




Project Gallery

Cova Dones: a major Palaeolithic cave art site in eastern Iberia

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This article presents details of the recent discovery of Palaeolithic cave art in Cova Dones, Valencia. The preliminary results reveal a rich graphic assemblage with features that are unusual for Mediterranean Upper Palaeolithic art and were previously unknown for the Pleistocene in the eastern Iberian coast.

Key words: Mediterranean, Pleistocene, rock art, engraving/painting techniques, stylistic analysis

Introduction

Traditionally, the distribution of Pleistocene cave art has centred on the Franco–Cantabrian region with a ‘periphery’ including areas of southern Spain and Italy. More than 70 per cent of known Palaeolithic rock art sites are in this region; however, in recent years, there have been discoveries across Europe and Asia (for a compilation, see Ruiz-Redondo, [in press](#)). Discoveries outside the Franco–Cantabrian area are always relevant to enhancing knowledge of Palaeolithic symbolism.

Along the eastern Iberian coast, the situation is paradoxical. Although this area hosts the most important Pleistocene mobiliary art site in terms of decorated items (‘Parpalló’: Villaverde 1994), Palaeolithic cave art sites are sparse: nine are reliably identified as Pleistocene, with up to 21 possible in total (Villaverde 2020: 27). The low occurrence of painted figures is especially striking because there are only three, at most, in the combined territories of Valencian Community and Catalonia.

Preliminary results

In this context, the discovery of the Cova Dones rock art in the summer of 2021 contributes a great deal to the study of ‘graphic behaviour’ in the Mediterranean area. The site consists of a single-gallery cave, approximately 500m deep, that opens onto a steep canyon in the municipality of Millares (Valencia; UTM coordinates: 30S 692764X 4338785Y, 399m AMSL) ([Figure 1](#)). Despite some Iron Age finds (Aparicio 1976), the existence of Palaeolithic remains was unknown until an informal exploration in 2021 identified four painted motifs, including

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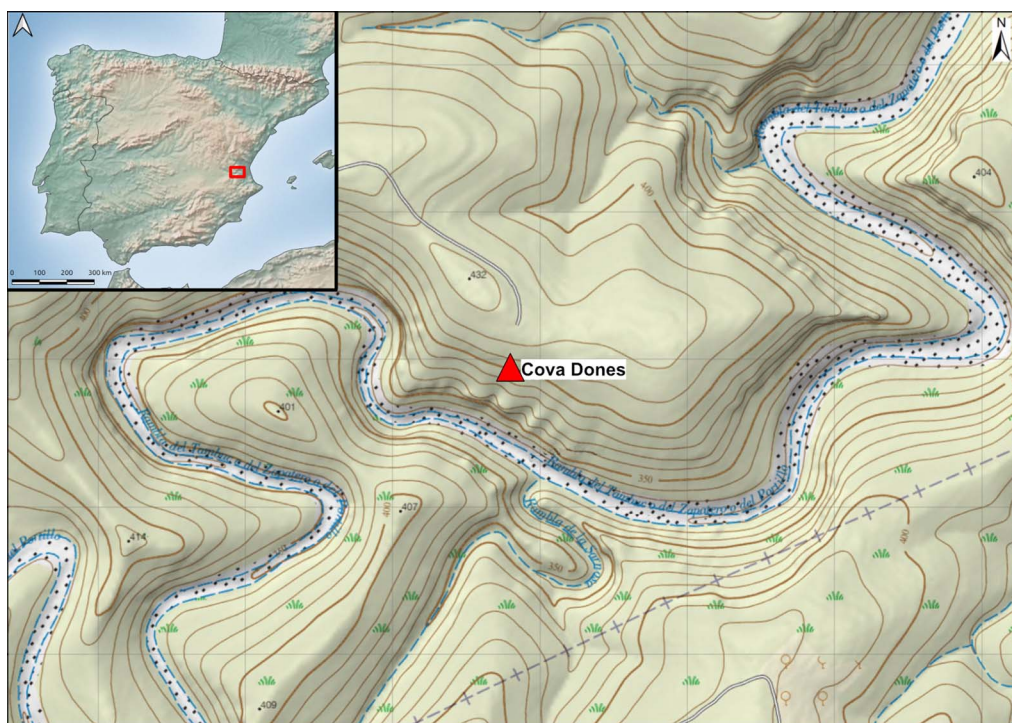


