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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 – Co-author of Paper:

CATTLE AS ACTORS IN A PASTORAL LANDSCAPE. GIS ANALYSIS OF AN
AGROPASTORALIST GROUP

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Signature

Sylvie Květinová, EAA Administrator

European
Association of
Archaeologists

EUROPEAN ASSOCIATION OF ARCHAEOLOGISTS (EAA)

Letenská 4, 118 01 Praha 1, Czech Republic
+420 733701679, helpdesk@e-a-a.org

pasture areas can be distinguished in an intensely-used, higher subalpine region (above 2000 m a.s.l.) and a less-used, lower subalpine region. Our previous results will be complemented by micromorphological investigations.

03 CATTLE AS ACTORS IN A PASTORAL LANDSCAPE. GIS ANALYSIS OF AN AGRO-PASTORALIST GROUP

Author(s): Salazar-Bonet, Juan (Florida State University International Programs Valencia) - Diez-Castillo, Agustín (Universitat de València - Grup Recerca d'Arqueologia del Mediterrani)

Presentation Format: Oral

In the study of pastoral landscapes, ethnoarchaeology can incorporate first-hand information on material features and herding practices and identify the active role of domestic animals in such practices. The Mursi are a present day transhumant agro-pastoralist group, which are specialized in the livestock herding of cattle (*Bos indicus*). This study examines evidence from this animal behaviour and its needs, which allows us to enrich a particular construction of a herding landscape in contemporary SW Ethiopia. Remote sensing techniques are employed to obtain landscape snapshots of the Mursi main pasture area, which are contrasted with fieldwork data. Moreover, recent improvement in digital terrain models permit us to test cattle desire lines with least-cost path (LCP) between settlements and resources, as well as distances from these settlements to various hazards. The context is characterized by high mobility; however, the Mursi settlements and their social reality consider fixed territorial strategic locations around different hydrological catchment areas and optimal pastures. Less detectable variables such as those related to diverse dangers also appear as key elements to understand this landscape. Animals, their short and long-distance movements, and their consequences on people help create an identity for the Mursi main pasture area. Cattle reveal itself as a decisive agent in the construction of both place and landscape, challenging the conception of animals as merely passive actors in domestication processes.

04 FORMATION PROCESSES OF AN AMAZONIAN DARK EARTH: GEOSTATISTICS ANALYSIS AND DATING OF THE IMPACT OF ANTHROPIC ACTIVITIES

Author(s): Alcaina-Mateos, Jonàs - Lancelotti, Carla (CaSEs Research Group; Department of Humanities, Universitat Pompeu Fabra) - Madella, Marco (CaSEs Research Group; Department of Humanities, Universitat Pompeu Fabra; Department of Archaeology and Anthropology, Institució Milà i Fontanals, Spanish National Research Council - IMF-CSIC; Catalan Institution for Research and Advanced Studies - ICREA) - Calegari, Marcia Regina (Department of Geography, Universidade Estadual do Oeste do Paraná) - Coimbra Martins, Gilvan (Embrapa Amazônia Ocidental, Manaus) - Vidal-Torrado, Pablo (Soil Science Department, ESALQ, University of São Paulo) - Teixeira, Wenceslau (Embrapa Solos, Rio de Janeiro)

Presentation Format: Oral

This paper aims at discussing the use of 3D geostatistics to interpret spatio-temporal anthropic features in a very complex stratigraphy. Amazonian Dark Earth (ADE; Terra Preta do Índio) is a type of Anthrosols widely present in the Amazon Basin and it is associated with human pre-Columbian occupations. The anthropic soil horizons have a large stock of organic carbon and are rich in charcoal remains, resulting in a very dark colour and homogenous deposit that can hamper the identification of stratigraphically well-defined layers. Therefore, the excavations of ADEs often are carried out by artificial spits, which increase the uncertainty in attributing artifacts and ecofacts (especially bio-remains) to a specific chronological phase.

In this paper, we present the results of geostatistical analyses from a set of samples from an ADE locate at the Caldeirão Research Station near Manaus in the Central Amazon (Brazil). The site was sampled for soil chemical and physical characterization with a quasi-regular grid of cores sampled at every 50 m and to a depth of 1 m. Samples for analyses originated from sampling every 20 cm the grid's cores. Geochemical analysis, soil pH, total organic matter and pottery weights were measured. Geostatistical interpolations were then implemented using ordinary kriging in three dimensions (x, y, z) and spatial anisotropy to reconstruct the formation processes of this archaeological site as well as to identify areas where anthropic effect was more intense. The results suggested a long sequence of frequentation with two to three foci of human occupations in different periods. The radiocarbon dating of micro-charcoal from the soil was used to chronologically constrain the results from geostatistical analyses and graphical interpretation.

05 BIOFUELS, RESPIRATORY HEALTH AND THE BUILT ENVIRONMENT IN PREHISTORY - MULTIPROXY INVESTIGATIONS AT NEOLITHIC CATALHOYUK, TURKEY

Author(s): Shillito, Lisa-Marie - Mackay, Helen - Namdeo, Anil (Newcastle University) - Haddow, Scott (Bordeaux University)

Presentation Format: Oral

A wide range of materials have been used as fuels in prehistory including animal dung, reeds and agricultural waste products, which were often preferentially selected for particular activities. Çatalhöyük is a UNESCO World Heritage Site, with >1000 years of continuous occupation from the pre-pottery Neolithic to Chalcolithic period (7100 – 5700 BC). This occupation covers the period when pottery was first produced, a key moment reflecting an increasing sophistication in the control and manipulation of fire in human history and is associated with changes in fuel management strategy. Whilst there have been some limited attempts at uniting archaeobotanical and geoarchaeological approaches, this has never been done systematically. This new research brings together these complementary lines of evidence, wood macrocharcoal and ash geochemistry, and also applies a new methodology using organic biomarkers associated with burning.

In addition to understanding fuel resource use, the extended chronology of the archaeological record has the potential to help un-