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ABSTRACTS: LECTURES and POSTERS

LIST OF PARTICIPANTS

to those currently prevailing on the Iberian ranges, implying a 10C decrease in temperature.

All the 14C dates from Cova de les Cendres have been obtained on charcoals and seeds previously identified botanically. At Middle Magdalenian level, charred seeds of *Juniperus sabina*, mineralised nutlets of *Lithospermum* cf. *arvense* and charcoal of *Ephedra* sp. have been dated. The three radiocarbon dates, including mineralised seeds, are coherent among them, with the cultural assignment of the level and with the indicated ecological conditions.

Keywords: Hunters-Gatherers, Middle Magdalenian, Landscape, Seed, Iberian Peninsula

Wood, food and landscape: the archaeobotany of the Terramare

Bois, alimentation et paysage : l'archéobotanique des Terramare

Anna Maria Mercuri¹, Marta Bandini Mazzanti¹, Giovanna Bosi¹, Elisabetta Castiglioni¹, Assunta Florenzano¹, Maria Chiara Montecchi¹, Rossella Rinaldi¹, Mauro Rottoli², Rita Terenziani¹, Paola Torri¹

¹ Laboratorio di Palinologia e Paleobotanica, Dipartimento di Scienze della Vita, Università di Modena e Reggio Emilia – Italy

² Laboratorio di Archeobiologia, Musei Civici di Como – Italy

Terramare is the Middle Bronze Age culture that developed at c. 1650–1150 BC in the Po Plain (Northern Italy), reaching a very high demographic density at the peak of its development at c. 1400–1250 BC. Pollen and macroremains from settlements and necropolis have been analyzed and permitted to reconstruct the cultural landscape that developed from a combination of wood and water management, and a complex agriculture economy. The plain was characterised by a natural openness of the landscape yet with a presence of thin woodlands, a good water supply and fertile soils of the alluvial plain of the river Po. The landscapes had general features and local peculiarities of the area of influence of each terramara settlement. Cereal fields were not uniformly distributed around the villages but, together with pastures, constituted an important trait of the agrarian landscapes. Besides cereal grains, grapevines and cornelian cherries marked the carpological records. Also fruits of hazelnut and sloe, and other trees/shrubs growing in woods, are evidence that diversified food resources were available.

Keywords: Bronze Age, Po Plain, Environment management, Agriculture, Food

Values of isotopic composition of carbon ($\delta^{13}C$) in samples of *Vicia faba* L. seeds from Eras del Alcázar (Ubeda, southeastern Spain): agricultural production, climate change and human impact

*Valeurs isotopiques du carbone ($\delta^{13}C$) obtenues à partir de graines de *Vicia faba* L. du site de Eras del Alcázar (Ubeda, S.-E de l'Espagne) : production agricole, changement climatique et impact anthropique*

Adrián Mora-González¹, Eva Montes-Moya², Antonio Delgado-Huertas³, Arsenio Granados-Torres³, Rafael

Lizcano Prestel⁴

¹ Departamento de Prehistoria y Arqueología, Universidad de Granada – Spain

² Instituto Universitario de Investigación en Arqueología Ibérica, Universidad de Jaén – Spain

³ Laboratorio de Biogeoquímica de Isótopos Estables, Instituto Andaluz de Ciencias de la Tierra (CSIC-UGR) – Spain

⁴ Área de Urbanismo. Ayuntamiento de Ubeda – Spain

In this paper we present preliminary results of carbon isotope analyses ($\delta^{13}C$) of *Vicia faba* L. seeds from the archaeological site of Eras del Alcázar (Ubeda, Spain). Samples range chronologically from early 3rd Millennium to the mid-2nd Millennium cal. B.C. Results have been compared to carpological and others archaeobotanical data of this settlement. The aim of this study was twofold: firstly, to assess land management strategies and the available conditions for agricultural production to the inhabitants of this settlement; secondly, to verify climate changes and the advance of the process of aridity in the studied area. The results highlight a strongly anthropogenic context in which new farming systems were implemented due to the trend towards drier weather conditions.

Keywords: Isotopic composition of carbon $\delta^{13}C$, Iberian Peninsula, Middle Holocene, *Vicia faba* L., Agricultural practices

Palaeolithic plant exploitation in the Western Mediterranean: macrobotanical evidence of food and basketry at Middle Stone Age and Later Stone Age sites in Morocco and Tunisia

Exploitation des plantes durant le Paléolithique en Méditerranée occidentale. Témoins macroscopiques de résidus alimentaires et d'activités de vannerie dans des sites du Paléolithique moyen et final au Maroc et en Tunisie

Jacob Morales¹, Lydia Zapata¹, Leonor Peña-Chocarro^{2,3}, Abdeljalil Bouzouggar⁴, Nick Barton⁵, Louise Humphrey⁶, Simone Mulazzani⁷, Jörg Linstädter⁸, Lotfi Belhouche⁹

¹ Departamento Geografía, Historia y Arqueología, University of the Basque Country – Spain

² Laboratorio de Arqueobiología. Instituto de Historia. CCHS/CSIC – Spain

³ Escuela Española de Historia y Arqueología en Roma/CSIC – Italy

⁴ Institut National des Sciences de l'Archéologie et du Patrimoine – Morocco

⁵ Institute of Archaeology, University of Oxford – United Kingdom

⁶ Department of Earth Sciences, The Natural History Museum – United Kingdom

⁷ Aix-Marseille Université – CNRS : UMR7269 – France

⁸ University of Cologne, Germany – Germany

⁹ Musée archéologique de Sousse – Tunisia

This contribution presents the preliminary results of the Paleoplant project (Palaeolithic plant exploitation in the Western Mediterranean) funded by the European Research Council. The paper aims to explore the presence of macrobotanical remains and to assess the role of plants during the Middle Stone Age (MSA) and Later Stone Age (LSA) of North-Western Africa. Previous research on the Palaeolithic economy in this region has emphasized the role of land snails and animal resources, but little attention has been paid to the use of plants. Here we present the preliminary results from systematic analyses of charred macro-botanical remains at several MSA and LSA sites in Morocco and Tunisia. We identified abundant