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## **ABSTRACT BOOK**

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## Woolly mammoths (*Mammuthus primigenius*) in southern France during the Late Palaeolithic: a geo-chronological assessment based on the palaeontological, rock art and portable art records

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Woolly mammoths (*Mammuthus primigenius*) are characteristic components of the cold Pleistocene fauna of Western Europe. Found mostly in sites from the North European great plain, their geo-chronological distribution further south is less-precisely known due to the paucity of direct dating and palaeontological surveys.

Evidence for the presence of woolly mammoths during Marine Isotopic Stages MIS 4, MIS 3 MIS 2 and, possibly, MIS 1 is derived mainly from karstic contexts. The goal of our contribution is to survey the implications of their spatial and chronological occurrence in natural traps and anthropological sites; based on undoubted palaeontological and artistic evidence, we consider symbolism in the parietal and portable art of the main Late Palaeolithic cultures of southern France.

From a paleontological point of view, the woolly mammoth is present in faunal records during isotopic stages 4 and 3, in anthropological sites (rock shelters, caves) but this species does not constitute an important part of the food resources. The woolly mammoth is also identified in hyena dens and natural traps, with other tundra steppe Megaherbivores, in particular, the woolly rhinoceros (*Coelodonta antiquitatis*), especially during late MIS 3 and beginning of MIS 2. During MIS 2, the mammoth is still present locally but in a few archeological sites (eg: Solutrean of Laugerie Haute in Dordogne) then the question of its presence in the Southwest of France arises for all the Tardiglacial cultures (Magdalenians). Indeed, from the end of Solutrean, the mammoth is identified only from some (small) pieces of ivory and these paleontological elements were able to be transported from other geographical regions (Bahn, 1984; Clot & Duranthon, 1990; Delpech, 1983; Guérin, 1980). From the Dordogne to Pyrenees, there does not seem to be a convincing information on the presence of the mammoth from the stratigraphical, archaeological contexts and the radiocarbon dates after 15000 ky BP approximately.

In the rock Art and portable Art records, the geo-chronological distribution of the species is different. If the number of representations is approximately the same since Aurignacian until the Magdalenian (250 paintings and engravings for Aurignacian, Gravettian and Solutrean; 260 for the Magdalenian), differences are to be noted

concerning the frequency of sites yielding paintings and engravings of mammoth (29 for Early Upper Palaeolithic against 14 for the Magdalenian: Gély & Azéma, 2005). During the Aurignacian and/or Gravettian, the mammoth is common in several caves (Arcy/Cure, Chauvet Pont d'Arc, Baume Latrone, Pech-Merle) and become rare from the Solutrean. In the Magdalenian, only some caves of Dordogne (Bernifal, Combarelles, Rouffignac) contain important representations of mammoth (Gély & Azéma, 2005). In all other geographical areas, the mammoth is poorly represented in rock art. In the Magdalenian, there is a clear change, with an increase of representations on portable art (bone and ivory of mammoth engraved). The figuration of mammoths on portable supports could be explained by exchanges between Palaeolithics or by geographical movements by these human groups.

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