

POSTER SESSION

Abstracts:

COGNITION AND CHANGE – AN ASSESSMENT OF THE UNDERSTANDING OF A NEW MATERIAL CULTURE DURING THE NEOLITHIC IN SWEDEN

Kim von Hackwitz, Stockholm University, Sweden

Between 2800-2300 BC the archaeological picture in Sweden's mainland changes. The change is indicated by the appearance of the Boat-Axe Culture. In particular, the change can be noted by the introduction of new types of inhumation-graves that differ from the graves belonging to the previous and contemporary Pitted Ware Culture (3200-2300 BC). The new type of burials contains a new set of grave items and in addition, compared with the previous tradition, they are sited in different geographical locations in the landscape. The Boat Axe culture is usually positioned in a dualism to the Pitted Ware Culture. The two cultures are said to have been representing two ethnical and/or economical different groups.

On this poster, an alternative view on the two material cultures will be presented. Instead of considering the two assemblages as indicating two different ethnical groups I will suggest that they can be understood as to express different actions within one society. From this perspective the act of accepting a new set of material culture, i.e. the introduction of the Boat Axe culture, should be considered as an act of involving a new practice in the society. I propose that the new material culture evolved from the practice of creating and sustaining regional alliances. Judged from the distribution of the Boat Axe Culture regional alliances was shaped and maintained in some areas but not in others. This however raises several fundamental questions concerned with the comprehension of the Middle Neolithic society as a whole involving issues of innovation, cognition and material culture.

EXCAVATING STRAIT STREET: ARCHAEOLOGY AND MEMORY IN 'THE GUT'

John Schofield, English Heritage, UK

In 1965 Titbits magazine included the following description of Strait Street (Valletta, Malta), aka 'The Gut', under the title 'The street that shames Hero Island':

British tourists should steer clear of Malta till the island's government take this advice; stamp out the vice in a street that is the shame of Malta – Straight Street (sic).

In fact Strait Street closed of its own accord, the absence of naval personnel after the 1960s rendering the number of bars and hotels unsustainable. Seemingly overnight, but in fact over a matter of a few years, the street effectively closed down. Many of those that owned bars locked the doors and went away, never to return. Artistes moved away, some to Australia and England.

This degree of closure I find fascinating: places locked up and left will retain archaeological evidence, here in the form of architectural details, aspects of décor and furnishing, tables and chairs and artefacts – some familiar, some less so. But closure also exists in the psychology of remembrance: why was it so difficult to get this project underway, and to meet those that knew Strait Street? Why were we warned off, and told to ensure our telling of this particular story was done ‘respectfully’? By contrast, why were others (artistes and naval personnel) so keen to tell their stories?

This poster reveals much about the archaeological investigations into Strait Street, with a focus on the sites that remain and the stories and people associated with them. This single A0 poster will provide the starting point for conference delegates wishing to take a walk down Strait Street and explore it for themselves.

The research was funded by the British Academy.

LANDSCAPES OF WAR

John Schofield on behalf of the Culture 2000 Landscapes of War Project

Landscapes of War is the ambitious project being undertaken by project partners across Europe under the European Commission’s Culture 2000 project. The focus of interest is the archaeology of European conflict through the twentieth century, and the cultural value of the documents, artefacts, sites and landscapes that remain. Work by partners in England, France, Germany, Italy and Spain has ensured a diversity of site types, issues, and cultural contexts are addressed. For England the focus is on terrestrial and maritime sites of both world wars and the Cold War; for Spain it is the Spanish Civil War; for some Italian partners it is Second World War maritime archaeology.

The posters generated to publicise this project reflect this diversity of interests and approaches. Six A1 sized posters cover the project’s essential aims and philosophy, as well as some themes: battlefields, aviation and maritime landscapes for example. Those that read the posters will learn about the project, and see examples of the types of site and landscape that comprise Europe’s landscapes of war, an essential and characteristic component of much European landscape change in the twentieth century. Leaflets will also be available in Spanish, Italian, German, French and English. These will be prominently displayed close to the posters and are free of charge.

TO INVESTIGATE OR NOT TO INVESTIGATE. WARSZAWA (POLAND), KRAKOWSKIE PRZEDMIEŚCIE STREET: CHARMS OF THE ARCHAEOLOGICAL WORKS IN PROGRESS OF THE RECONSTRUCTION OF THE PRESENT CITY

Włodzimierz Pela, Historical Museum of Warsaw, Poland

The scope of archaeological research is progressively encompassing periods closer and closer to the present. One of the new directions of research is the economic development of countries and, connected with this, their reconstruction. We destroy old, we build new. One of the places in which these changes are the most

visible is the urbanized area - the city. Leading archaeological observations in the progress of construction works on the ground of the historic town, we can note transformations of this spatial arrangement on the space over many centuries. We can also recognize relics of former buildings. To be sure, we know many of them from old plans or views, but thanks to archaeological works it is possible to find their exact location on the geodesic plan. Archaeological and architectural research delivers also plenty of detailed information about well-known monuments from historic sources which are at present hidden below the ground. They allow uncovering and describing new remains, previously unknown. In turn findings of objects of everyday use which not always remained to the present day, bring us the image of the life of former inhabitants living in the 17th (?) to 19th centuries. Unfortunately, archaeological research encounters many difficulties and limitations of an organizational and technical nature. They are often led hastily and are interrupted by construction machines, which has influence on the final result of research and sometimes forces archaeologists to raise the question: to investigate or not to investigate.

The aim of this poster presentation is the discussion of the above problems on the example of research during the reconstruction of the pavement of Krakowskie Przedmieście Street, one of the oldest communication roads of Warsaw.

FAIENCE AND MAJOLICA PRODUCTS FROM LOW COUNTRIES IN FORMER ELBLĄG: SELECTED EXAMPLES FROM ARCHAEOLOGICAL WORKS

Grażyna Nawrołska, Poland

Elbląg, which was established by the Teutonic Order in 1237, rapidly became the major sea port of Prussia, one of the most important within the region of the Baltic Sea. Splendid tempestuous times of the town in the Middle Ages as well as in the modern era were interrupted by the year 1939. Due to military operations, the entire Old Town was demolished. Its reconstruction had been preceded by interdisciplinary archaeological works.

