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NEW PALAEOLITHIC CAVE ART IN CUEVA DE EL PENDO, CANTABRIAN REGION, SPAIN

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Abstract. This article presents a new group of Palaeolithic cave art recently discovered in Cueva de El Pendo (Region of Cantabria, Spain). This find consists of 17 figures painted in red ochre and sienna and located on a frieze 8.8 m long and about 3 m high. The figures are homogeneous in technique and style and are typical of the Cantabrian paintings corresponding to Leroi-Gourhan's style III, through the use of the technique of dabbed dots, and such characteristic artistic conventions as the V-shaped ears in the representations of hinds, the most common animals in the group. This discovery widens the distribution area of the so-called 'Group of the Ramales School', formed by caves such as Arenaza, Covalanas or La Pasiega, all of which have art very similar to this new group of paintings in El Pendo.

Introduction

El Pendo cave is one of the most often mentioned sites in archaeological literature, and its stratigraphical sequence is frequently referred to in studies of the Palaeolithic Age in the Iberian Peninsula. Located in the centre of the Cantabrian Region, in the north of Spain, the entrance of El Pendo lies in a cliff of Aptian limestone, near the bottom of an uvala in the Peñajorao Mountain (Figure 1). This is an intensively karstified area, part of an arc around the Bay of Santander (García Mondejar 1990), providing one of the greatest concentrations of Palaeolithic sites in the south-west of Europe. El Pendo was discovered for science by Marcelino Sanz de Sautuola in 1878, and it has since been examined by numerous archaeologists, such as J. Vilanova y Piera, J. Carballo or Martínez Santaolalla. Numerous archaeological excavations since the end of last century have shown a complete stratigraphical sequence, including eighteen strata and twenty-eight different levels covering the full Würm glaciation and practically the whole of the Holocene, with a succession of cultural traditions ranging from the Mousterian to the Middle Ages. This has made the stratigraphy of the cave one of the chronostratigraphic references for south-west European pre-History, together with the nearby sites of El Castillo and Morín Caves. In 1907, H. Alcalde del Río discovered a group of engravings (an unknown quadruped and a possible Great Auk; d'Errico 1994: Figs 6 and 7) in the passage at the end of the cave, and these were the only examples of rock art known in the cave until the present time. So far, the most complete study of the cave is that of J. González Echegaray (1980), who systematised all

the work carried out in the cave, especially the excavations during the years from 1953 to 1957.

Since 1994, a multi-disciplinary team from various Spanish universities, co-ordinated and led by R. Montes Barquín and J. Sanguino González, have been working in El Pendo Cave, with the primary aim of obtaining palaeo-environmental and palaeo-economic data for the early Upper Pleistocene, as well as recording a series of ritual and funerary structures dated to the late Bronze Age.

During the 1997 operations, actually on the last day, while the last archaeological materials from the so-called 'Bronze Age shrine' were being collected, a series of red lines were accidentally discovered on the wall above the highest part of the 'shrine', where the main chamber of El Pendo finishes at the entry to the lower, narrower and darker part of the cave. This discovery was made by Carlos G. Luque (surveyor), José M. Morlote Expósito and Angeles Valle Gómez (the archaeologists in charge of the Bronze Age materials).

Situation of the paintings and description of their environment

El Pendo was formed by a small stream progressively cutting its course through horizontal limestone beds. It can now only be explored for a short distance, 150 m, but the cave is of massive proportions, consisting of a main chamber 80 m long, 45 m wide and 25 m high (Figure 2). This is followed by a narrow meandering passage which is blocked by clays and silts of fluvial origin, marking the end of the cave, which is the location of the engravings discovered in 1907.

