

### **A Prickly Pear to Pick: The Deposits of *Lithospermum* in the Chalcolithic of NE Romania**

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Our paper aims at presenting and discussing the discovery of *Lithospermum officinale* (Gromwell) and *Lithospermum purpureo-coeruleum* (Purple Gromwell) seed deposits from several Cucuteni sites (NE Romania, Vth - IVth millennia CAL. B.C.): Izvoare-Piatra Neamț, Poduri-Dealul Ghindaru and Frumușica. The large number of seeds (in the thousands) in the deposits, the morphological alteration observed in some instances (perforation) and the aesthetically pleasing appearance, suggest, at a first glance, their use as purely decorative body adornments. However, an in-depth contextual analysis and especially their association with other types of artefacts (such as selected animal skeletal parts) allows us to explore different meanings of this category of archaeological finds. Acknowledgement: This work was supported by a grant of the Romanian National Authority for Scientific Research, CNCS –UEFISCDI, project number PN-II-ID-PCE-2011-3-0885.

### **The Flora on Minoan and Mycenaean Frescoes and Its Botanical Determination**

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This research will explore Minoan and Mycenaean flora on frescoes and their botanical determination. This subject was mainly dealt with in an in-depth study by Martin Möbius, who published in 1933 an article comparing representations with real plants. Since then only individual case studies were pursued. My study shows that in Minoan and Mycenaean iconography ca. 35 categories of plants can be distinguished, but scarcely on the species level. Some plants cannot be determined at all, while other representations combine features of many species. The study will illustrate individual plants and – as far as possible – their botanic models, with the seasons of their blossoming in Crete, on other islands in the Aegean and in mainland Greece. It will also discuss some specific colouring of flowers (whether the yellow saffron did exist or was only in the imagination of the painters). The last part of the study will discuss the question of choice of models for representation on various materials.

### **Paleobotanical Analysis of a Burial in Plan De Ayala Site, Durango, Mexico**

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In the Mesoamerican societies (part of Mexico and Central America) human burials were accompanied by various types of offerings according to the social and economic status of the deceased. These can range from flowers, some coins, food or a favorite outfit of the person concerned. At the state of Durango in Mexico after excavating many burials without visible offerings, which belonged to the chalchihuites culture of the Mesoamerican tradition, it became essential to undertake paleobotanical studies. Both macro- and micro-remains were studied to better understand how these societies treated their burials. In this work the results of these analyses are outlined, using burial in the Plan de Ayala site as a case study.

### **Ash Hill of Myrmekion as a Ritual Object**

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On the territory of several ancient cities of the northern Black Sea coast, there are archaeological complexes of thick ash hills that contain a wealth of artefacts and particularly ceramics. Their function is still a matter of debate. This research outlines the results of the excavation of one of the largest northern Black Sea coast ash hills, located at the central part of the ancient city of Myrmekion. Originally it was a hill about 7m high and 30m wide. Different data were synthesised on the quantity and quality of the mass material found during the excavation. Chronological markers were analysed and the timespan of the complex was defined as the first half of the 3<sup>rd</sup> century B.C. On the grounds of the fact that some votive objects, such as fragments of terracotta figurines and vessels with devoting inscriptions, were found in the complex it was concluded that the ash hill of Myrmekion was a peculiar cult object, possibly the result of mixed religious practices and cults of ancient Greeks and the local agricultural population.

### **Ritual Use of Animals in the Precucuteni-Cucuteni Civilisation**

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Skeletal remains of animals discovered in possible ritual contexts are described in terms of their anatomy and symbolism. In the Chalcolithic sites of the Precucuteni-Cucuteni cultural complex (5050 and 3500 cal. B.C.) although the recovery of animal bones is rather limited, the animals seem to hold an important position in the religion of this ancient population. Zooarchaeological and archaeological studies highlight specific patterns in animal remains according to species, element and age representation, killing pattern, butchering, stratigraphic details, and association with other artefacts. Different categories of animals or animal parts found in archaeological contexts will be presented, which allow an association with ritual practices to be delineated: burial of complete animals in settlements (e.g. skeletons of pigs discovered in the Cucuteni level

of the Poduri-Dealul Ghindaru tell); parts of animals in settlements (e.g. bucrania and horn cores of bovines discovered in the Precucuteni site of Targu Frumos); parts of skeletons possibly used in divination or good fortune rituals (e.g. deposit of astragali at Poduri-Dealul Ghindaru tell). Acknowledgement: This work was supported by a grant of the Romanian National Authority for Scientific Research, CNCS-UEFISCDI, project number PN-II-ID-PCE-2011-3-0885.

