

terminated morphology (such as *Levallois*) are not documented, and retouched flakes do not show any standardized or regular configuration. Thus, the available data, broadly interprets the lithic assemblage of La Cansaladeta as Acheulean, a collection where large sized tools are clearly in the minority.

Faunal remains

Animal remains were recovered from eight levels, being levels J, K and L, those that gather the vast majority of the faunal record. The osteological collection is characterized by two main trends: the small size of the fossils, and its intense postdepositional alteration. Obviously, the assemblage represents only a small percentage of the whole animals set that might have been deposited during the occupations. This fact limits the information that archeofaunal remains can provide. Nonetheless, different taxa have been

identified: *Leporidae* remains at levels I, J, K, and L; *Cervidae* bones at levels K, and L; one *Equidae*, one *Rhinocerotidae* and one fish remains at level J; as well as the above-mentioned porcupine at level L. Some of these bones present butchering cut marks and intentional breakages that have an anthropic origin.

Fire is responsible for the most common alterations in La Cansaladeta faunal assemblages (specially at levels D and L). With some exceptions, intensity of burning damage has been rather medium and did not reach maximum degrees of white calcined bones. This heat alteration has also been identified in lithic artefacts (especially at levels C and D, and to lesser extents, at levels E, J, and K), as rubified areas, fine fire cracks and thermal debris. Although no charcoal fragments or hearths were documented at the site, the amount of burned items, and their iteration along the stratigraphic sequence, suggests that they were the result of human activity rather than natural fire effects.

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La Cativera (El Catllar, Tarragona). A Pleistocene-Holocene interface site in southern Catalonia

The Cativera archaeological site (El Catllar, Tarragona) (Fig 1), is in a small open shelter on the left bank of the Gaià River, roughly 70 m above sea level. The shelter, at the base of a Miocene calcarenite wall, is 23m wide, with a maximum height of 3 m and a current depth of at least 3 m.

Stratigraphy and chronology of occupations

The stratigraphic succession is approximately 2 m deep, divided into 8 archaeological levels, identified from base to top as A, B, Bb, C1, C2, C3, C3b and C4, the 7 geoarchaeological units distinguished on the basis of sedimentary and pedo-

logical criteria (Fig. 1). The top section, including levels A, B and Bb, consists of a calcareous breccia with a silty-loam matrix built up from fragments of the ceiling and fine sediment on the slope. The sedimentation of the middle and base part, corresponding to the rest of the archaeological levels, is originated in the cyclical alluvial processes associated with the activity of the Gaià River (Angelucci, 2003, 2005).

Charcoal sample datings are consistent with the stratigraphic sequence, and situate the site's chronocultural sequence between the final stages of the Pleistocene and the start of the Holocene

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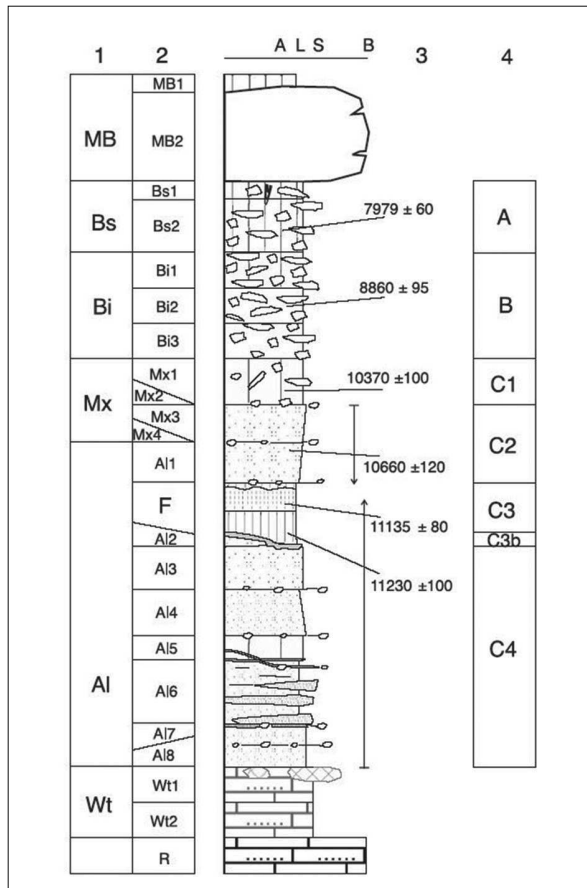


Figure 1. Frontal view of the Cativera deposit

Level	Lab. Ref.	Material	C14 BP Data
A	MAD-4645BIN	Ceramic	4645± 316
A	AA-23367	Charcoal	7979 ± 60
B	AA-23368	Charcoal	8860 ± 95
Bb	Beta-281623	Charcoal	8230± 40
C1	AA-23369	Charcoal	10370 ± 100
C2	AA-23370	Charcoal	10660 ± 120
C3	AA-23371	Charcoal	11230 ± 100
C3b	AA-23372	Charcoal	11135 ± 80