Figure 1. Location of Cova Dones (figure by the authors).

an aurochs head (Figure 2a). Further work in 2023 allowed us to identify the site as a major Palaeolithic art sanctuary, given the quantity and variety of motifs and the richness and detail of its technical features.

So far, we have identified more than 110 graphic units, including at least 19 zoomorphic representations, located in three different zones of the cave. Despite being deep inside the cave (the main decorated area is approximately 400m from the entrance), all zones, and the panels and figures they contain, are easily accessible without any climbing required. The depicted animals are seven horses, seven hinds (female red deer), two aurochs, a stag, and two indeterminate animals. The rest of the art consists of conventional signs (rectangles, meanders), several panels of ‘macaroni’ (‘flutings’ made with either fingers or tools dragged across a soft surface), isolated lines, and poorly preserved unidentified paintings.

The variability and rarity of the technical features of the artworks are noteworthy because the assemblage includes different types of engravings and paintings. The engravings comprise the classic single-trait outlines of figures (Figure 3a), but also figures shaded by scraping the *mondmilch* (a type of limestone precipitate) on the surface of the walls (Figure 3b). This technique is rare in Palaeolithic cave art and previously unknown in eastern Iberia. The painting technique is no less surprising; motifs were created through the application of red clay on the walls, instead of the usual diluted ochre or manganese powder (Figure 2b–c). This iron-rich clay is abundant on the floors of the cave. Examples of such technique are known in the Mediterranean area and beyond (e.g. Ardales, Bernifal, Higuerón, La Pasiega, Pileta,

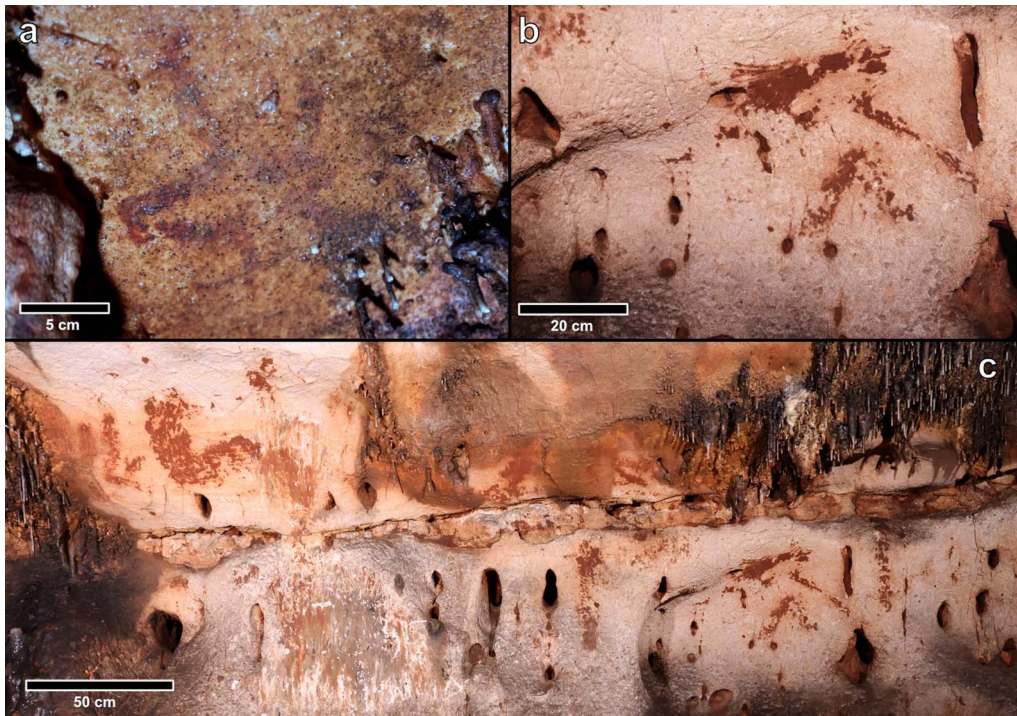


Figure 2. a) painted aurochs head; b) horse head made with clay; c) panel with several motifs painted with clay, including animals and signs (some partly covered by calcite layers) (figure by the authors).