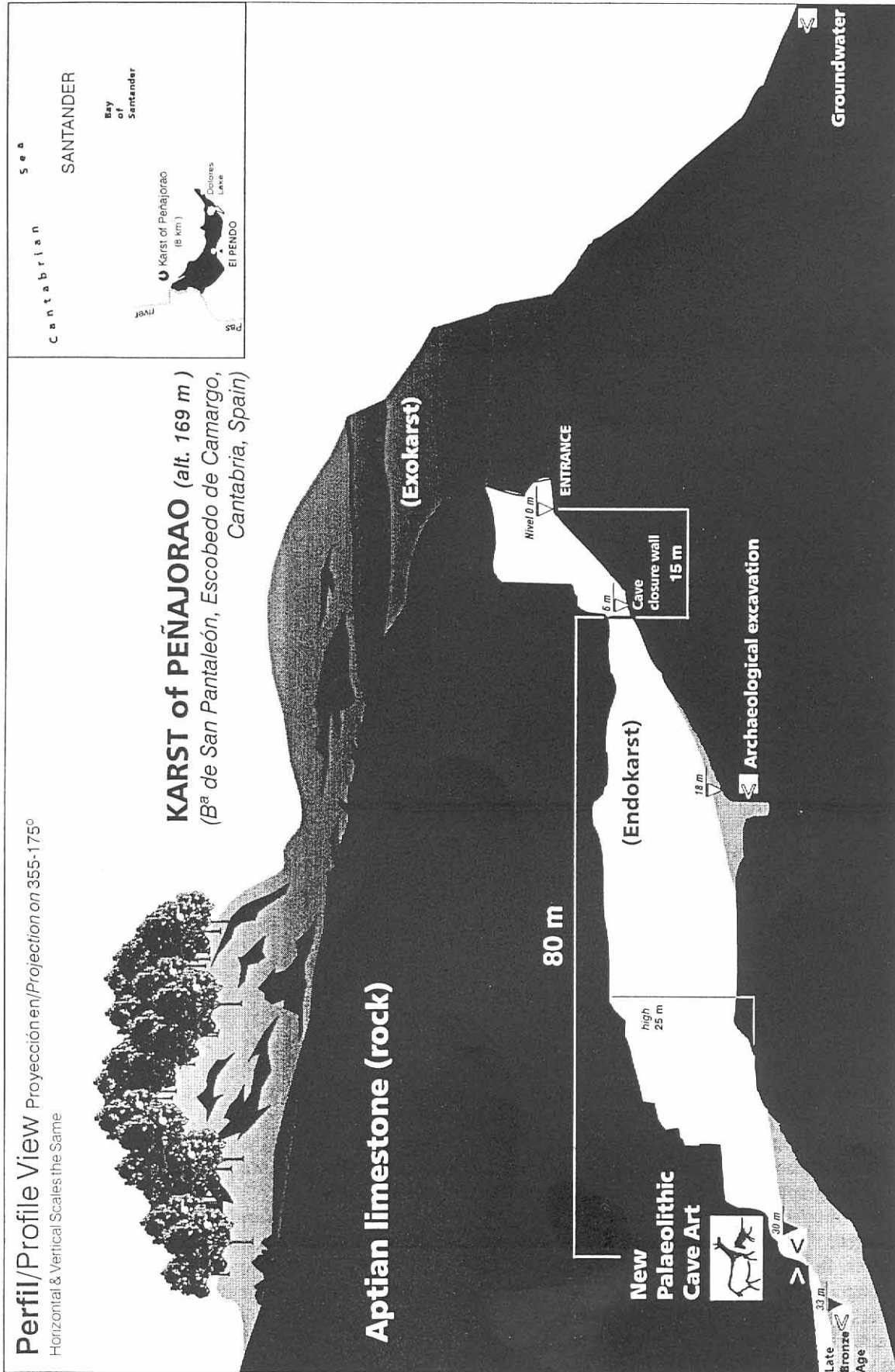


Figure 1. Cross-section of Cueva de El Pendo, Cantabria, Spain.

