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The Mesolithic with geometrics south of the 'Picos de Europa' (Northern Iberian Peninsula): The main characteristics of the lithic industry and raw material procurement

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ABSTRACT

This study presents the main features of the lithic industry we have termed 'Mesolithic with geometrics'. It has been observed at two cave sites, El Espertín and La Uña (levels III and IV), both located on the southern versant of the Cantabrian Range, and with chronologies ranging from the second half of the 7th millennium cal. BC to the end of the 6th millennium cal. BC. This work will focus on the characterization of the raw materials and the evaluation of their sourcing patterns. Also, a techno-typological study of the lithics, focusing on the retouched tools, will be presented. The two caves show a number of similarities, such as their altitude (more than 1200 m.a.s.l. in both cases) and their small size. As for the lithics, the raw materials used and the scarcity of geometrics are much the same, and they also share a lithic industry with deeply-rooted archaic features linked to the Upper-Palaeolithc/Azilian regional tradition.

1. Introduction: the post-Palaeolithic world south of the 'Picos de Europa'

Knowledge of the Mesolithic period in the Iberian Peninsula is very uneven. In the Mediterranean watershed and the Ebro valley the sequence begins with microlaminar-type assemblages followed by a phase referred to as the 'Notched and Denticulate Mesolithic'. Following this, the development of the so-called 'Geometric Mesolithic' can be noted (Alday and Cava, 2009; Martí Oliver et al., 2009; Utrilla et al., 2009), which corresponds to the recent or final phase of the Mesolithic, and which can also be found in the Portuguese area (mainly the Muge and Sado estuaries) (Carvalho, 2009). This period spans from the 7th to the 6th millennium cal. BC. The most characteristic trait of this phase's lithic assemblages is precisely the high frequency of geometric microliths in relation to the retouched assemblage, which includes other tools such as scrapers, burins, borers/piercers, notches and denticulates, pieces with continuous retouch, etc.

The initial stages of the Holocene are well-known for the Cantabrian Range, represented by Azilian Epipalaeolithic assemblages, which are followed in the central third of the region by the Asturian Mesolithic (shell middens) (Fano and González Morales, 2004), confined to the coastal areas and largely contemporaneous with the Geometric Mesolithic. There are, however, other Mesolithic occupations contemporary with the Asturian, both in the coastal and the mountain interior of the Cantabrian Range, and which are yet not well-defined.

The Picos de Europa, with altitudes in excess of 2500 m.a.s.l., form the central and highest mountain massif of the Cantabrian Range, which, in turn, represents the geological extension of the western Pyrenees. North of this massif, this latter period is represented at a number of interior sites with Mesolithic burials and occupations, such as Los Canes and Arangas (Cabrales, Asturias) (Arias and Pérez, 1995; Arias and Ontañón, 1999). South of the Picos de Europa, the presence of a small group of post-Palaeolithic sites has been noted. The small cave of La Mina (Dobarganes, Vega de Liébana, Cantabria), located at 938 m.a.s.l., represents the oldest reference and its lithic remains have been ascribed to the Azilian (Vega Gómez and Herrero Ortuño, 1992) or the Mesolithic (Arias Cabal, 1996). This lithic assemblage, however, was recovered by an amateur archaeologist during a test excavation, from which no

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stratigraphy has ever been published, which makes it difficult to assess the assemblage's integrity. The La Calvera rockshelter (Camaleño, Cantabria), 1120 m.a.s.l., has also produced C^{14} dates attributed to the Azilian and to the Mesolithic, although the number of lithic remains recovered from within it is rather scarce (Díez Castillo, 2005). It is worth noting the presence of a 'burial' site, La Braña-Arintero cave, in the León province of Spain, where the remains of two Mesolithic males were deposited, but not buried, in the cave's interior (Vidal Encinas et al., 2008; Vidal Encinas and Prada Marcos, 2010). In addition to this site, there are two other Mesolithic occupation sites, which will form the basis of the present study and which are also located in the Cantabrian Range's interior (Fig. 1).

2. The sites

2.1. El Espertín Cave

El Espertín Cave (Cuénabres, Burón, León) is found in the southern versant of the Cantabrian Range, 3.5 km as the crow flies from the Duero-Cantábrico watershed, and close to some of the natural passageways that lead to the northern versant, although it is not situated on any of the natural N–S communication routes. It is located in the middle of an area where the valley opens up between two narrowings, at 1230 m.a.s.l., on a limestone outcrop located halfway up a hillside, and has a SE-facing entrance. The position of the cave, in the centre of a narrow and secondary valley, results in a very reduced visual control of the landscape, which is limited to the area of the valley between the two narrowings and, partially, to the upper parts of the slopes located upstream as shown in Fig. 2, which was obtained using ArcGIS ver. 10.2.