Rouffignac), but they are rare in all of these sites (except at La Baume Latrone). In Cova Dones the entire painted corpus (>80 graphic units) is made using this technique.

Chronology

The figures painted with fresh clay are rare and their dating is notoriously difficult. In Cova Dones, the antiquity of the paintings is supported by the fact that the applied clay has had time to dry in a wet environment and, especially, by the presence of thick calcite layers which cover different areas of several figures (Figure 4a).

The age of the ‘macaroni’ is also generally difficult to assess. The simplicity of the technique used to create them makes it hard to attribute them to the Palaeolithic with certainty, although longevity can be assumed because of the occurrence of weathering processes (i.e. patinas). In Cova Dones, other evidence indicates the Palaeolithic age of some of these marks. The walls of the cave have some cave-bear claw marks scattered around. One of them partially overlaps some finger flutings (Figure 4b). The suggested extinction date in Europe for this species at c. 24 ka cal BP (Terlato *et al.* 2018) provides a *terminus ante quem* for this panel.

Even before a more detailed chrono-stylistic analysis takes place, some features can help establish the site’s chronology. ‘Mediterranean trilinear hinds’ are well-known motifs in Mediterranean Palaeolithic art (Fortea 1978). In Nerja cave (Málaga, Spain) a radiocarbon

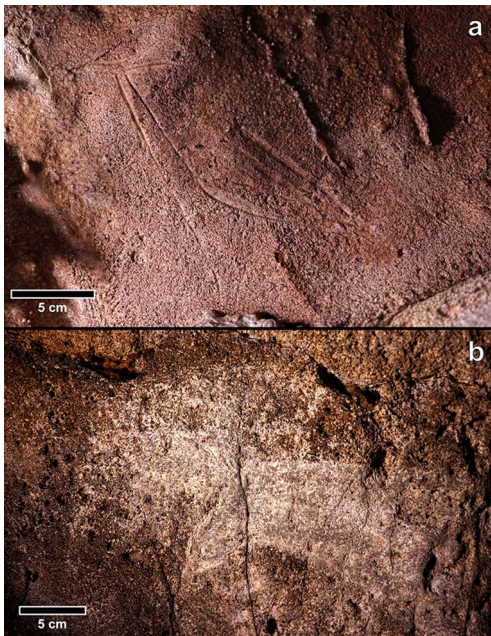


Figure 3. a) engraved 'Mediterranean trilinear hind'; b) two horse heads scraped on the wall surface (figure by the authors).

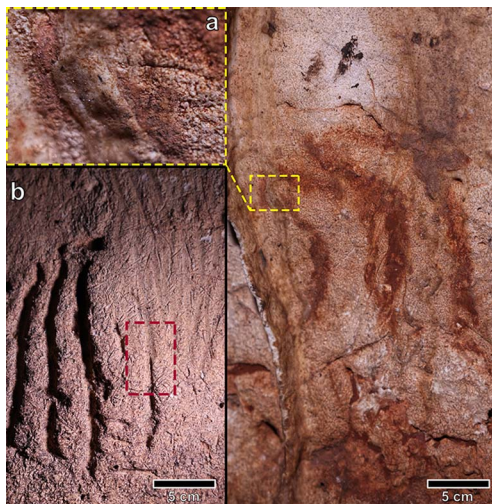


Figure 4. a) detail of a thick calcite layer partly covering a hind's head; b) detail of a bear-claw mark overlapping some finger flutings (figure by the authors).