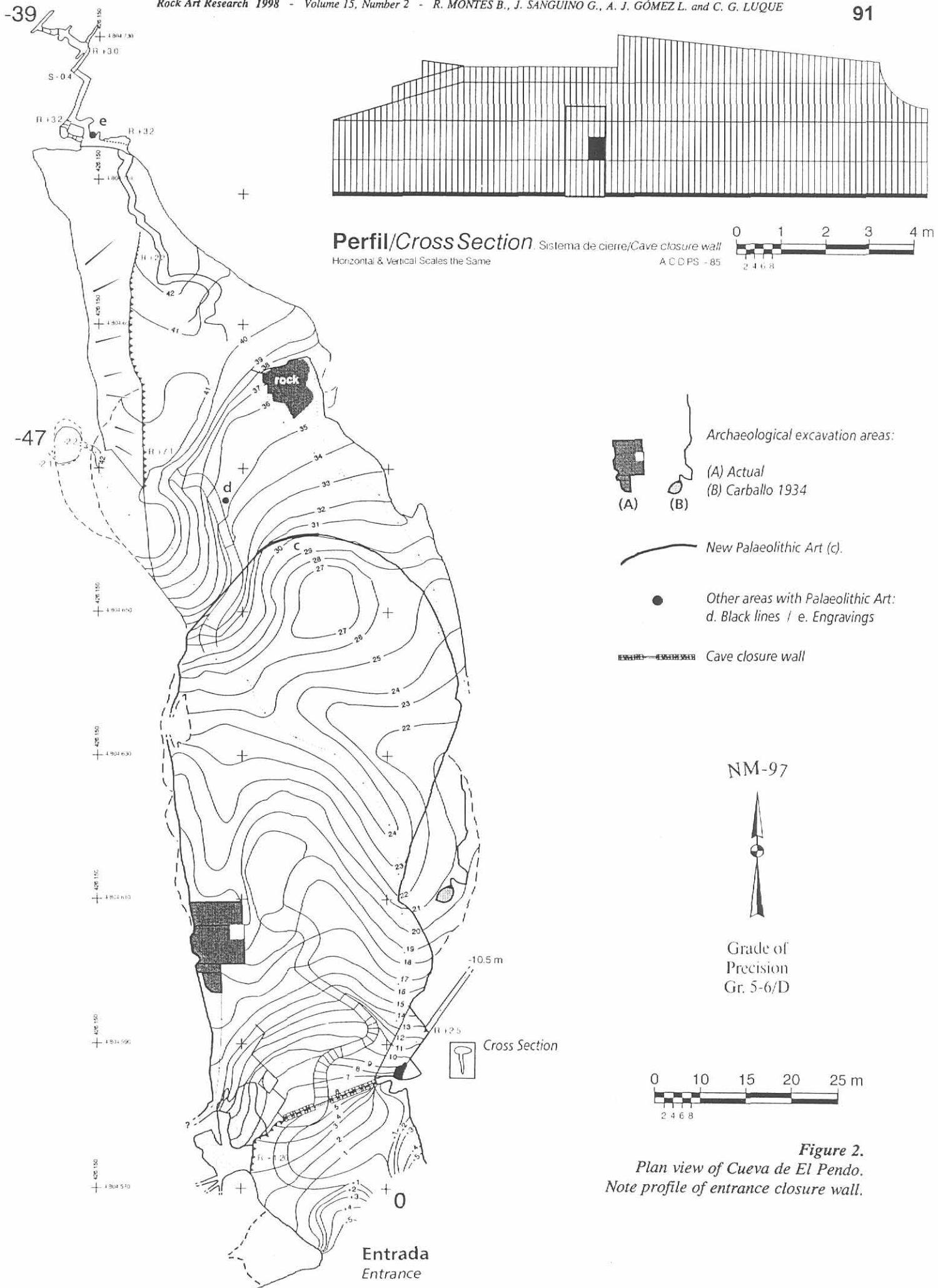
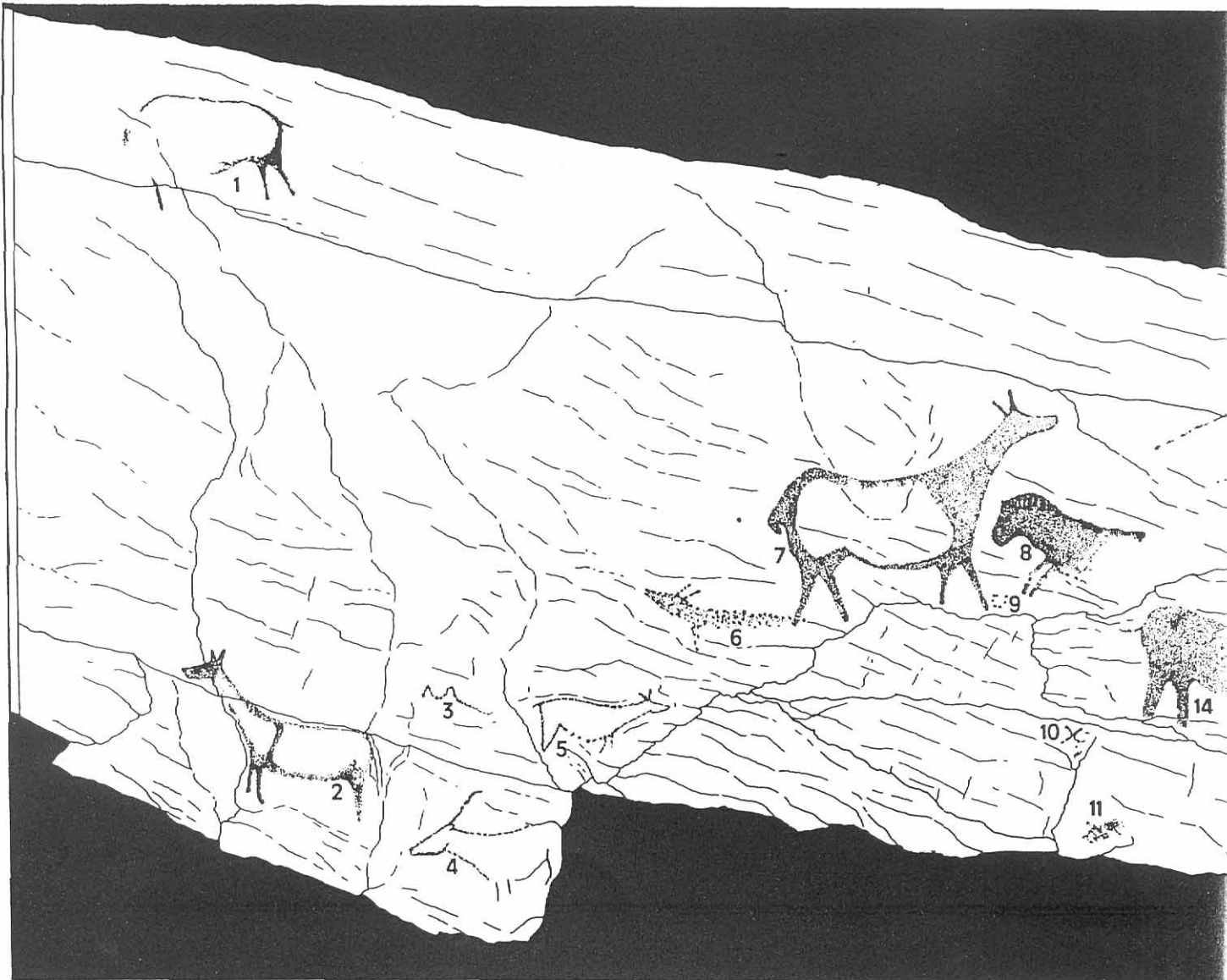