Over many years of the works, urban arrangement of the town, forms of wooden and brick development, technical infrastructure as well as public buildings have been recognized. One of the most precious findings were archaeological sources in a form of thousands of artefacts made of clay, metal, leather, wood, glass, amber, etc. They present various branches of craftsmanship and products which are results of extensive commercial trade with the entire Europe. They show the picture of material culture of Elbląg's inhabitants, define their needs and standard of living. They represent elements of everyday life of people living in Elbląg for over seven hundred years.

Faience and majolica vessels are one of the most attractive types of modern ceramics and are particularly interesting artefacts for archaeologists and art historians. They were valued due to both their aesthetic and practical qualities. They were imported to Elbląg in large quantities primarily from Low Countries and were the pride of wealthy bourgeois interiors. Goods made of proper faience, whose surface was covered with tin glaze as well as delicate faience with lead glaze were the basic types produced in Low Countries. They were imported to Elbląg from various locations within that region: Haarlem, Rotterdam, Amsterdam, Utrecht and primarily

from Delft. Drawing on Renaissance Italian majolica for inspiration, potters from Delft used three basic techniques to produce such vessels: high flame technique, mixed technique and glazing technique. White-and-blue Chinese porcelain from Ming dynasty and Japanese one of Imari type played an inspiring role in the early production period. Motifs to decorate vessels were drawn from them, while their own style specific for all later production was being developed. Major decorative elements of various types of vessels such as plates, bowls, mugs vases, tableware, and vessels for personal hygiene included: Chinese figure scenes and flower, bird or biblical decorations.

Majolica products, whose massive production began in Italy in the middle of the 15th century, were characterized by high flame technique. Italian majolica was copied in Europe in workshops in England, Portugal, France and Low Countries – primarily from Antwerp. Both faience and majolica products were dominated by white-and-blue decorations, however, products made until the end of the 17th century were also painted in other colours. Amongst the huge quantity of products imported from Low Countries excavated in Elbląg, various types of vessels of white-and-blue and white-and-navy-blue shades dominate. Colourful, not frequently found pieces, represent mainly workshops from Haarlem, Utrecht, Hoorn and Rotterdam.

Good times for faience and majolica from Low Countries lasted almost until the end of the 18th century. It is also clear in findings of such artefacts in Elbląg. Beginning from the late 18th century, majolica from Frisia, faience goods from Germany appeared in the Old Town. Chinese porcelain is being imported through Amsterdam on a massive scale.

Faience and majolica goods, among others those imported from Low Countries, used by wealthy Elbląg's burghers were one of the elements of splendid tableware. Also beautiful stoneware vases and mugs from Rhineland, glass vessels 'à la façon de Venise', Chinese and even Japanese porcelain and faience from England were imported to Elbląg. Their huge quantity, rich and diverse range may be, along with property inventories, wills and bills, one of the criteria in research over the wealth of former inhabitants of Elbląg. They may play a very important role in construction and an attempt to reconstruct the picture of lifestyle of former inhabitants of Elbląg.

ARCHAEOLOGY OF THE DISAPPEARING LANDSCAPE: THE TUŠIMICE SURVEY PROJECT

Zdeněk Smrž, Aleš Káčerik, Martin Kuna, Czech Republic

The Tušimice survey started in 2007 as a joint project of the Institute of Archaeological Heritage Management of NW Bohemia, Most, and the Institute of Archaeology ASCR, Prague (Czech Republic). The main goal of the project is to accomplish a detailed surface survey of the area of the open-cast mining area of Tušimice (Hutná stream) that is going to be totally destroyed in the near future. Such a survey may provide a unique chance to compare the surface archaeological evidence to the subsurface archaeological situations which are to be uncovered during the following years. The poster is going to present a strategy and methods of surface collection survey employing probabilistic sampling, predictive models and the use of GPS. All data are collected and archived in a GIS based database.

AERIAL ARCHAEOLOGY AT THE UNIVERSITY OF LEUVEN (BELGIUM)

Marc Lodewijckx, Rene Pelegrin, Luc Corthouts, Bert Aerts, University of Leuven, Belgium

In recent years, the Aerial Archaeology Team of the University of Leuven (Belgium) has played an effective role in archaeological surveys, in the monitoring of sites and monuments as well as in the registration of soil-related phenomena, such as erosion and land development. The team is mainly active in the eastern and southern parts of Belgium. Although weather conditions and financial support are not always favourable, significant results have been booked, especially in the Hesbaye loess area of central Belgium. Other regions, both in Flanders and in Wallonia, have their own particular landscapes and specific archaeological features. The poster shows examples of recent discoveries in different areas of Belgium.

ARCHAEOLOGICAL MAP OF KOSOVA: SURVEY 2000-2006

Kemajl Luci, Museum of Kosova
Luan Përzhita, Institute of Archaeology Tirana

The archaeological Map of Kosova: Survey 2000-2006 has shed new light on archaeological centers of this region and underlined the large archaeological potential that lies in Kosova. Archaeological excavations, conducted by the Museum of Kosova and the Institute of Archaeology Tirana in the time period from 2000 to 2005, extended over the entire Drini i Bardhë Basin, covering the municipalities of Peja, Deçan, Klina, Gjakova, Rahovec, Suhareka, Malisheva, Prizren, Dragash and part of Istog.

