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# Lithic raw material management at Mesolithic shell midden site of El Mazo (Asturias, Northern Spain)

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## Abstract

El Mazo is located in a rockshelter near the coast, in the province of Asturias (Spain). In this area, the Mesolithic is usually characterized by the presence of large shell middens belonging to the so called Asturian culture. Main characteristics of Asturian lithic industry are a small quantity of artefacts, high percentage of quartzite, presence of macro-tools (Asturian picks inclusive), flake production as main target, low percentage of laminar supports and limited repertoire of retouched tool types. Moreover, lithic origin of raw material is local, near the sites. However, not all these features are observed in El Mazo. Archaeological excavations at El Mazo have been carried out since 2009, and nowadays is a key site to provide new data for the discussion of lithic raw material management in this area and chronology. The aim of this work is to define the origin of lithic raw materials and their relationship with technology and typology. The resulting data will be crucial to evaluate the management of lithic resources by human populations during the occupation of the coastal Asturian Mesolithic site of El Mazo.

Lithic from the different stratigraphic units identified at the site were used for analysis. Data collection was carried out in several phases. First results of technological analysis showed that the "*chaînes opératoires*" have different degrees of integrity, depending on the raw material. Retouched industries, organized by Fortea's typology, are composed of notches, denticulates, endscrapers, sidescrapers/pieces with continuous retouch, truncations and geometrics. The study of raw materials focused on non-detrital crypto-microcrystalline siliceous varieties (chert, flint and radiolarite). For obtaining the data, the methodology used in this case was similar to the one used in other Mesolithic sites in the area, thus allowing the comparison of the results. All items were studied in a stereomicroscope, and later grouped into larger groups including all pieces with similar characteristics. Finally, these groups were compared with the "*LegioLit*" litotheque of the University of León and assigned to a geological formation of origin according to their characteristics: texture, inclusions and bioclasts. In general terms, most raw materials are from local origin (< 30 km from the site to outcrops), but some of them are from regional (30-120 km), and even extra-regional (> 120 km) origin.

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