

EL NIÑO CAVE (AÝNA, ALBACETE, SPAIN): LATE MIDDLE PALEOLITHIC, ROCK ART AND NEOLITHIC OCCUPATIONS FROM INLAND IBERIA

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ABSTRACT

El Niño cave, located in the south-eastern border of the Spanish *Meseta*, hosts a discontinuous sequence including Middle Palaeolithic and Neolithic levels, along with Upper Palaeolithic and Levantine style paintings. It is a key site for understanding human occupations of inland Iberia during the Palaeolithic and the Early Prehistory. This paper summarises the main results of a multidisciplinary project aiming at defining Prehistoric human occupations at the site.

KEYWORDS: Middle Palaeolithic, Neolithic, Palaeolithic rock art, Levantine style rock art, inland Iberia

INTRODUCTION

In contrast to other Spanish regions, inland Iberia, mostly defined by the *Central Meseta* (plateau), is characterized by a reduced number of Palaeolithic sites, especially from the Upper Palaeolithic (Straus 2018), despite recent discoveries (Casalheira *et al.* 2020; Yravedra *et al.* 2016). Many of these sites correspond to open-air finds. In this framework, El Niño cave (Aýna, Albacete), located in the *Sierra de Alcaraz* on the south-eastern border of the *Central Meseta* (Fig. 1), constitutes a key site, hosting one of the few Palaeolithic sequences of the region, along with Palaeolithic and post-Palaeolithic rock art.

FIGURE 1 HERE

The site was first published in 1971 (Almagro-Gorbea 1971), concentrating on the Upper Palaeolithic rock art and the Levantine Style Art at the site. In 1973, fieldwork directed by Davidson documented the archaeological deposit (Higgs *et al.* 1976), evidencing the human use of the cave during the Middle and Upper Palaeolithic and the Late Prehistory. The results of the excavation were included in Davidson's PhD (Davidson 1981) but were not published, and the site remained almost unknown. For this reason, since 2008 we conducted a comprehensive review of the site, through the study of the Palaeolithic paintings, the analysis of the archaeological materials, and a dating programme (García-Moreno *et al.* 2016).

The aim of this paper is to present El Niño cave to a broader, international audience, due to its potential for approaching Middle Palaeolithic, Upper Palaeolithic and Neolithic human settlement in inland Iberia.

ARCHAEOLOGICAL SITE

The site is located at 812 m.a.s.l. in the *Barranco del Infierno*, part of the *Mundo* river canyon, a tributary of the Segura river (Fig. 2). At the cave opening is a small rock-shelter, where Levantine style paintings are located. The cave itself is about 60 meters long and oval in shape, with a speleothem formation dividing it into two chambers; the outer of which hosts the main panel of Palaeolithic paintings.

FIGURE 2 HERE

Fieldwork in 1973 (Davidson 1981; Davidson & García-Moreno 2013) focused on two trenches outside the cave entrance (Trenches 1 and 2). A discontinuous sequence of eleven archaeological levels was defined. Levels XI (base) to III-IV correspond to the Middle Palaeolithic. Levels II and I appear to contain mixed assemblages, with both Middle Palaeolithic and post-Palaeolithic materials, and a wide range of dates, arguing against the archaeological integrity of these upper levels (García-Moreno *et al.* 2014).

A further two test pits were dug: one at the foot of the Levantine paintings (TAL, for *Trincheras Arte Levantino*), where a Neolithic sequence was identified (García-Moreno *et al.* 2015), and another below the main panel of Palaeolithic paintings, yielding a small collection of undiagnostic lithics and several faunal remains.

MIDDLE PALAEOLITHIC

Most archaeological remains from Trenches 1 and 2 came from Levels XI and the unit formed by III-IV, corresponding to two Middle Palaeolithic occupation phases.

