1. The site

Abrigo del Molino archaeological site is located in the Eresma River valley (Central Spain). It consists of a shallow cave of fluviolastic origin, which has been completely filled in with detrital deposits. Archaeological works and the techno-typological characteristics of the lithic assemblage confirm the existence of three Mousterian levels at the site (MIS 3): Levels 2 (C+D), 3 (E+F+G), 7 (K), with a very interesting association between lithics and faunal remains.

2. Raw materials

Concerning lithic raw material procurement, most elements have an adjacent nature (quartz, granite, gneiss, diorite, some flints) and are easily found in the alluvial deposits of the Eresma River. The aim of our investigation is to find the provenience of some of the siliceous materials used at the site. The raw material procurement strategies suggest a complex mobility, where a preferential use of the site surroundings and a medium and long distance logistical planning within a wider territory would be combined.

Some test pits were made in the terraces and banks of Eresma River, in the surroundings of Abrigo del Molino, with the aim of characterising the ‘local raw material’ and their morphologies. The objective is to estimate the amount of local raw materials in the site, as well as the presence of exogenous raw materials (mainly different types of flint).

The different provenance of flint materials, semi-local (A) or allochthonous (B), allows to analyse the mobility patterns in relation to Abrigo del Molino’s catchment area. Thin sections were made on a selection of flint flakes from level 3 (E+F+G), in order to characterise the flints and their provenance.

3. Flint thin sections and provenience identification

*Authothonous (A).* These samples show regular and homogeneous patches of opal and microcrystalline quartz, with radial fibrous zebrac chalcedony lining former cavities, which were subsequently infilled with equant quartz crystals. Anhydrite fibrous to bladed crystals can be scarcely found. This flint can be found in the pediment of the Guadarrama mountain range.

*Allochthonous (B).* These samples are characteristic due to the homogeneous microcrystalline quartz groundmass with opaline patches. Macrocristalline quartz mosaics are often found. This flint can be found in the Miocene deposits in the Southern part of the Duero valley.

4. Catchment area and mobility patterns

We identified the outcrops of two types of flint that were unearthed at Abrigo del Molino. Flint A is 4 hours walking distance from the site in primary context, although it is possible to find it in a secondary position closer to the Abrigo del Molino. Flint B is more than 20 hours far away from the site.

The short-term Mousterian occupations of Abrigo del Molino contain a great diversity of raw materials, and most of them (approximately 80%) were found inside the 4 hour catchment area of the site, in the surroundings of the Eresma River valley.

The results show that the Neanderthal groups which occupied the site were highly mobile. Raw material procurement strategies implied a good knowledge of the resources not only of the catchment area of the Abrigo del Molino, but also of more distant areas.