Figure 2. Plan view of Cueva de El Pendo. Note profile of entrance closure wall.



The frieze supporting the new figures is located eighty metres from the gate at the cave entrance, beyond the reach of the natural light entering the cave, where the chamber is left in complete darkness. From the great dome of the cave ceiling almost to the floor, the Aptian limestone is stratified into a series of beds. The lowest strata, barely 1.5 m from the floor (consisting of large boulders collapsed from the limestone beds in the roof), bears the frieze with the group of paintings.

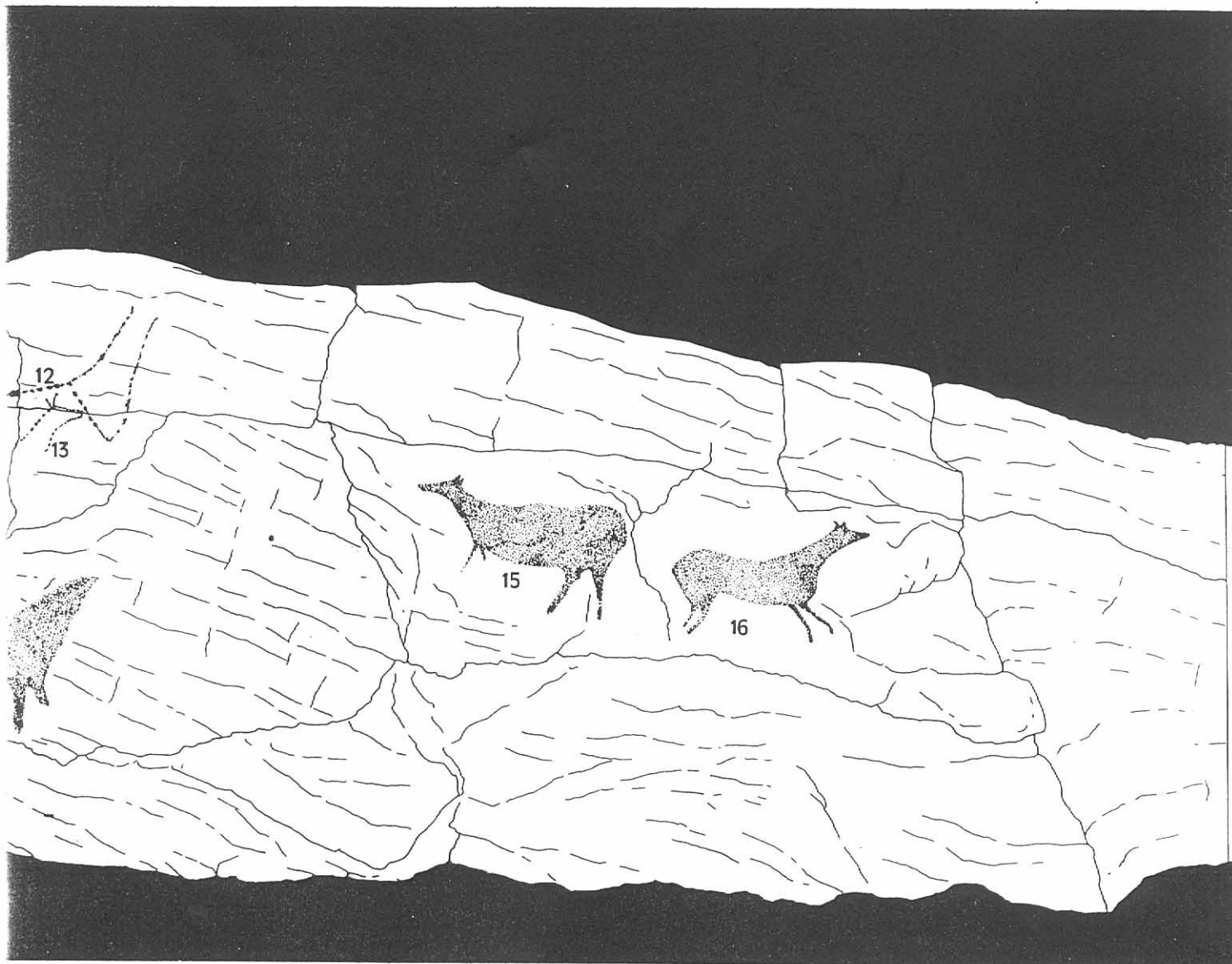
The decorated area is approximately 8.8 m long and between 3 m and 3.5 m high (Figure 3). The limestone dips slightly from West to East, with numerous cracks, flaking and other natural alterations, but without any damage due to modern human causes (such as graffiti or other types of deterioration to the rock or paintings). The wall is extremely dry, as it is situated in a fossil zone of the El Pendo cave system, with hardly any stalactite drips or active flowstone.