### **Analyses of a Funerary Context and the Evaluation of DNA Recovery from EBA Human Bones by Different Isolation Methods**

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Recent archaeological research in eastern Romania provided a new research possibility. The remnants of a tumulus dated to the EBA and belonged to the Jamnaja funerary group were investigated. The study offered the possibility of integrating new investigation methods and current theoretical and methodological approaches. Our endeavour was to provide a communication bridge between the sciences involved in such an analysis. In recent years there is an increased need to illustrate the genetic population structure at different moments in time in a geographic space with dynamic demographics (population movement, diverse ethnic interactions, layered societies). So far, a universal method that allows DNA isolation from materials at different stages of degradation does not exist. The aims of this study were: the evaluation of DNA quality and quantity, recovered from EBA human bones, with different degrees of degradation, using different methods of DNA extraction and an evaluation of the usefulness of these methods in anthropogenetics. The efficiency of DNA extraction, the degree of extract contamination by PCR inhibitors and the possibility of determining the DNA sequencing, were compared. Mitochondrial DNA from bones, at different states of degradation, was isolated using different methods.

### **The Cow Took a Look to the West. Animal Remains between Dietary Habits and Ritual in LBA Settlements**

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Depositions containing bronze artefacts are common in the Late Bronze Age in Central Europe. The bronze depositions were often laid down outside the settlements. Excavations within settlements with excellent bone preservation not only give information about the dietary habits and species of the slaughtered animals, but are essential for an advanced understanding of rituals. Many LBA settlements near the Harz Mountains in Germany contain animal remains in a different context. They provide a chance to take a more in-depth look into ritual and religion. Skulls, selected bones and complete animal burials were treated differently than shattered bones of food remains. Analysing species and age of the remains was the next step to determine preferred parts of the body. In some cases skulls were covered with stones and laid down in pits between the houses. Tools and jewellery were made of selected animal bones, too. The different species and how they were deposited in the settlements do not form part of an everyday ritual but show the strong relationship between the inhabitants and the animals. The similarities and differences between consumed animals, the natural landscape and the remains of rituals are important for reconstructing the way of life and social structures.

### **Feasting in a Sacred Grove. A Multidisciplinary Study of the Roman Temple Area at Rapperswil-Jona Sg, Kempraten Seewiese, Switzerland**

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During excavations in 2009/10 at the Roman *vicus* Kempraten (Rapperswil- Jona, Switzerland), situated on the eastern shore of Lake Zurich, a Gallo-Roman sanctuary with two temples and an altar for burning offerings was unearthed. According to current knowledge the sanctuary was built around 100 A.D. and was in use until the 4th century. Only the veneration of magna mater (Cybele) is proven by her mention on lead tablets. In several structures inside the walled-in area (temenos), waterlogging led to the excellent preservation of bioarchaeological remains. This gives the opportunity not only to obtain information about offerings and ritual practices, but also allows a detailed reconstruction of the local vegetation. A multidisciplinary study is currently under way, including archaeology, geoarchaeology, archaeobotany (macrofossils and pollen) and zooarchaeology (large and small bones). The first results show that not only large mammals were part of offering and feasting ceremonies, but also fish. Trees and forest undergrowth species dominate the plant spectrum. Some of the trees, particularly Scots pine, do not naturally grow in the area and must have been intentionally planted. This indicates the existence of a sacred grove, as mentioned by various classical authors.

### **Ritual Meals at Mesolithic Yuzhnyi Olenyi Ostrov, NW Russia?**