Table 1. La Cativera site datings

Archaeological material

The archaeological items found on all levels consist of lithic industry, iron oxides –not documented on level A–, marine and terrestrial

malacofauna, charcoal, fauna and mobile art on level C4. However, there are significant typological differences between the material on level A and the rest of the archaeological levels. The flint and limestone lithic material is by far the most abundant on the levels, although the latter material is in a much smaller proportion. Flint is only involved in the tool production and configuration sequences, while limestone is functionalized directly, without modification. Despite this homogeneity in the use of raw materials through the levels, Level A is predominated typologically by notches and denticulates, and thus referred to as configured items with simple reduction sequences intended for flakes (Fontanals *et al.*, 2009), while in the rest of the sequence, the exploitation systems are predominantly aimed at producing blade-like products, the majority of which were endscrapers and blade/backed blades (Morales *et al.*, 2012, 2013). This profile seems to indicate that in all the occupations, the raw materials were supplied from the terraces of the Gaià River, quite close to the settlement. This source was abundant but generally did not provide good quality material. The average length of the items was never more than 15 cm, and less than 10 cm in the case of good knapping material (Fontanals 2001). Abundant remains of marine mollusc fauna were found at the site, no doubt influenced by its proximity to the coast. To date, 18 different species have been documented. This variation is particularly broad on levels B and Bb, where specimens were clearly used for at least three differentiated purposes: consumption (*Mytilus galloprovincialis* and *Patella caerulea*), ornaments (*Dentalium vulgare* and *Cyclope sp.*) and as a container for ochre (*Glycimeris insubrica* and *violascens*). This differentiated use of marine mollusc fauna is less obvious on level A, where the documented species, judging by their features, seem to have been brought to the site for consumption, as indicated by the presence of *Patella caerulea* and *Cerasthoderma glaucum*, the latter quite abundant, unlike level B, although other secondary uses must not be excluded, as in the case of *Pecten jacobaeus* and *Insubrica Glycimeris*, despite the absence in this case of traces of ochre inside the valves found in assemblage B. Items from several species of terrestrial mollusc fauna have also been documented. On level C3, 21 *Cepaea nemoralis* shells suggest the use of this species as a food source.

The faunal record is quite scarce on all levels and the recovered remains are poorly preserved. This is probably due to the high acidity of the sediment in the rock-shelter and post-depositional taphonomic disturbances to the archaeological remains, mainly caused by roots (Allué et al., 2000). Nevertheless, various skeletal parts of *Leporidae* and *Cervidae* taxa were identified on levels A, B and Bb. Despite the above-mentioned bias in the record due to poor preservation, the number of *Leporidae* items is clearly much higher than others, permitting the assumption of its priority for consumption. Remains of burned wood fuel have been recovered throughout the sequence, although the sample is only representative on the levels excavated horizontally. Several species have been identified, many of them common to levels A, B and Bb, such as *Pinus sp.*, *Pinus alepensis*, *Juniperus* and *Quercus ilex/coccifera*. Their differing degrees of presence on each level and the presence/absence of other species, such as the presence of *Acer sp.* on level A alone and the abundance of conifers and *Juniperus sp.* on levels B, Bb and C1, are proof of climate variations between the different occupation periods.

Different evidence of the use and processing of iron oxide has been documented in these series, with the exception of level A. Fragments of this mineral have been found, mostly burned or impregnated in the surface of different species of marine mollusc fauna, a considerable

number of endscrapers and some natural limestone blocks. It also appears in patches in the sediment. The use of this mineral has also been detected on level C4, where remains of staining material concentrated in the centre of a limestone pebble has been identified, with a set of straight and curved red lines connected physically.

Conclusions

The chrono-cultural sequence in the Cati-vera rock shelter has provided reference data for the study of the cultural processes between the Late Glacial and the early Holocene in north-eastern Iberia. This period has been subject to reinterpretation since the emergence of new archaeological records which, in conjunction with the revision of existing assemblages and datings, permits the construction of a scenario in which the apparent persistence of micro-blade techno-complexes until the start of the Holocene overlaps with the few sauveterroid records, coinciding with the Pleistocene-Holocene transition and an increasingly numerous and better defined sets of notches and denticulates, evidence of a clear temporal and cultural break. The background to this cultural and chronological discontinuity can only be interpreted with new archaeological data and their social, economic and demographic interpretation.

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Cinglera del Capelló sites
(Capellades, Barcelona)

Cinglera del Capelló is a 1.5 km long travertine scarp on the right bank of the Anoia River, Capellades, Anoia District, Barcelona Province. At this point, the Anoia River cuts through Cat-

alonia's pre-coastal mountain range in a gorge (Capellades Narrows), a natural link between the inland districts of the Ebro Depression and the Catalanian Pre-Coastal Depression. There are

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