Archaeological excavations conducted in this region (2000 to 2005) have unearthed a new landscape of archaeological centers belonging to different time periods. The Neolithic and Eneolithic are evidenced by the open dwelling in Sarosh (Çifllak) as well as the cave in Zatriq. In regard to the Bronze and Iron periods there are the clusters of tumuli in Rakovina, Rogova, Moglica etc., as well as fortifications from the same periods evidenced in the villages of Batusha and Hereq. The few fragments of archaeological material, mainly ceramics, found in Gexha, Vlashnja, Banja e Pejës and Zatriq, belonging to the IV-II centuries BC, provide evidence of habitation of these areas during that time. The Roman Period did not escape our attention either. Çifllak presents one of the most important centers of habitation of the period, accompanied by epigraphs in Latin and various architectural structures of the time. Of particular importance is also Dërsnik, where excavations unearthed marble objects of particularly good quality. To this time period, I to IV century, also belong 12 fragments of Latin epigraphs reflecting on various aspects of life, one of which speaks of a beneficiary station.

The archaeological survey conducted by this project, in the basin of Drini Bardhë, showed a high density of fortifications from late antiquity and the medieval period within a relatively limited area. Therefore, the focus of our work were the fortresses at Radac, Jabllanicë e Madhe, Cërmjan, Volujak, Jerinë, Dollc, Zatriq, Kusar, Gegjë, Guri i Kuq, and others. Built structures, building techniques, as well as

many other elements of fortification, suggested that these forts for the most part belong to the centuries IV-VI. In addition to dwellings, the discovery for the first time of certain medieval structures in Banja e Malishevës, Graboc, Fushë Kosovë, etc. is of great relevance. Certainly, surveys of this geographic area, which at the center of their attention also had the recording of centers from the medieval period, significantly enriched the map on the distribution of dwellings and other finds belonging to the IX-XI centuries. The cultural material represented in these sites, including burials, can be placed within two time periods, that of centuries VI to VIII, and IX to XII. This material, also consisting of luxury items, such as silver, show that medieval necropoles in Kosova speak of contact between northern cultures in the Balkans and the Christian south.

The contribution of this research in Kosova is the evidence of 264 archaeological centers, most of which are new discoveries belonging to different time periods. With the expansion and fusion of these excavations the fund of archaeological sources will be enriched, and consequently our knowledge of the ancient Dardanian culture will progressively expand and become more complete and accurate.

DIGITAL ARCHIVES OF CZECH ARCHAEOLOGY

Martin Kuna, Dana Křivánková, Magda Mazancová, Czech Republic

The main goal of the project is the conversion of the central archives of archaeological field activities in Bohemia (Czech Republic) into digital format. The archives of the Institute of Archaeology AS CR, Prague, collect and store field documentation from its own excavations but – according to the law – from the field activities of other institutions on the territory of Bohemia, too. This data includes excavation reports, aerial photographs, field photographs, plans, etc. in the total amount of ca. 0.5 million pages and about 250 thousands photographs and plans. The reasons for the digitalization are (1) to save the documents damaged by the flood of Prague in 2002; (2) to prevent the loss of information in consequence of any potential catastrophic event in the future; (3) to facilitate the spread of information and (4) to stimulate new approaches to data analysis (e.g. by the presentation of databases, GIS files, etc.). The project started in 2002 and now it is approaching its completion. Most of the data has been already digitized and are presented through an internet application.

SPATIAL ANALYSIS OF THE SALT SPRING EXPLOITATION IN MOLDAVIAN PRE-CARPATIC PREHISTORY (ROMANIA)

Olivier Weller, European Protohistory, UMR 7041, CNRS-Universities Paris I Sorbonne-Paris X Nanterre, France

Robin Brigand, Chrono-environnement, UMR 6249, CNRS-University Franche-Comté, France

Laure Nuninger, Chrono-environnement, UMR 6249, CNRS-University Franche-Comté, France

This French-Romanian project, established by the end of 2003, aims to study the dynamics and interactions between human settlements and occurrence of salt springs. The Oriental Carpathian mountains in Moldavia offer a perfect research site for studying the continued exploitation of salt springs from Neolithic times to the current day. This poster focuses on the nature of prehistoric occupation – from Neolithic to Chalcolithic (6000-3500 BC) – in the region of Neamt.

In order to understand the impact of salt, as a resource, on human organisation, our approach includes social science perspectives (archaeology and ethnology) and natural science perspectives (geoarchaeology, palynology and anthracology). Using a Geographical Information System this project aims to analyse the relationship over time between settlement patterns and salt springs distribution. Our GIS includes an archaeological database (241 sites and 79 springs which 58 are salty) mainly based on fieldwork records (GPS measurements), a digital elevation model with a 25 m of resolution made from satellite imagery by K. Ostir (IASS, ZRC SAZU, Slovenia) and the administrative district map at the level of the village (M. Consinschi, University of Lausanne).

Using mapping and kernel density calculation, such data enabled the analysis of the relationship between settlement density dynamics and salt springs. In addition, a qualitative approach is in progress in order to qualify the type of control practised on salt resource. This approach includes a landscape analysis using viewshed, from archaeological sites and from salt springs points of view.

In the chronological framework of the Cucuteni culture (4600-3500 BC) within the Chalcolithic period, this analysis will provide a primary hierarchy in terms of control of salt resource. Before this period, the Neolithic archaeological sites show the main background tendencies which ensure the Chalcolithic demographic development. Later on, this analysis over times will be used to explain the powerful link between hierarchical human settlements and salt springs.

MOLECULAR GENETIC ANALYSIS OF THE 10TH CENTURY FROM THE CARPATHIAN BASIN

Aranka Csósz, Balázs Mende, Kitti Köhler, Péter Langó, Gyöngyvér Tömöry, Dóra Kiss, Archaeological Institute of the Hungarian Academy of Sciences, Laboratory of Archaeogenetics, Hungary

The aim of the research is to examine the remains of the small, 10th century cemetery from Harta-Freifelt on the basis of multidisciplinary methods. Beside morphometric and anthropological evaluation, the mitochondrial DNA (mtDNA) analysis was carried out from the bone remains. The aim of the study is to reconstruct the relationships between the mainly female burials on the grounds of similar, clan-type, conquest period cemeteries. The mtDNA is ideal to follow the maternal lineages of populations since it only descends on the maternal side, no recombination takes place in a mtDNA. Whereas the mtDNA of the descendants within maternal lineages is constant, in case of sequences with dissimilar mutation the common maternal ancestor can be rejected. 17 of the 19 samples have different haplotype which fact excludes the possibility of the maternal relationships. Results carried out on the basis of archaeogenetical methods can notably modify our knowledge on society and archaeological chronology of conquest period in Carpathian Basin.