The microclimate of this area is similar to the rest of the cave: a temperature of 9.5°C, and a relative air humidity of over 96%.

The dryness of the wall has, nevertheless, caused the iron oxide paint to be absorbed by the rock. Furthermore, all this area has been colonised by a kind of small white lichen (*Caloplaca murorum*), which is being studied at the moment, as has all the area of the cave with natural light. Finally, the numerous cracks and hollows caused by the deterioration of the rock have allowed the accumulation of dust and dirt. These agents partially hide the figures; hence, they had remained unseen by all the archaeologists who have visited the cave since the end of the last century.

Description of the figures

Since their discovery we have tried to analyse and study the paintings, as well as take appropriate measures to ensure their conservation, since the agents mentioned above are a long-term threat which needs to be countered. As a result, the work carried out by the conservators, Maribel Martín, Pierre Vidal and Eudald Guillemet, mainly to eliminate the dirt and lichen, will also facilitate the study and observation of the figures.



The group of rock paintings is dominated by the figures of 'hinds', seven apparently identifiable figures and two probable ones, and also includes a 'goat', a 'horse', three indeterminate quadrupeds, two 'signs' and various other dots and lines.

These figures have been numbered from left to right (Figure 3), as they are listed in the following inventory:

Motif 1. Indeterminate quadruped (possibly a bovine), located more than 4 m above the present floor (boulders), on the upper part of the frieze. Its rear quarters are fully painted-in, the cervical-dorsal line including a prominent hump is painted as a single continuous line, while various patches of colour belong to its forequarters. The figure still has not been examined in detail due to its position. Its measurements are approximately 75 × 35 cm.

Figure 3. The frieze of rock paintings discovered in El Pendo.

Motif 2. 'Hind' painted with two techniques: overlapping dots and colour-wash, using the form of the rock to complete the lower part of the neck, the cervical-dorsal line and the croup. The dividing lines at its front quarters are characteristic. The mouth of this motif has been drawn on a different rock face from the rest of the animal, which measures about 85 × 30 cm.

Motif 3. 'Sign' painted with the overlapping dot technique, consisting of two protuberances and a curved line. It could be interpreted as a serpentiform. It measures 28 × 7 cm.

Motif 4. Front of a caprid consisting of the head, neck and horn, painted with overlapping dots. The natural form of the rock completes the rear quarters, belly and front legs. The paint has been added to this natural relief to create the complete figure of a goat. Its dimensions: 60 × 40 cm.



Figure 4. Quadruped painting resembling a hind, motif 7.