Level XI was dated by Amino Acid Racemization (AAR) on an *Equus* molar at 55,55 ka (LEB-9570). The lithic assemblage is characterized by a variety of reduction sequences on flint (Levallois and Quina) and quartzite (Discoid and Quina), resulting in large retouched flakes transported to the site and resharpened *in situ*. Lithic tools comprise two retouched flakes and three sidescrapers (Fig. 3a). The fauna is dominated by horse (*Equus sp.*), followed by ibex (*Capra sp.*) and red deer (*Cervus elaphus*). Whereas ibex is still common in the steep immediate landscape, the presence of horse and other large ungulates, such as aurochs or rhino, also evidences the exploitation of open plains. Level XI also provided 17 plant remains, corresponding to mineralised endocarps of *Celtis tp. australis* fruits, which may have been consumed by Neanderthals (Fig. 4). Together, evidence suggests Neanderthal occupations during this phase involved the exploitation and transport of distant resources, and the ramification of *in situ* lithic production through Quina technology.

Due to the lack of collagen, bone apatite from Level III-IV was dated by radiocarbon at 33,380 – 32,250 cal BP¹ (UGAMS-7739: 28,660±90 BP) and 32,910 – 31,920 cal BP (UGAMS-7737: 28,270±80 BP), too young for Middle Palaeolithic (Higham et al. 2014). Despite the apparent consistency, these dates provide minimum age estimates as young carbonate cannot be fully removed from bone apatite and ages are nearly always erroneously young (Wood et al. 2013). In contrast with Level XI, local quartzite is largely dominant over flint. Three series of refits (Fig. 3b) demonstrate quartzite cobbles were knapped *in situ* following a Quina production schema. There is also evidence of cordal Discoid and Levallois knapping on quartzite, producing typical Levallois flakes and Pseudolevallois points. Flint was introduced as final tools, such as a Mousterian point, two sidescrapers and Levallois flakes (Fig. 3c). Fauna was limited to a few remains, poorly preserved, corresponding almost exclusively to *Capra sp.* In this case, evidence points towards a shift in subsistence strategies compared to earlier occupations, based on the immediate exploitation of local resources, including *in situ* knapping of local quartzite and transport of flint tools.

FIGURE 3 HERE

FIGURE 4 HERE

UPPER PALAEOLITHIC PAINTINGS

Cave art attests the use of the site during the Upper Palaeolithic. The main panel, located in the half-light of the outer chamber, includes nine figures comprising typical Palaeolithic representations: two male and three female deer, two ibex, one bovid and one horse (see Garate & García-Moreno 2011 and the discussion of scenes in Palaeolithic art in Davidson 2021 for a detailed description of the composition of the panel) (Fig. 5). The test pit below the panel contained a small layer of ash with a few bones, with the apatite of one dated by radiocarbon at 27,280 – 27,020 cal BP (UGAMS-7738: 22,780±60 BP), which is consistent with a Late Gravettian and/or Solutrean attribution to the paintings or, at least, some of them (Garate & García-Moreno 2011).

FIGURE 5 HERE

A second panel, found in a small side gallery of the inner chamber, includes two small partial figures of a horse and an ibex, and a snake, made of parallel, sinuous lines, with interior rings in its upper half.

The characteristics and motifs relate El Niño rock art to the Cantabrian and Mediterranean regions, and imply the connection between these areas during the Upper Palaeolithic.

NEOLITHIC

Evidence of post-Pleistocene occupations was found in the upper levels of Trenches 1 and 2, mixed with older materials, and mainly in a test pit below the Levantine paintings, where a sequence of five archaeological levels was identified (García-Moreno *et al.* 2015). Bone collagen from Level IIb was radiocarbon dated at 5060 – 4840 cal BC (GdA-2102: 6065±40 BP). Lithic industry is consistent with a Mesolithic and/or Neolithic age, made mostly of flint, and characterized by microblade technology,

including four geometric microliths (Fig. 6a). A polished adze was found out of stratigraphic context (Fig. 6b).

Pottery technology can be attributed to the Early Neolithic (Martí-Oliver 1988). All fragments were handmade, most of them fired in a mixed firing (Cubas *et al.* 2020). Decorations are scarce, usually consisting of plastic applications, such as lugs and cordons, or incisions (Fig. 6c) (Cubas *et al.* 2016). The vessel morphologies identified suggest pottery was used for food storage. Several potsherds of Bell Beaker pottery confirm the use of the cave also during the Chalcolithic.

FIGURE 6 HERE

Ungulate remains mostly consist of ovicaprids, either goats or sheep. A significant number of rabbit (*Oryctolagus cuniculus*) remains were also found, as is usual in Mediterranean Spain.