THE BRONZE AGE MAN FROM MACEDONIA

Fanica Veljanovska, Museum of Macedonia

The poster presents reconstruction of the physical appearance of a man, a warrior from a Middle Bronze Age archaeological site near Skoje, North Macedonia. The face is reconstructed in round sculpture, by putting clay directly on the skull. The full posture drawing depicts his body, with the sword which was found together with the skeleton.

ARCHIVES AND APPLICATIONS: HISTORIC AERIAL IMAGERY AS A RESOURCE FOR EUROPE'S CULTURAL HERITAGE

Paul Saliba, University of Malta

The poster will consist of an illustrative account of the available sources of aerial imagery in Malta from World War I to date, mainly those deposited at the Malta Environmental and Planning Authority (MEPA) and the National War Museum Association archives. It will emphasize the potential use of these photographs for the detection of lost sites from the Prehistoric Period to date and the changes that the rural and urban landscapes have undergone during the last hundred years. The stratigraphic approach of these photographs, accounted on 1:2500 Survey sheets and whereby the change could be evaluated in layers, will also be discussed with the use of graphics.

The poster will contain information about other photographic/cartographic material which could be used in conjunction with the aerial imagery so that past historic landscapes and features could be better understood and documented. Examples of lost features and landscapes will be highlighted. The graphic layout will be balanced between text and illustrations, although, owing to the nature of the poster, more emphasis will be given to the illustrations. A bibliography of all the literature, material and other sources cited will also be included. A detailed handout about the poster will be distributed to the visitors.

PRELIMINARY BIOARCHAEOLOGICAL AND OSTEOANTHROPOLOGICAL ANALYSIS OF NEOLITHIC HUMAN SKELETAL REMAINS FROM ALBA IULIA-LUMEA NOUA SETTLEMENT (ROMANIA)

Mihai Gligor, "1 Decembrie 1918" University, Alba Iulia, Romania

Viorel Panaitescu, "Mina Minovici" National Institute of Legal Medicine, Bucuresti, Romania

Mariana Rosu, "Mina Minovici" National Institute of Legal Medicine, Bucuresti, Romania

Simona Varvara, "1 Decembrie 1918" University, Alba Iulia, Romania

A special discovery at the settlement of Alba Iulia-Lumea Noua (Romania) is considered to be the “funeral complex” that is known because of the excavations carried out in 2003 and 2005.

The stratigraphic position allowed the identification in successive sediments of some skull remains out of joint and old bone remains that were not in anatomic connection. Human bone remains (skulls in preponderance) from approximately 100 individuals – among which adult men, women and children may be found – have been discovered in the entire area. A rich ceramic material typical for the Foeni group and a metallic ring made of copper was drawn out associated to the human skeleton-like remains.

The preliminary anthropological research set off the existence of more skulls with a circular bottomed fracture and abrasion zone, most probably resulted from a post-mortem skull manipulation during specific rituals that mark completely new funeral practices from the beginning of the Eneolithic on the present-day territory of Romania.

The relatively low extent of amino acid racemization found in some teeth samples is consistent with moderate to good protein preservation in the fossils from the Alba Iulia-Lumea Noua site.

The AMS-C14 data from Alba Iulia-Lumea Noua is placed in the interval 4690-4450 cal BC, corresponding to a fully accomplished phase from the Foeni group evolution.

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SIGNIFICANT LASTING FREQUENTATION SINCE ROMAN TIMES AT THE MEDIEVAL ZAWODZIE ARCHAEOLOGICAL SITE (KALISZ, GREAT POLAND): NEW EVIDENCE FROM RADIOCARBON DATING

G. Calderoni, Department of Earth Sciences, University “La Sapienza”, Rome, Italy
T. Baranowski, Polish Academy of Sciences, Warsaw, Poland

The ongoing research on the well known medieval stronghold of Zawodzie (southern outskirts of Kalisz, Great Poland) yielded new results of some concern for assessing both the chronology of the most ancient anthropic layers and the timing relationships between frequentation/settlement/expansion phases and the climatic pattern of the region. Concerning the first issue, based on the scant findings brought to light by systematic excavations (particularly a *terra sigillata* potsherd) the Authors that half a century ago pioneered in the archaeology of the fortified settlement hinted that the first prolonged frequentation/occupation of the site could be backdated to the Roman times. The ¹⁴C reading of 250-410 cal AD, yielded by a wooden-pebbly structure found in the deepest anthropic layer of the site and referred to a relict of river embankment against flooding is sound proof that the site has been stably occupied at the times of the Late Roman Empire. Further, the wooden remnants uncovered in a distinct trench and referred to the first phase of the fortification of the medieval settlement have been dated at 770-950 cal AD, in fair stratigraphic and archaeological coherence with the findings in the overlying layers. By considering the rich data set available it resulted that the timing of both

the occupation in Roman times and the first settlement fortification development is bracketed within large-scale, cold-dry, almost flooding-free climatic phases which have been recorded in Poland as well as throughout the Mediterranean area.

PERISHABLE FIBRE TECHNOLOGIES AT THE NEOLITHIC SETTLEMENTS OF LIMBA IN THE MIDDLE MUREȘ VALLEY, CENTRAL ROMANIA

Paula Mazăre, University of Alba Iulia, Romania

Limba is one of the largest prehistoric settlements in the Middle Mureș Valley, intensively inhabited during the Neolithic times by Starčevo-Criș and particularly by Vinča communities (ca. 6200-4700 bc). From the excavations which took place a number of textile impressions preserved on pottery fragments were brought to light, the majority found in different Vinča levels.