- Motif 5. 'Hind' painted with simple dotted line. It has the classic convention of V-shaped ears and measures 48×16 cm.
- Motif 6. 'Hind' painted with overlapping dots. Only the head, neck, and cervical-dorsal line are represented, while dots fill the area of the head and neck. The last two dots of the cervical-dorsal line underlie one of the rear legs of the motif number seven, which is the only case of superposition in the whole group. It is the only figure painted in the colour sienna (limonite). Its dimensions are 70×30 cm.
- Motif 7. Large complete 'hind', painted with the three techniques used in the frieze (simple lines, overlapping dots and colour-wash). It seems to be the central figure in the whole composition, due to both its size and the central, preponderant position it holds within this. As well as the conventional V-shaped ears, the rear quarters and the belly are fully-coloured, and the area between the forequarters and the mouth is filled with dots. It overlies motif number 6. Its dimensions are 125×80 cm (Figure 4).
- Motif 8. Front of a 'horse' with forequarters, painted with a wide continuous line. It has a brush-type mane, indicated with up to six vertical lines. The neck and head are filled with dots. This motif appears to be associated with the central figure of the panel, number seven, which it faces in the central area of the frieze. It measures 64×22 cm.
- Motif 9. Possible 'sign' in the shape of a vulva, represented with overlapping dots, and located between motifs 7 and 8; to be exact, at the height of both of their forequarters. Its dimensions are 6×4 cm.
- Motif 10. Red marks apparently representing V-shaped ears and the upper part of a hind's head. It is composed of dots, both separate and overlapping, and it is quite likely that the exfoliation of some small flakes of rock in this area has led to the loss of the rest of the figure. It measures some 15×10 cm.
- Motif 11. Isolated and unconnected lines and marks of paint situated on the lower part of the wall. They could correspond to the figure of a quadruped, but most of the pigment has been lost, and it is impossible to determine the form of the painting.
- Motif 12. Front of a headless animal, painted with a dotted line. It consists of a cervical-dorsal line and the neck, with the typical lines dividing this anatomical part. It possibly corresponds to the figure of a headless hind, and in fact the head of another 'hind' (motif 13) is situated inside this figure. It measures 96×12 cm.
- Motif 13. Head of a 'hind' painted with overlapping dots, and with V-shaped ears, situated inside the previous figure. It measures 43×18 cm.
- Motif 14. Indeterminate headless quadruped, painted fully in red. The fragmented and cracked rock conditions and the dirt and lichen make it difficult to see this figure or to interpret it more exactly. It measures 83×26 cm (Figure 5).
- Motif 15. Complete 'hind' painted with colour-wash and a single continuous line. It is located in a hollow in the wall. Together with motif 16, it appears to form the part of the composition closing the panel on the far right. Its dimensions are 70×25 cm (Figure 6).
- Motif 16. Complete 'hind' painted in colour-wash and simple continuous line. It is the last figure, located at the end of the frieze, and it has dimensions of $68 \times$

20 cm (Figure 7).

Motif 17. Not situated on the frieze, but towards the interior of the cave, just behind the rocky outcrop bearing motifs 2, 3, 4 and 5. A group consisting of

two red circles, each of 3 cm diameter.

A few isolated dots, in red and sienna as well as in black, dispersed over the wall, complete the examples of art.



Figure 5. Headless quadruped painting, motif 14.