The site also contains post-Palaeolithic paintings, located over the outer wall of the cave entrance. The panel, assigned to Levantine style, is composed of ten human representations.

Taken together, current evidence suggests Neolithic occupations at El Niño related to pastoralism, possibly as part of a transhumance system combining the open lowlands and the mountainous highlands of the Segura river basin (Davidson 1980).

¹ All radiocarbon dates have been calibrated against IntCal20 (Reimer *et al.* 2020) in OxCal 4.4 and are reported at 95% probability.

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FIGURE CAPTIONS

Figure 1. Location of El Niño cave.

Figure 2. Aerial view of the cave's entrance and its landscape (Photo: Cineproad S.L.)

Figure 3. Middle Palaeolithic industry: a) Level XI; b) refits from Level III-IV; c) Level III-IV.

Figure 4. Endocarp of *Celtis sp. australis*.

Figure 5. Main panel of Palaeolithic paintings.

Figure 6. Neolithic knapped (a) and polished (b) lithic industry and pottery (c).

FIGURE 1

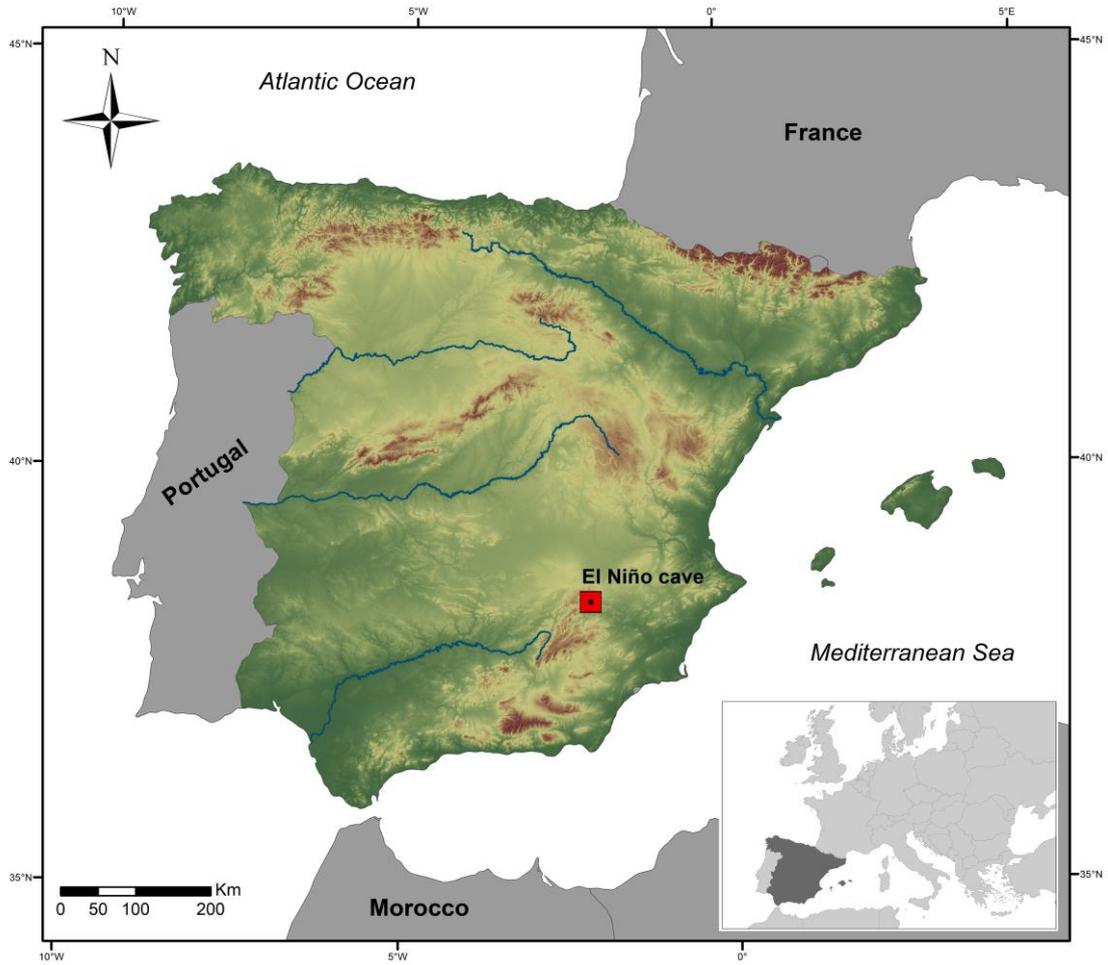


FIGURE 2



FIGURE 3

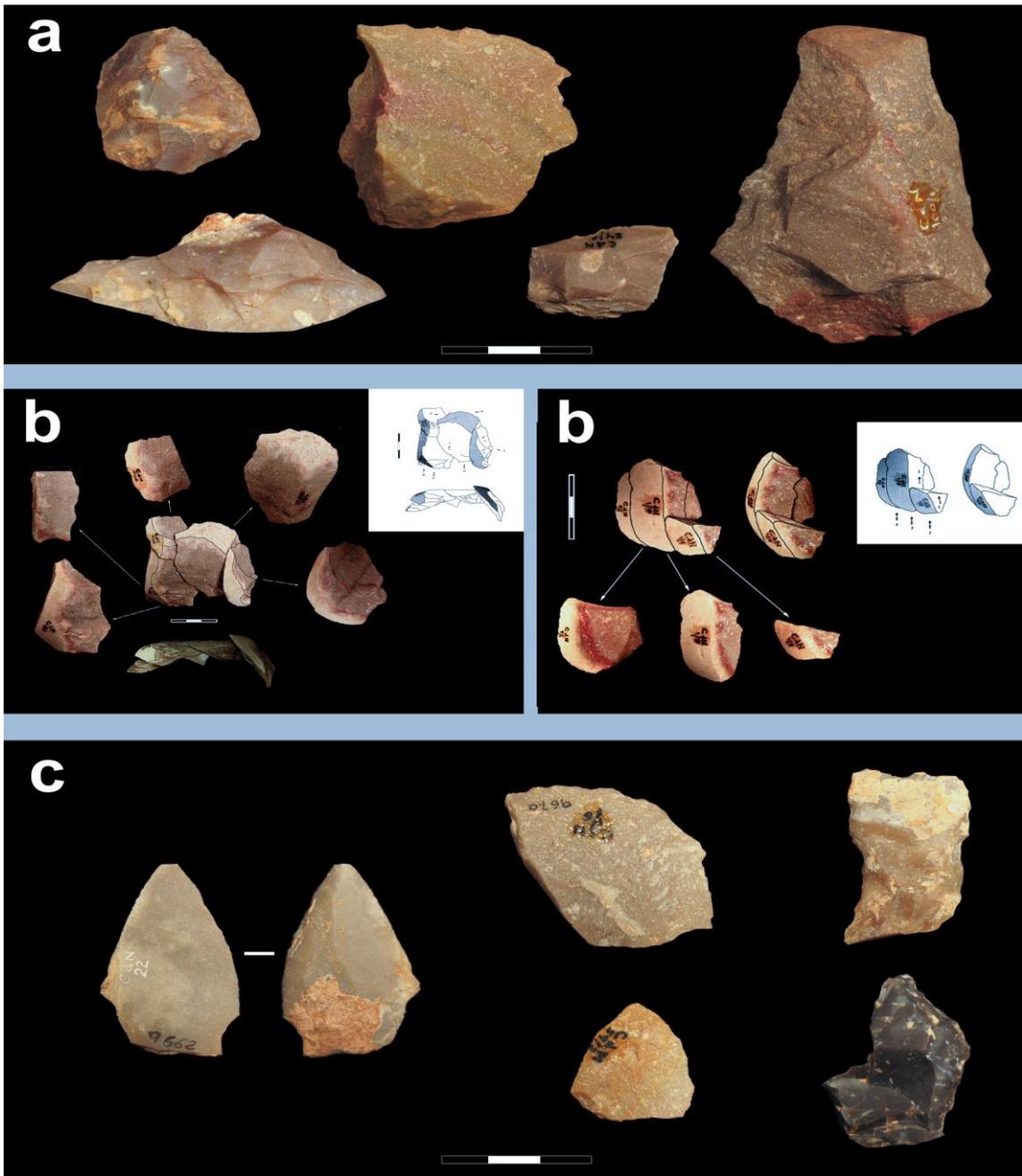


FIGURE 4



FIGURE 5

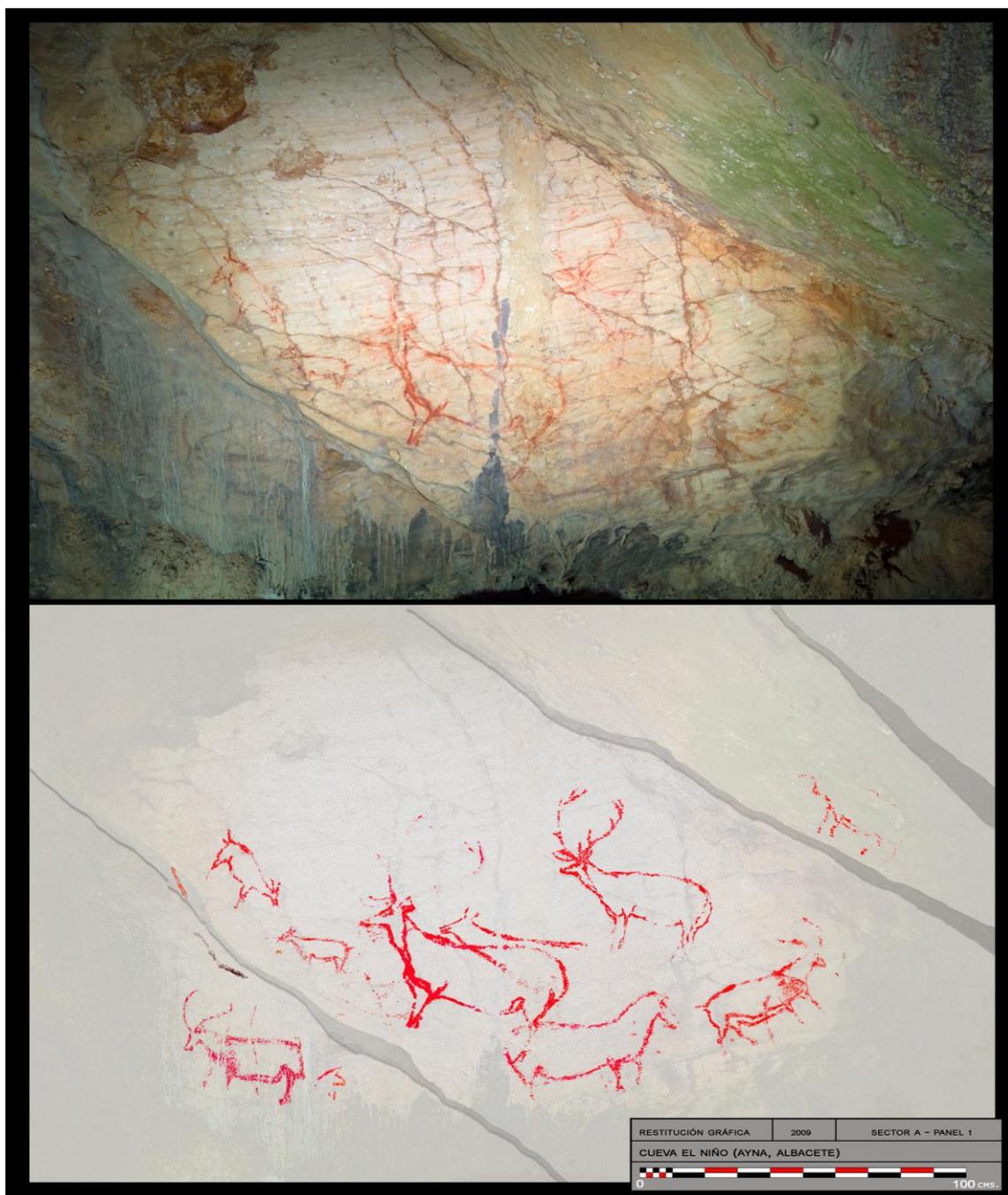


FIGURE 6

