Annual Meeting Attendance Confirmation

This is to certify that the below person participated at the 24th Annual Meeting of the European Association of Archaeologists (EAA) in Barcelona, Spain, 5-8 September 2018, and presented the below contribution.

Member's Details

EAA ID: 60157   Name: Agustín Angel Diez Castillo

Contribution - Paper:

COMBINED SPATIAL RADIOCARBON DENSITY MAPS AND REFINED SCPD METHOD TO EXPLORE FOOD PRODUCTION SPREAD THROUGH THE CENTRAL AND WESTERN MEDITERRANEAN.

Date: 13 September 2018

Signature

Sylvie Kvetinová, EAA Administrator

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the settlements that do not leave archaeological trace? The aim of this paper is to show how quantifying methods for people and manpower estimate can be used to integrate and improve traditional demographic analysis.

09 COMBINED SPATIAL RADIOCARBON DENSITY MAPS AND REFINED SCPD METHOD TO EXPLORE FOOD PRODUCTION SPREAD THROUGH THE CENTRAL AND WESTERN MEDITERRANEAN

Author(s): Diez Castillo, Agustín (Universistat de València - GRAM) - García Puchol, Oreto (Universitat de València - PREMEDOC) - Bernabeu Aubán, Joan (Universitat de València - PREMEDOC) - Pardo Gordó, Salvador (Departament de Prehistòria. Universitat Autònoma de Barcelona)
Presentation Format: Oral

The neolithisation process in Europe constitutes a fundamental issue of interest in social evolutionary studies. The pioneer work of Ammerman and Cavalli-Sforza (1984) has been considered the basis for discussing the mechanisms involved in the expansion of farming and herding practices in a continental scale, assuming their spread from the Near East domestic core area. From an evolutionary perspective the introduction of agriculture and livestock implies major shifts in social dynamics including changes in demographic patterns as well as in settlement distribution and cultural models. Spatial analysis together with the use of radiocarbon data as a demographic proxy maybe one of the keys to better understand population dynamics involved in the neolithisation process. We compare if the evidence of domestic plants and animals expansion through central and western Mediterranean fit with the summed calibrated radiocarbon probability distributions (SCPD) calculated for the whole area and if the same is true for regional areas. We try to overcome the limits of the SCPD method that have criticized like sometime as imprecise and others as biased because we believe that, despite criticism, summed calibrated radiocarbon probabilities are the bare bone of any well funded paleo demographic approach to the arrival to the agriculture way of life to central and western Mediterranean.

10 COMBINATION OF DIFFERENT PROXIES FOR ESTIMATING DEMOGRAPHIC DEVELOPMENT IN THE TRANSITION TO THE BRONZE AGE ON THE IBERIAN PENINSULA

Author(s): Hinz, Martin - Kneisel, Jutta (Institut für Ur- und Frühgeschichte CAU Kiel) - Schirrmacher, Julien (Institut für Geowissenschaften CAU Kiel) - Weinelt, Mara (Graduiertenschule Human Development in Landscapes CAU Kiel)
Presentation Format: Oral

In many parts of the Iberian Peninsula, the transition from the Copper Age to the Bronze Age is marked by profound demographic changes. Although the local conditions and cultural development can vary greatly, the Iberian Peninsula can be divided into two zones. Especially in the south, which has been a hotspot of archaeological investigations for decades, a clear increase in settlement evidence can be observed for the Copper Age. With the transition to the Bronze Age, different trajectories become clear within the southern region: In the South West there is a widespread abandonment of settlements and discontinuity. Wherever stratigraphic continuity is evident, a significant change can be found in the archaeological material within a site. The rapid spread of early Bronze Age cultures on the southeastern Iberian Peninsula seems to be accompanied by a demographic boom. This can be derived from regional land use reconstructions and estimates of grain production. This is accompanied by signs of a highly stratifying society with control over resources and food production.

By means of aoristic analyses and 14C cumulative calibrations we try to understand these changes in more detail and to investigate whether climatic influences and the resulting population shifts may have played a role. To this end, we combine the existing evidence from different data sources and proxies, such as changed economic conditions, abandonment of settlements and palaeobotanical predictions of human influence, in a common quantitative framework in order to estimate and test temporal relationships and causality. The observed correlations are tested for their statistical significance using a Monte Carlo-based method. Firstly, we can suggest that a combination of environmental influences and socio-economic reconfiguration is likely to trigger the demographic shifts.

11 THE EMERGENCE OF MEGALITHISM IN PORTUGAL IN ACCORDANCE WITH 14C: AN INTERREGIONAL VIEW

Author(s): Pardo-Gordó, Salvador (Departament de Prehistòria. Universitat Autònoma de Barcelona) - Carvalho, António Faustino (Departamento de Artes e Humanidades, Universidade do Algarve)
Presentation Format: Oral

The reconstruction of demographic dynamics using dates as data approach is being increasingly used to look at prehistoric population patterns because a lot of archaeologists go beyond the simple lecture of 14C dates as absolute time or use it to create chronological frameworks. This approach has seen a rapid growth around the world, including the Iberia Peninsula where a lot of papers have been recently published focus on the last hunter-gatherer and the first agricultural societies.

The goal of this work is to analyse the onset of the megalithism in Portugal applying the Summed Radiocarbon Calibrate Dates (SPDs) in order to explore possible demographic consequences related with this phenomenon. In this sense the method used here is twofold: In first place, we show a protocol to select the radiocarbon dates related to megalithic monuments following previous works. On the other hand, we build the SPD based on radiocarbon information with statistical confidence envelope of simulated Summed Radiocarbon Calibrate Dates fitted under null model.

The results will be allowed to compare several geographical regions in Portugal in order to know if there are differences that could