The study consisted of two complementary stages. The first one aimed to define the design and construction attributes, to identify the main method of manufacture and the types of patterns from the textile impressions using standard procedures of analysis (positive casts, detailed measurements, visual examination by stereomicroscope, photography). The second one consisted of several experimental tests and aimed to confirm the data recorded at the first stage and to bring to light new evidence regarding manufacturing technology.

Two major construction techniques were identified: weaving and plaiting. We tried to reproduce the most representative specimens by employing different methods, tools and raw materials (inspired by previous experimental studies and by ethnographic data). All experimental textiles were imprinted on slabs of wet clay, which were afterwards dried and fired so as to compare them with the original impressions. All data sets were systematically recorded and interpreted.

ANTHROPOLOGY OR HUMANITIES? PERCEPTION OF ARCHAEOLOGY AT DIFFERENT UNIVERSITY DEPARTMENTS IN THE CZECH REPUBLIC

Petr Květina and Klára Neumannová, Institute of Archaeology CAS, Prague, Czech Republic

The aim of the poster is to map changes in perception of archaeology (its goals and methods) at four university departments in Praha, Brno, Plzen and Hradec Kralove in the Czech Republic. The first two departments could be perceived as traditional and the other two were founded in the 90th. Each of those departments has slightly different specialization: medieval archaeology in Prague, computer applications in Brno, theory and methodology in Plzen, experimental and public archaeology in Hradec Kralove. Do students of those four departments have different understanding of archaeology? Quantitative research method by way of questionnaire investigation was used. Survey was carried out in the first year of bachelor studies, in the first year of master course and among PhD students. Professional archaeologists were also polled for reference purposes. Among the

main studied problems belong: relationship between history, archaeology and anthropology; relationship between prehistoric and medieval archaeology; essential archaeological methods; anticipated professional career of students.

ARCHAEOLOGICAL COMPLEX OF DESILO-HUTOVO BLATO, BOSNIA AND HERZEGOVINA

Snjezana Vasilj, University of Mostar, Mostar

Melisa Foric, Academy of Science and the Arts of Bosnia and Herzegovina,
Sarajevo

The remains of the Illyrian ships discovered in the small Desilo Lake, in Herzegovina, dated to the 2nd century BC are unique findings for the area of the eastern Adriatic coastline.

The geographical position of the lake Desilo, which enters the mainland quite deeply, makes a convenient and well protected harbour at the south-west part of the Hutovo blato. The large number of amphorae fragments (Lamboglia 2 type), iron Roman spears with partially preserved wooden handle, and horse shoes indicate that these ships were sunk intentionally. These reasons make us reluctant to disqualify the possibility of a pirate attack which, in this case, could have been punished by the Romans.

The ships must be viewed in the context on the existence of Naron harbour, the Greek emporium and its background which was quite populated in the pre-Roman time and in a time of their rule. The case of the sunken ships in the Desilo Lake, this archaeological complex should be viewed from multiple aspects – according to their appearance, as well as finding the significant hill-top settlement above the lake. To testify this there are numerous findings of ceramics, particularly fragments of amphorae with stopples, roofing, numerous metal findings such as fibula, key with parts of the lock, Roman horse shoes and a graveyard with 18 graves so far. This unique micro-region without doubt played significant role in the time of the Illyrian kingdom and after as well as earlier in the Bronze Age, since new discoveries of the prehistoric layer in the lake itself, can offer some more answers about it.

WALLS IN ARCHAEOLOGY

Davide Locatelli, Università degli Studi dell'Insubria, Italy

Anna Maria Rossi Institute of Archaeology, University College, London, UK

This poster focuses on the mutual interconnection between boundary walls, archaeological sites and their surroundings. The walls built in order to protect the remains of the past physically define and frame the archaeological areas and become in a sense an integral part of the sites themselves. They strongly mark an inside and an outside.

In particular this poster poses the question of the effects of the walls that act as boundary to the sites of Tas-Silġ and San Pawl Milqi in Malta. The Italian Archaeological Expedition in Malta had extensively excavated both sites since the 1960s. The beginning of its activities marks the point from which physical and mental access to the sites has been prevented to non-authorized people. Indeed, just few

years after the first campaigns high limestone walls have closed the two archaeological areas. Quite ironically, while Maltese authorities have entrusted the Italian Expedition to forge important pieces of their National historical identity, the material past used to construct such identity has been isolated from its physical and human context. However, the contemporary perception of these two boundaries is not the same due to a variety of reasons (among the others a different geographical setting and a different research's approach).

FUNERARY INVENTORY AT ALBURNUS MAIOR; CASE STUDY: ROMAN CREMATION NECROPOLIS FROM TAUL SECUIOR (ROSIA MONTANA, ROMANIA)

Ionuț Bocan, Decebal Vleja, National History Museum of Romania, Rescue Archaeology Departament, Romania

The inventory of the necropolis at Tăul Secuilor – generally characteristic for the necropolises in Roman Dacia – is made up of ceramic, metal and glass objects and varia.

The ceramic inventory: the archaeological research in 2004 - 2006 has yielded a great quantity of ceramic material. This is represented by amphorae, pitchers, pots, turibula, tureens, *krateroi*, pedestal bowls, trays, plates, bowls, lids and lamps. Special attention should be given to item discovered in M 112, a T.S. pitcher –probably of Italian origin–, discovered in 2004. One item, discovered in M 235, has a lead glaze, and it is very possible it was produced in one of the workshops at Ampelum (Zlatna). Special attention deserves a lamp with lead glaze, which was very possibly produced in the workshops at Ampelum.

Coins - 84 were collected; 83 of them are made of bronze and one of silver. All the coins they are included in the period between *Hadrianus* and *Marcus Aurelius*.

The metal items are: a golden artefact (the golden earring discovered in M 225 in 2005), as well as bronze, *fibulae*, buckles, mirrors and iron items (knives, casket fixtures, cramps, tacks and spikes).

