

## PHYTOLITHS AS PALAEOENVIRONMENTAL INDICATORS

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**ABSTRACT:** the study of the sedimentologic characteristics and the description of quality and quantity of the silicophytoliths allowed the discrimination of the different pedologic horizons of the outcropping sediments in the south end of Sierra de San Luis. Records carried out in the area and based on the textural analysis, geobiochemicals (Ni, Cu, Pb and Zn) and content of phytoliths allow to identify four levels, two of them characterized by developing in edaphic-climatic conditions of ustic humidity regime similar to present day ones and linked to the Holocene; and two levels of arid regime related to the Late Pleistocene. The phytolith study indicates tenors that fluctuate in the 2% for the Aeolian sedimentary levels, where Prismaticolitas, Flabellolitas and Aculeolitas predominate inside the so-called macrosilicophytoliths. In the fraction of thin to medium silt the strobilolitas and doliolitas predominate followed by halteriolitas in a smaller proportion. In the palaeo-edaphic levels the quantity of silicophytoliths exceeds the 5% in relation to the total mineralogy. The macrosilicophytoliths present morpho-kinds similar in type and quantity to those in sedimentary levels although with a greater diversity. Articulated forms are common as a conspicuous evidence of the environmental stability that accompanied the development of these palaeosoils. Within the microsilicophytoliths there is an increment of halteriolitas in similar proportions to the Strobilolitas and the Doliolitas scarce. The silicophytoliths constitute themselves into a good indicator of the environmental conditions of the Late Pleistocene - Holocene.