

HUNTER-GATHERERS WOLF INTERACTIONS INCREASED IN THE FRANCO-CANTABRIAN GLACIAL REFUGEE DURING THE LGM BEFORE DOG DOMESTICATION

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Background: Hunter-gatherers in the Late Palaeolithic developed several cultural and technical innovations, among which dog domestication outstands. The complex process of wolf-dog domestication seems to have been developed in several sub-regions of Eurasia. Among these regions, the Franco-Cantabrian Fringe (FCF) in Western Europe outstands for having some of the oldest morphometrically and genetically identified dog remains. On this basis, the Magdalenian hunter-gatherers have been proposed to have played a role in dog domestication and its expansion through Europe more than 17,000 years ago. Human-wolf interactions are a prerequisite for dog domestication to occur.

Objective: Thus, with the aim of studying the FCF as a putative locus of domestication, we studied the archaeological register in search of human-wolf interactions.

Subjects and methods: We recorded all prehistoric wolf and dog occurrences in the Cantabrian Provinces in Northern Spain, both in the bibliography and in the archaeological deposit centres, from the Mousterian to the pre-Roman period. Additionally, we compared this data with data from other mammals, mainly hunted/consumed animals, in the same archaeological sites. Moreover, we studied the anthropic marks of a sub-sample of wolves and dogs representing all the main cultural periods.

Results: Our results show a sharp increase of wolf remains in human-inhabited caves during the Last Glacial Maximum (LGM) in the Solutrean and Magdalenian cultural periods, a parallel increase of mammals consumed by hunter-gatherers, and a marginal exploitation of wolf resources (e.g. food, teeth pendants) by hunter-gatherers.

Conclusion: Results are compatible with an increase in human and wolf cave co-habitation during the LGM, facilitating wolf-human interactions. Demographic and climatic factors may explain these dynamics, which predate dog domestication in the region. In conclusion, FCF human-wolf dynamics are compatible with dog domestication during the Magdalenian in a period that was the culmination of Western European hunter-gatherers culture.

Keywords: Magdalenian; Solutrean; Hunter-Gatherers; Domestication; Wolf.