Glass objects are very well represented by *unguentaria* items and many fragments of vitrified glass.

Varia: three miniature items made of amber and of an important artistic value were discovered in M 205. We must also mention four beads, probably made of bone (three in M 240 and one in M 225).

EXPRESIONS OF PROVINCIAL FUNERARY ARCHITECTURE AT ALBURNUS MAIOR; CASE STUDY: ROMAN CREMATION NECROPOLIS FROM TAUL SECUIOR (ROSIA MONTANA, ROMANIA)

Catalina Mihaela Neagu, Emil Dumitrașcu, Mihaela Simion, National History Museum of Romania, Rescue Archaeology Department, Romania

A Roman incineration necropolis was researched at Tăul Secuilor (*Alburnus Maior*), during the three campaigns. 332 complexes were identified (321 cremation graves, 7

complexes with funerary character, and three funerary enclosures), as well as elements of funerary architecture.

The presence of external structures or layouts of the graves' pits is one of this necropolis' characteristics. Thus we came across both the simple form of the girdle, as well as that of the funerary precinct. Three funerary precincts have been identified and partially researched, one of which is individualized by an elaborate construction system (Funerary precinct no. 3). Regarding the girdles, these were made of stones of different dimensions set in most cases on a single course preserved.

In certain situations, the stone layout followed the rectangular contour of the sepulchral pit (10 graves).

Thus, besides the predilection for the *busta*-type burial, the necropolis is also individualized by the mixed character (barrow-shaped and plane) of the funerary layouts. Also, the large presence of the stone rings and of the funerary precincts, certain peculiarities of the inventory and funerary ware (the presence of the amphorae as offerings, the presence of amber artefacts etc) as well as the low presence of graves in which the cremated remains were laid in different types of recipients (cistae, ceramic urns) can indicate a series of stronger influences from the Balkan space than in the rest of the necropolises at Roşia Montană.

CERAMIC MATERIAL

Irena Kolištrkoska Nasteva, Museum of Macedonia, Skopje, R. Macedonia (FYROM)

The artifacts discovered on the territory of the Republic of Macedonia from the prehistoric period specifically in the Neolithic and Eneolithic, globally are as moveable archaeological material including ceramic materials for every day live in the houses, terracotta household weights for waving and fishing, and other utensils made of terracotta. Besides all the mentioned above, we can add the abundance of archaeological material, made as well of terracotta, which confirms the rich spiritual life of the prehistoric ancestors populating this area. Namely the anthropomorphic and zoomorphic figurines have been adored of different reasons. All these mentioned above, if analyzed separately, are giving certain results for autochthones co-living of this nation, as well as the influences dispersed in their vicinity and in the same time adopting from it. The listed materials are possibility for certain chronological division, i.e. are included in the major cultural complex, named Bujanj – Salkutiča – Krivodol or in a narrow territorial frames, the cultural group named Šuplevec - Bakarno Gumno.

MULTI-DISCIPLINARY INVESTIGATION OF THE NEOLITHIC POTTERY FROM ALBA IULIA - LUMEA NOUA (ROMANIA) SETTLEMENT: TECHNOLOGICAL ASPECTS AND THERMOLUMINESCENCE DATING

Simona Varvara, "1 Decembrie 1918" University, Alba Iulia, Romania
Mihai Gligor, "1 Decembrie 1918" University, Alba Iulia, Romania

Vasile Benea "Babes-Bolyai" University, Cluj-Napoca, Romania
Alida Timar, "Babes-Bolyai" University, 400084 Cluj-Napoca, Romania
Sabrina Gulatieri, CNR, Institute of Science and Technology for Ceramics, Faenza, Italy
Constantin Cosma, "Babes-Bolyai" University, I Mihail Kogalniceanu, 400084 Cluj-Napoca, Romania
Bruno Fabbri, CNR, Institute of Science and Technology for Ceramics, Faenza, Italy

The paper presents the results of an integrated archaeological and scientific investigation on the Neolithic pottery discovered at Alba Iulia-*Lumea Noua* settlement on the right bank of the Mures River in Transylvania (Romania), aiming at establishing the production technology of the artefacts and their absolute age by thermoluminescence method (TL).

The pottery fragments were mostly found in close complexes of the pit-houses, pits and dwelling surface type. Most vessels belong to the black and black-topped ware. The main shapes are biconical bowls and amphorae; the pedestals have cherry-red slip. Painted decoration, applied on the vessels before firing, is made with red, on a reddish or orange background.

The chemical, microstructural and petrographic features of the ceramic bodies were determined by X-ray fluorescence, X-ray diffraction and optical microscopy, respectively. The preliminary obtained data were used to make inferences concerning the pottery's technology in terms of type of raw clays and firing temperatures.

The results of TL dating on several pottery fragments lead to an average age of 6000 ± 400 yr, which is in agreement with the archaeological expectations and with the AMS-C14 dating on teeth and charcoal samples from the same close complexes.

The absolute dating results allow improving the chronological framework for Alba Iulia-*Lumea Noua* settlement.

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MARITIME vs TERRESTRIAL ARCHAEOLOGY: BEYOND BOUNDARIES?

David Berg Tuddenham, Norwegian University of Science and Technology, Museum of Natural History and Archaeology, Norway

Norwegian cultural heritage management differentiates between land and sea, where the cultural heritage management under water is organised in a different manner relative to terrestrial archaeology. This is based partly on practical causes, but it also expresses a comprehension of archaeology under water as special compared to what can be referred to as mainstream archaeology. This perception of archaeology under water as characteristic is also partly communicated through the Norwegian Cultural Heritage Act that refers to a specific section as an important tool in the governing of archaeology under water.

The distinction between maritime and terrestrial is also apparent within research history, where many have pointed out that the communication between those poles has been markedly indifferent in spite of the fact that maritime

archaeology, since Keith Muckelroys classic publication “Maritime Archaeology” in 1978, has worked toward crossing this boundary.