El Espertín is a small cave, comprising a *c.*25 m^2 entrance area. In terms of the stratigraphy, the site only possesses a single archaeological level (II), which was excavated extensively between 1991 and 1997. This level, with a maximum depth of 25 cm, was overlaid by another archaeologically-sterile level (I), which has only been noted in the opening and the right section of the cave. Its absence throughout the rest of the site is due to intermittent water runoff that falls from the left wall, and which eroded and moved the sediment towards the interior, likely aided by the slope's widened opening. Together with the first, part of the lower archaeological level II was also eroded, especially in its left area and towards the centre of the entrance area. Both levels, however, remain intact on the right side and at the entrance (Neira Campos et al., 2004, 2006). As a result of this process, a portion of the materials are found *in loco,* but not *in situ,* even though their relationship with those originating from the intact area has been confirmed by means of lithic refittings containing pieces recovered from both areas. It is possible that these erosion episodes are responsible for the disappearance of likely structures as it was not possible to note the presence of any during excavation.

Two C^{14} dates have been obtained for this site. The first is a conventional C^{14} date derived from bones found at the base of

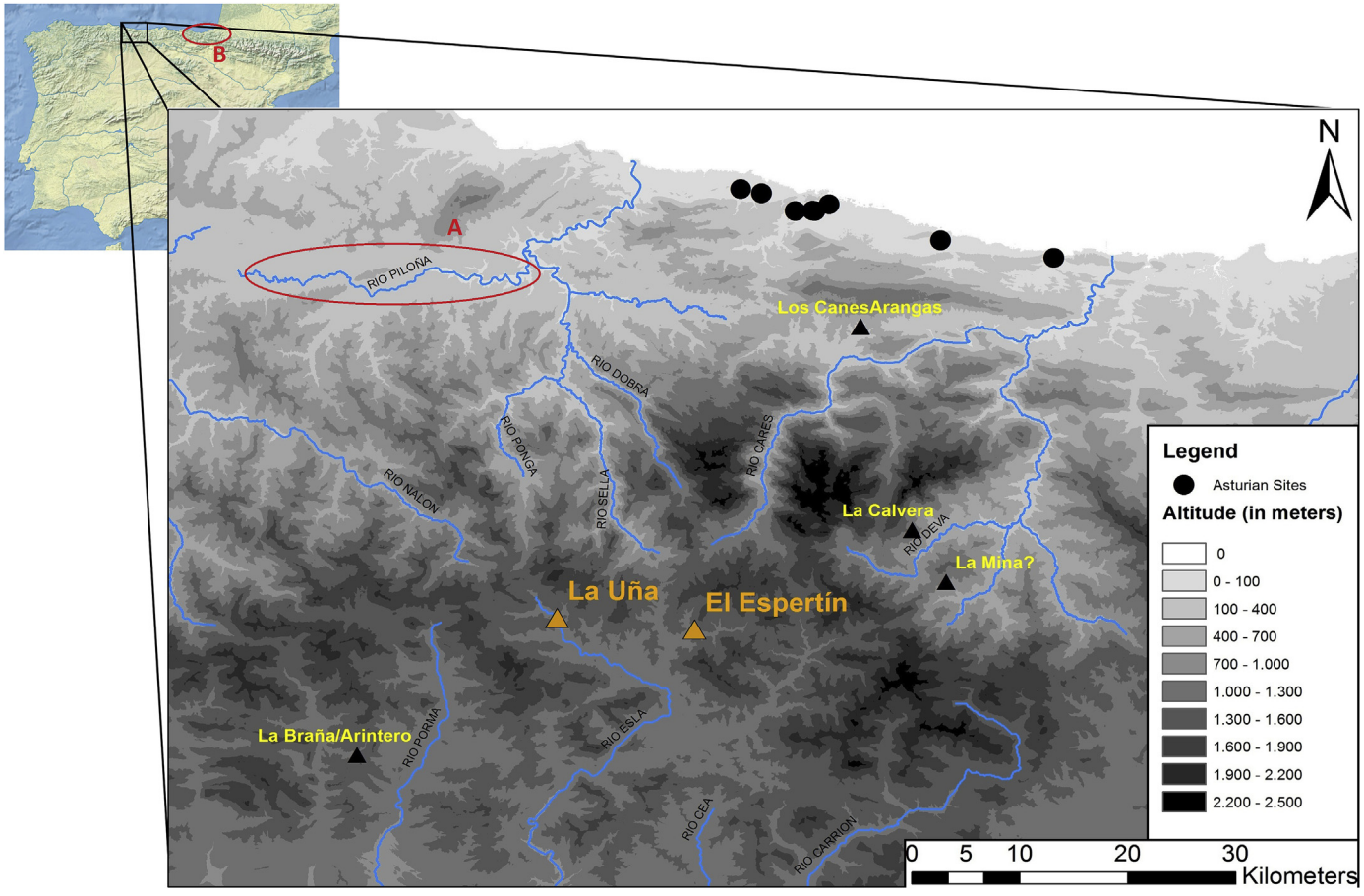

Fig. 1. Location of the main Mesolithic sites in the surroundings of the Picos de Europa. A: Piloña flint source area. B: Flysch flint source area.