicia. On the other hand, if the radiocarbon gives earlier dates, level 1 could be the first evidence of human occupation during the Last Glacial Maximum.

The lithic technology of the levels 3 and 4 has some features that place these occupations in the Middle Paleolithic, with Levallois and discoid flaking (among other reduction strategies) and a raw material management similar to those Middle Palaeolithic sites discovered in NW Iberia (vg. A Piteira), where Levallois and discoidal method are applied on fine-grained quartzite and good quality quartz, while the

unipolar and orthogonal strategies are applied on quartz of medium quality.

As to the fauna, a remarkable aspect of the sequence at Cova Eirós is the decrease of bear and carnivores in the upper levels. Thus, carnivores are more numerous in levels 2, 3 and 4, while in level 1 there are very few remains. This trend has been recorded at other sites of the Cantabrian region where the number of carnivores is higher in the occupations of the Middle and Early Upper Paleolithic, while towards the end of the Upper Paleolithic their presence drops (Yravedra, 2002). Furthermore, the high number of bear remains from levels 2 and 3 (especially deciduous teeth), could be explained by the alternate use of the cavity by humans and cave bears.

Summing up, the data obtained thus far through the excavation of Cova Eirós have raised the site to the rank of the most comprehensive deposit for the Upper Pleistocene in NW Iberia.

### Acknowledgments

The archaeological dig and research in Cova Eirós were done with the founding of the Spanish “Ministerio de Ciencia e Innovación” (research projects HUM2007-63662 and HAR2010-21786/HIST), and from the “Concello de Triacastela”. ALH has been supported by a pre-doctoral grant from Cátedra Atapuerca Foundation.

### References

- Fábregas, R., Alonso, S., Ameijenda, A., Grandal D'anglade, A., Lazuén, T., De Lombera, A., Pérez, A., Pérez, M., Rodríguez, X. P., Rodríguez, C., Serna, R., Terradillos, M., and Vaquero, M. 2009. Novos resultados das intervencións arqueolóxicas no sur lucense. Os xacementos paleolíticos da Depresión de Monforte de Lemos (Monforte de Lemos), Cova Eirós (Triacastela) e Valdavara (Becerreá), *Gallaecia* 28, 9-32.
- Fábregas Valcarce, R.; Alonso Fernández, S.; Ameijenda Iglesias, A; Grandal d'Anglade, A.; Lazuén Fernández, T.; de Lombera Hermida, A.; Pérez Alberti, A.; Pérez Rama, M.; Rodríguez Álvarez, X. P.; Serna González, M.R. and M. Vaquero Rodríguez. 2010. Completando o mapa. Novas datacións absolutas para o Paleolítico e Mesolítico do interior galego. *Gallaecia* 29, 5 -28.
- Grandal-D'Anglade, A. 1993. *El Oso de las Cavernas en Galicia: el yacimiento de Cova Eirós*. Serie Nova Terra, 8. A Coruña, O Castro, 285 págs.
- Grandal-D'Anglade, A. and Vidal Romaní, J. R. 1997. A population study on the Cave Bear (*Ursus spelaeus* Ros.-Hein.) from Cova Eirós (Triacastela, Galicia, Spain)”, *Geobios* 30-5, 723-731.
- de Lombera Hermida, A., Rodríguez, X. P., Fábregas Valcarce R. and Lazuén Fernández, T. 2011. The Paleolithic settlement of the Monforte Basin, in A. de Lombera Hermida and R. Fábregas Valcarce (Eds.), *To the West of Spanish Cantabria: the Palaeolithic*

- Settlement of Galicia*, 95-112. British Archaeological Reports (BAR), Archaeopress, Oxford.
- López Cordeiro, M. M. 2003. El yacimiento epipaleolítico de Chan da Cruz (Valadouro, Lugo): Síntesis de los primeros resultados. *Complutum* 14, 39-54.
- Nogueira, S. 1997. Unha primeira aproximación ó estudio dos materiais líticos de Cova Eirós (Triacastela-Lugo). *Historia Nova* IV, 9-29.
- Ramil Rego, E. and J. Ramil Soneira 1996. El fin de los tiempos glaciares en Galicia. Magdaleniense y Epipaleolítico, in: R. Fábregas Valcarce (ed), *Os primeiros poboadores de Galicia: O Paleolítico*, 117-147. Edicións do Castro, Sada.
- Rodríguez, X. P., De Lombera, A., Lazuén, T., Fábregas, R. and A. Grandal D'Anglade 2009. El yacimiento arqueológico del Pleistoceno superior de Cova Eirós (Triacastela, Lugo, España), in Boski, T., Moura, D. and Gomes, A., (eds), *IV Reunión do Quaternario Ibérica. O futuro do ambiente da Península Ibérica: as lições do pasado geológico recente. Faro, Portugal, 5-9 de Outubro de 2009*. Livro de resumos, pp 210-214.
- Vaquero Rodríguez, M., S. Alonso Fernández, C. A. Fernández, A. Ameijenda Iglesias, H. Blain, R. Fábregas Valcarce, G. Gómez Merino, A. de Lombera Hermida, J. M. López-García, C. Lorenzo Merino, M. Lozano, C. Rodríguez Rellán, J. Rosell Ardèvol and M. R. Serna González. 2009. Nuevas dataciones radiométricas para el Paleolítico Superior en Galicia: La cueva de Valdavara (Becerreá, Lugo). *Trabajos de Prehistoria* 66(1), 99-113.
- Yravedra, J. 2002. Subsistencia en la transición del Paleolítico medio al Paleolítico superior de la Península Ibérica. *Trabajos de Prehistoria* 59-1, 9-29.