A lot of the honour for a closer coexistence is to be found within Maritime Cultural Landscape studies. The introduction of the Maritime Cultural Landscape concept has shifted the focus from isolated wreck investigations towards a more holistic approach to land and sea. The coexistence between land and sea oriented archaeology is no longer imbued with scepticism, but there is still a difference to be noticed, a difference that might have implications for both research and cultural heritage management.

After 40 years of Norwegian cultural heritage management and research under water, an analysis of this tradition and the dualism to be found within the legislation, management and research therefore is necessary. My theoretical point of departure will be Actor Network Theory (ANT) as presented by Bruno Latour, Michel Callon and John Law. As a theoretical concept, ANT is especially designed to study those mechanisms and processes that are the basis for different ways of defining and describing reality; here the dichotomy between the maritime and terrestrial. I find this theoretical approach useful for a study that aims to “unearth” and reveal networks, mechanisms and alliances behind the presented dichotomy within both Norwegian cultural heritage management under water and research in general.

The PhD project will among other aspects study development on windmill farms in Mid-Norway as a case study. The aim is to analyse how the mechanisms working within the cultural heritage management and revealed by ANT serve the maintenance of the metaphysical dichotomy terrestrial - maritime. What is the consequence for the cultural environment?

HERITAGE TRAILS: BRIDGING THE GAP BETWEEN ARCHAEOLOGY AND TOURISM?

Daniel Borg, Marlene Borg, Kevin Borda, Rachel Radmilli, Katya Stroud and Ernest Vella, Fondazzjoni Arkeo, Malta

As contemporary society enjoys a greater amount of leisure time, it seeks to diversify its interests to incorporate both entertainment and educational experiences. This can be observed in the tourism industry, where organised tours have attempted to combine a variety of such experiences.

Unfortunately the majority of package tours have stripped away the sense of discovery, expectation and wonder which has been the primary attraction for visitors to archaeological sites since well before the Grand Tour. As a result, the average tourist’s experience of Malta’s past has turned into a convenient “three-hour air-conditioned coach tour of the South of Malta”.

In contrast, the widespread use of internet is slowly introducing a new tourist type, the independent tourist, who dares to organise his holiday in an autonomous and creative manner. As a response to this Malta must embark, at a national and local level, on providing efficient and professional tourist information so as to empower this independent tourist and increase local interest.

Heritage trails, which incorporate various aspects of cultural and natural heritage, including archaeology, history, architecture and folklore, and more importantly, the interaction between these aspects, will promote the appreciation of

cultural heritage at a local level, and will empower visitors in their discovery and appreciation of how present experiences are shaped by their past.

PREHISTORIC FLINT MINING IN KRASNE SIOLO (WESTERN BELARUS) AND ITS IMPACT ON NATURAL ENVIRONMENT

Tomasz Kalicki, Institute of Geography, Jan Kochanowski University, Kielce, Poland;
Institute of Geography and Spatial Organization Polish Academy of Sciences, Kraków, Poland

Szymon Kalicki, Institute of Archaeology, Jagiellonian University, Krakow, Poland

Valentina P. Zernitskaya, Institute for Problems of Natural Resources Use and Ecology, National Academy of Sciences of Belarus, Minsk, Belarus

Krasne Siolo is situated about 60 km south-east from Grodno and about 12 km north from Wolkowysk in Grodno district, in Ros River valley. Prehistoric flint mines in area of glaciadislocated chalk in Krasne Siolo were discovered in 1924 by Z. Szmit and later were investigated by N.N. Gurina (1976), M.M. Czarniauski and others (1996).

Rescue researches included only a small area of two major prehistoric exploitation fields which were destroyed by exploitation of the chalk since 1914. During researches in 'chalk tongues' about 700 hundred main shafts were documented and dug up (classified as pits and niche mines). Near shafts flint workshops and multicultural sites were located which served as a settlement for the miners and as a place where the raw material was processed.

The main users of flint mines were Neolithic societies of Globular Amphora Culture and Corde Ware Culture. The beginning of the flint usage from Krasne Siolo can be dated to Final Paleolithic (Tanged Points Cultures) and the end of mining activity falls probably in the Early Bronze Age.

The explored region of Krasne Siolo is situated just few kilometers westward from in detail examined section of Zlewianka valley near Piaski. In pollen diagrams there is a lack of changes in vegetation cover caused by development of the centre of flint mining in the region of the Krasne Siolo in period of settlement by the Globular Amphora and Corde Ware Culture population.

BURIED SOILS IN ONDAVA FLOOD PLAIN (EASTERN SLOVAKIA) AS INDICATOR OF CLIMATIC AND/OR ANTHROPOGENIC CHANGES

Tomasz Kalicki, Institute of Geography, Jan Kochanowski University, Kielce, Poland/
Institute of Geography and Spatial Organization Polish Academy of Sciences, Kraków, Poland

Anna Budek, Institute of Geography and Spatial Organization Polish Academy of Sciences, Kraków, Poland

Marek Nowak, Institute of Archaeology, Jagiellonian University, Krakow, Poland

Marian Vizdal, University of Presov, Presov, Slovakia

This poster presentation focuses on the geomorphological and palaeogeographical characteristics of the Eastern Slovakia Plain near the early Neolithic site (Kőrös

Culture) at Moravany. The settlement is situated on the western slope of the Pozdisovsky Ridge and inhabitants belonged to the first farmers and breeders in this territory. Distinct phase of its deposition could be dated at maximum of last glaciation (19980-19890 BP). Until now there was a lack of evidence for Early Neolithic human activity around the site. The small valleys, as Šarkan, were filled after Late Pleniglacial/Late Glacial incision. According to four AMS-radiocarbon datings, the alluvial filling (2-3 m thick) accumulated after the Maunder minimum (1675-1715 AD) and the alluvial fan roughly between 1440 and 1640 AD. These data indicate strong slope erosion caused by human activity and climatic conditions from the Little Ice Age to the present.

