Early Neolithic flint miners' diet insights in the Iberian Peninsula through an integrated archaeobotanical study

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Résumé

The Casa Montero site is located in the center of Spain, southeast of Madrid, at the edge of a plain that overlooks the confluence of two rivers, the río Henaras and Jarama. It consisted of a huge spread of by-products of flint industry and flint blades production, as well as 3794 shafts for flint nodules extraction of which 338 have been investigated, providing us with valuable information on the first Neolithic societies of the Iberian Peninsula. Indeed, based on 14C datating on bones and oak (*Quercus coccifera* L.) the use of the site has been dated precisely between 5300 to 5200 BCE, which would mean only four to five generations. The majority of the archaeological material recovered corresponds to lithic remains from the extraction and transformation of flint. However, some pottery was also found, along with bone objects, animal remains, charcoal, lumps of pigment and certain mobiliary art, all typical of the Early Neolithic in the Iberian peninsula. Many of the shaft fillings at Casa Montero included a few fragments of charcoal. Analyses indicate that the Neolithic groups who used the mine mostly burnt Holm/Kermes oak (*Quercus coccifera* L.) and juniper (*Juniperus* sp.), although they also had *Alnus* spp., *Prunus* spp. and *Viburnum tinus* at their disposal. The sediments filling the shafts also include pollen remains, but these are largely of pine, a species not represented among the charcoal fragments. Finally, starch and silicophytolith analyses have been carried out on ceramic fragments, as well as on sediments directly associated to the walls of the ceramics. Our results show that at least four different plants, among them cereals, legumes, acorns and sedges have been used as food in the pots. We could also identify several phytolith morphologies associated with plants that may have been used for the manufacture of tools, such as ropes or scaffolding, necessary for the silex extraction.
These results are important for little is known about Early Neolithic miner's foods and diets in Europe. This situation is mostly due to the lack of relevant materials to carry out analyses on, namely cooking pots, but also because archaeologists working on flint mines usually focus more on flint extraction and shaping technologies than on miner's working conditions and everyday lives.

Mots-Clés: phytolith, starch grain, residue analysis, Early Neolithic, diet, Southwestern Europe

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