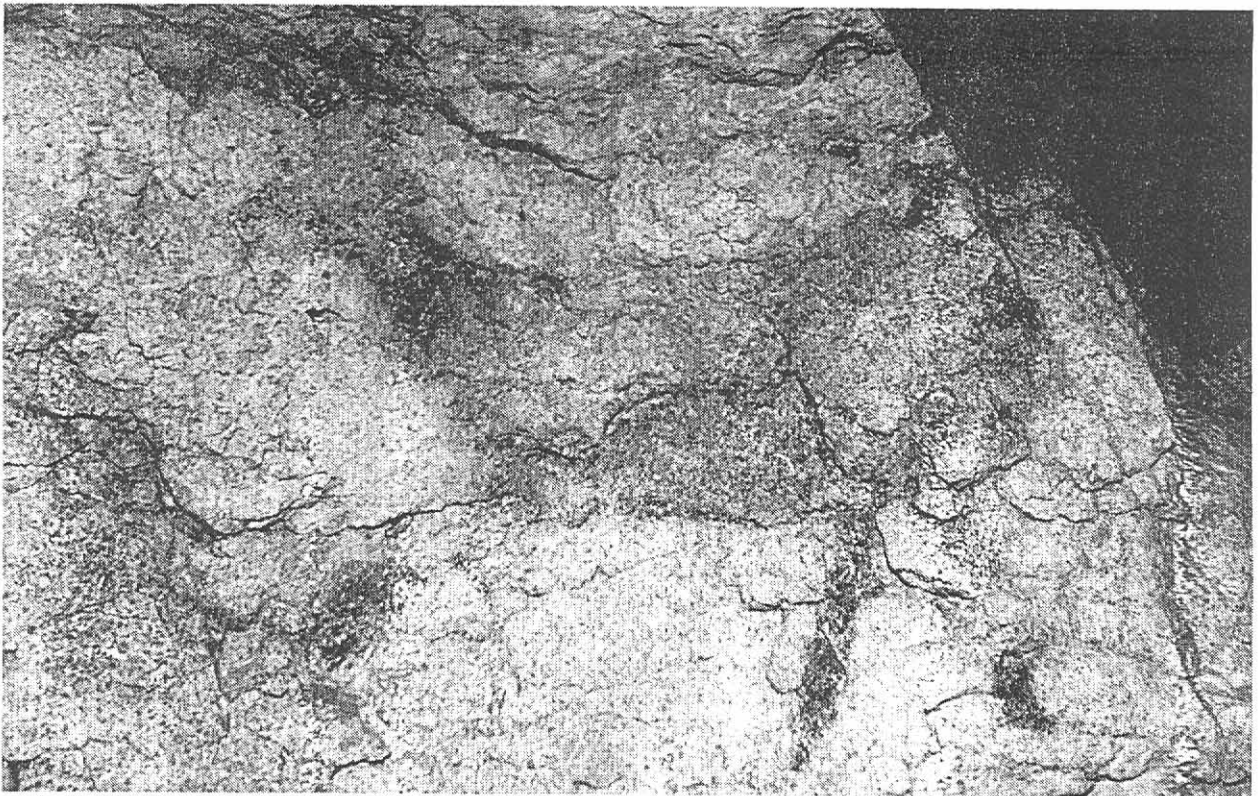


Figure 6. Quadruped painting resembling a hind, motif 15.



Figure 7. *Quadruped painting resembling a hind, motif 16.*

Preliminary appraisal

So far, three different artistic techniques have been recorded in the production of the figures: some parts of the animals are fully painted-in with a kind of colour-wash; lines were formed of dots, both separated and overlapping, which were dabbed onto the rock with a pad of some kind; and there are other simple lines that may be wide or narrow. Two or even three of these techniques are combined in some of the motifs (motif 7 is a good example, with one single line for the outline, dots in the neck and head, and fully painted colour-wash in the animal's legs and tail).

The predominant pigment is red ochre, while sienna appears in motif 6 and a few isolated dots located above it. The inventory is completed by a few isolated marks and dots in black, whose attribution to the Palaeolithic is doubtful as they are found on the lower part of the wall, immediately above several deposits of pottery and bones, which are part of the so-called 'Bronze Age shrine'.

The overall structure of the paintings on the wall suggests a unity in the composition, which apparently represents a scene. Everything seems to be articulated around a composition (motifs 7, 8 and 9) situated in the centre of the wall.

The characteristic style and technique situate this group, which may be considered as homogeneous, in a quite early stage of Leroi-Gourhan's style III, which, it is assumed, coincides chronologically with the Solutrean period and the first phases of the Magdalenian. On that basis we can tentatively attribute an age of between 18 000 and 20 000 years BP to this group, which is similar to the age proposed for paintings in caves such as Covalanas, La Haza, Arco and Pondra (all these in Ramales de la Victoria), La Garma (Omoño, Ribamontán al Monte), and with certain sectors of La Pasiega (Monte Castillo, Puente Viesgo). In all these caves there

are many figures which can be compared with each of the motifs in El Pendo.

No chronological relationship has yet been established between the paintings and the level of the presumably contemporary component of the cave's stratigraphy, the Solutrean. In fact, the Solutrean level was not documented in the main sediments dug during the big excavations of 1953-57, which have been the traditional reference point for the chrono-cultural development reflected in the cave's deposits. Solutrean sediments have only been located in another sector of this huge cave, an area which has never been fully studied and which has gained new interest since the discovery of the paintings.

It is impossible to establish an association between the paintings and the engravings discovered in the past, as the style and chronology of the latter are not well defined. However, it may not be too risky to suggest a similar chronology for both groups of art, as they share certain artistic conventions, such as heads that are much smaller in proportion than the rest of the animals' bodies, and the simplified form of the figures, not without some naturalism.