research confirms its potential. Future work will continue surveying the cave walls and will focus on the apparently unique technical aspects of the rock art as well as its chronology and archaeological context.

date was obtained for a panel that has one of these representations (Sanchidrián *et al.* 2001). The result (GifA-98191: $19\,900 \pm 210$; $24\,545\text{--}23\,680$ cal BP (85.2% probability, using IntCal20)) indicates a chronological attribution around the Gravettian–Solutrean transition (*c.* 26–24 ka cal BP). Rectangular signs are not a ubiquitous motif throughout the Upper Palaeolithic. For the nearby site of Parpalló, it is suggested that these images are dated to 24.5–21.1 ka cal BP based on their stratigraphic position in the sequence (Villaverde & Cantó 2020: 299). They show no discrepancies with the other rectangular signs present in Mediterranean Iberian Palaeolithic art (e.g. Comte, Nerja, La Pileta, Las Motillas, Las Estrellas and Ambrosio). Lastly, the style of the aurochs and horses—despite not being entirely diagnostic—can be used to assess the paintings' age. Stylistic analysis of the figures points to a pre-Magdalenian age (>20 ka cal BP) and, considering the date for the extinction of the cave bear, we estimate that at least part of the rock art must be more than 24 000 years old.

Conclusion and future work

The Cova Dones rock art is a key discovery in Mediterranean Palaeolithic art. While the project is still in its early stages, preliminary results reveal an enormous potential for research at the site and establish this assemblage as arguably the most important for the eastern Iberian coast. Its iconographic and technical features make it one of the few major Pleistocene decorated sites of eastern Iberia; the recently discovered Cova de la Font Major (Morales *et al.* 2022) could also be included in this category if further

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Data availability

The authors confirm that the data supporting the findings of this study are available within the article. Raw data that support the findings of this study are available from the corresponding author on reasonable request.

References

- APARICIO, J. 1976. El culto en cuevas en la región valenciana. *Revista de la Universidad Complutense* 25 (101): 9–30.
- FORTEA, J. 1978. Arte paleolítico en el Mediterráneo Español. *Trabajos de Prehistoria* 35: 99–149.
- MORALES, J.I. *et al.* 2022. Palaeolithic archaeology in the conglomerate caves of north-eastern Iberia. *Antiquity* 96: 710–18.
<https://doi.org/10.15184/aqy.2022.34>
- RUIZ-REDONDO, A. In press. ‘Out of Franco-Cantabria’: the globalization of Pleistocene rock art, in O. Moro-Abadía, M. Conkey & J. McDonald (ed.) *Deep-time art in the age of globalization: understanding rock art in the 21st century*. London: Springer.
- SANCHIDRIÁN, J.L., A.M. MÁRQUEZ, H. VALLADAS & N. TISNERAT. 2001. Dates directes pour l’Art Rupestre de l’Andalousie. *INORA* 29: 15–19.
- TERLATO, G., H. BOCHERENS, M. ROMANDINI, N. NANNINI, K.A. HOBSON & M. PERESANI. 2018. Chronological and isotopic data support a revision for the timing of cave bear extinction in Mediterranean Europe. *Historical Biology* 31: 474–84.
<https://doi.org/10.1080/08912963.2018.1448395>
- VILLAVARDE, V. 1994. *Arte paleolítico de la Cova del Parpalló*. Valencia: Servei d’investigació prehistòrica.
- 2020. Avances en el estudio del Arte Rupestre Paleolítico del Mediterráneo Ibérico, in J.A. López & J.M. Segura (ed.) *El Arte Rupestre del Arco Mediterráneo de la península Ibérica*: 27–44. Alicante: DGCP.
- VILLAVARDE V. & A. CANTÓ. 2020. Les signes quadrangulaires dans la collection d’art mobilier de Parpalló, in E. Paillet, P. Paillet & E. Robert (ed.) *Voyages dans une forêt de symboles*: 295–302. Treignes: Cedarc.