The buried soils on the flood plains of Ondava and Topla rivers indicate a dominance of vertical accretion in the bottom of the main valley and an alternation phases with increase overbank deposition and phases with soil formation. The middle fossil soils were dated in the Topla valley at 4720 ± 300 BP (Bozcice) and in the Ondava valley at 4200 ± 900 BP (Kladzany) whereas the lower and upper ones were combined with the Preboreal and the Subboreal, respectively (Baňacký et al. 1987). New studies on Kladzany site were done. Two levels in the valley bottom were discovered. Sandy-gravel alluvia with remnants of the Late Glacial palaeochannel fill ($10\ 940 \pm 50$ BP; Poz-22367) occurred in the lower part of profile of both levels. These organic sediments of oxbow lake were included as clayey ball (9940 ± 50 BP; Poz-22257) into channel deposits of higher level. Also two buried soils occurred here in overbank deposits. The older soil (1.2 m thick) is well developed and contains in lower part (3.05 depth) artifacts (pottery), charcoals and bones (6130 ± 40 BP; Poz-22366). The upper part of this soil was dated at 5830 ± 40 BP (Poz-22256). The younger buried soil was fossilized at 3140 ± 35 BP (Poz-22254). Periods of changes of sedimentation type on flood plain correspond very well with phases of an increase fluvial activity distinguished in river valleys of Central Europe (Kalicki 2006).

SIGNALS OF ECONOMIC ACTIVITY AT THE EARLY STAGES OF HUMAN SETTLEMENT IN BELARUS

Valentina P. Zernitskaya, Institute for Problems of Natural Resources Use and Ecology, National Academy of Sciences of Belarus, Minsk, Belarus

Tomasz Kalicki, Institute of Geography, Jan Kochanowski University, Kielce, Poland; Institute of Geography and Spatial Organization Polish Academy of Sciences, Kraków, Poland

Signals of economic activity at the early stages of human settlement were recorded but in several out of the 47 studied pollen sequences. This may be due to the related sites being located at a considerable distance from the sequences, as well by their moderate impact on the environment. The first appearance of the pollen of cultural cereals and ruderal plants are acknowledged in the south-west of the country between 6600 and 6000 BP thus, corresponding to the beginning of the Neolithic (ca. 5500-4800 BC/6600-6000 BP). The *Cerealia* and *Triticum* pollen were identified at Peschanoye, Zdidovo (the pollen of cereals found in the sample above one dated to 7020 ± 70 BP, TIn-588), Sporovskoye, Ivanisovka, Dvorischanskoe (6280 ± 150 BP, IGS-1027), Bobrovichskoye (6230 ± 80 BP, IGS-810). This early signals of arable farming in southern Belarus are probably related to the settlements of Linear Pottery Culture. Existing information from adjacent areas provide firm evidence for farming

in the Early Neolithic (7000-6000 BP) in central and south-eastern Poland (Bałaga 1990, Bałaga et al., 2002; Nowak, 1999; Nalepka, 2005), and north-western Ukraine (Paszkevicz et al., 1990; Kotowa, Paszkevicz, 2000).

The pollen of cultural cereals and ruderal plants was found in the deposits of the final stage of Early Neolithic and those of Middle Neolithic (ca. 4200 – 2800 BC/5500 - 4200 BP) in eastern and central Belarus: Ozernoe, Prisna, Zatsenie, Osovets, Neropla (Upper Dnieprian and Eastern-Dnieprian cultures), and Palnitsa (Niemanian culture). Palynological evidences of early farming were obtained for the Middle Neolithic in Lithuania, Latvia and Estonia (Stansikaite et al., 2002, 2006; Veski, 1998; Vasks et al., 1999). Pollen signatures of early farming in the Late Neolithic were found (ca. 2800 - 1800 BC/4200 - 3400 BP) in southern areas of Northern Belarus (Osovets 4, Orehi sites), supposedly related to Narvian and Usvyatian cultures. Pollen of cultural plants (*Cerealia*, *Triticum*) was found in these sections. At about the same time, the *Secale* pollen appears in the spectra of southern regions (Peschanoe, Zditovo, Ozernoe, Bychok), where the sites of Niemanian and Eastern-Dnieprian cultures are known to exist.

Yet human activities in the Neolithic did not result in notable changes in the forest vegetation. The spores of *Pteridium aquilinum* and charcoal dust indicative of small-scale forest fires, were reported only in two sequences, those of Ivanisovka and Neropla. Consequently, the observed fall in *Ulmus* values at the final Atlantic and the decline of several deciduous species in the Subboreal were rather due to the leaching and degradation of soils, as well as the general cooling of climate. The climatic factors were behind the Late Holocene expansion of oak-dark coniferous forests in Belarus.

Signals of early farming are conspicuous in the pollen spectra in Northern Belarus of Bronze (ca. 1800 - 800 BC/3400 - 2700 BP) and Iron Ages (ca. 800 BC-500AD/2700- 800 BP). Yet the pollen of *Cerealia*, and *Triticum* was found only in the immediate vicinity of early settlements (Osveya, Tserkovnoe, Dolgoe). The beginning of bronze and iron metallurgy and metal working in the final Bronze Age and early Iron Age significantly increased the possibilities of forest clearance, thus enhancing the advance of arable farming and cattle-breeding in the northern areas. The rise of the curves of the pollen of ruderal plants, crop and weed species is observed practically in all pollen diagrams from the studied sites. Values of birch and pine pollen increase together with a decrease of the frequencies of deciduous tree species. Intensive human impact on vegetation in various areas of the country starts in the historic period (from 800 AD onwards). The signals of arable farming in watershed areas become reflected in the lithology of alluvial and lacustrine deposits (Kalicki et al., 1997, 2000; Savchik, 2002; Zernitskaya et al., 2001 b; Simakova et al., 2006). The pollen spectra record the clearances of deciduous-dark coniferous and dark coniferous forests, the expansion of deforested areas and the development of secondary forest communities (pine, birch, shrubs).