The importance of this new discovery, apart from the intrinsic value of any discovery of Palaeolithic cave art, could be summarised, in this first appraisal, in the following points:

- It is a homogeneous and perhaps synchronic group which can be included in Leroi-Gourhan's style III, thus enlarging the geographical area containing caves with this kind of paintings, belonging to what has been called 'Group of the School of Ramales' (Apellániz 1982). This Group is formed by a limited number of sites, concentrated in time (Solutrean) and space (the area between the cave of Arenaza, in the Basque Country and, now, the Bay of Santander),

although the main sites are found around the town of Ramales de la Victoria, in the east of Cantabria.

- It displays some common artistic techniques in the central area of the Cantabrian region during the start of the late Ice Age, such as dots and colour-wash to represent animal figures, the convention in the representation of hinds' ears (V-shaped) etc.
- This frieze is the most important group of cave paintings known so far in the area around the Bay of Santander, a region of great importance during the Upper Palaeolithic, as is shown by the presence of sites such as El Juyo, El Mazo, Morín, Santián, La Llosa, Covalejos and El Pendo itself. All these caves have important stratigraphical sequences, documenting intensive human occupation during the Middle and Upper Palaeolithic. As has been said before, this is one of the areas with the greatest density of Palaeolithic sites, not only in the Cantabrian region, but in the entire south-west of Europe.
- The good state of preservation of the group (unaltered by graffiti or natural deposits) adds another element of interest. Only the lichen and dirt accumulated in cracks and hollows spoil their visibility.

This is therefore a new corpus of Palaeolithic cave art of exceptional interest and archaeological value, which should be studied in depth and which will doubtlessly provide interesting information about Stone Age art.

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Résumé. Cet article présente un nouveau groupe d'art rupestre paléolithique découvert à Cueva de El Pendo (Cantabrie, Espagne). Cette découverte inclut 17 motifs peints en ocre rouge et en terre de Sienne et placés sur une frise de 8.8 m de long sur environ 3 m de haut. Les motifs sont homo-

gènes en technique et en style et sont typiques des peintures cantabriques correspondant au style III de Leroi-Gourhan, par l'application de la technique du pointillage, et de conventions artistiques caractéristiques telles que les oreilles en forme de V dans la représentation des biches, l'animal le plus commun dans le groupe. Cette découverte augmente la répartition géographique du 'Groupe de l'École de Ramales', constitué de grottes telles que Arenaza, Covalanas ou La Pasiega, qui ont toutes de l'art très semblable à ce nouveau groupe de peintures à El Pendo.

Zusammenfassung. Dieser Artikel stellt eine neuentdeckte Gruppe paläolithischer Höhlenkunst aus der Cueva de El Pendo in der Region von Kantabrien, Spanien, vor. Der Neufund besteht aus 17 Motiven, gemalt in rotem Ocker und Siena auf einem Fries von 8.8 m Länge und 3 m Höhe. Die Figuren sind homogen in Ausführung und Stil, und sind typisch für die kantabrischen Malereien des Stil III von Leroi-Gourhan, durch die Verwendung von der Tüpfeltechnik sowie durch charakteristische Konventionen wie die V-förmigen Ohren in den Darstellungen von Hirschkühen, den in der Gruppe häufigst vertretenen Tieren. Dieser Fund erweitert das Verbreitungsgebiet der sogenannten 'Gruppe der Ramales Schule', wie sie in Höhlen wie Arenaza, Covalanas oder La Pasiega vertreten ist, die alle Kunst enthalten, welche jener der neuen Gruppe von Malereien in El Pendo sehr ähnlich sind.

Resumen. En este artículo se presenta un nuevo conjunto de manifestaciones rupestres paleolíticas recientemente descubiertas en la Cueva de El Pendo (Región Cantábrica, España). El hallazgo consiste en 17 figuras realizadas en colores ocre rojo y siena y ubicadas en un friso de 8.8 m de largo y 3 m de alto. Las figuras son homogéneas técnica y estilísticamente y se ajustan a los caracteres propios de los conjuntos cantábricos asignables al estilo III de Leroi-Gourhan, con presencia de la técnica del tamponado y convenciones tan características como las orejas en forma de V en las representaciones de las ciervas, el animal más representado en el conjunto. Este hallazgo, amplía la distribución del denominado 'Grupo de la Escuela de Ramales', compuesto por cavidades como Arenaza, Covalanas o La Pasiega, conjuntos con los que las nuevas manifestaciones de El Pendo presentan enormes similitudes.

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