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# The Archaeology of Communities and Landscapes in the Carpathian Basin. Interdisciplinary Perspectives

Alba Iulia, 20 - 22 October 2022



*Lived Lands Project*, PN-III-P4-ID-PCE-2020-0566, PNCDI III

Alba County Council  
National Museum of  
Unification Alba Iulia

Romanian Academy Cluj Branch  
Institute of Archaeology  
and Art History

# **INTERNATIONAL CONFERENCE**

## **THE ARCHAEOLOGY OF COMMUNITIES AND LANDSCAPES IN THE CARPATHIAN BASIN. INTERDISCIPLINARY PERSPECTIVES**

(the end of the Early Iron Age –  
beginning of the Roman provincial period)

Alba Iulia, 20–22 October 2022

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# CONFERENCE PROGRAM

## 20 OCTOBER 2022

9.00 – 9.40 – Registration of participants – MNUAI Union Hall, north wing

9.40 – 10.00 – Official opening of the conference

### Session 1 – chair Marko Dizdar

10.00 – 10.30 – Lucia Benediková, Mária Hajnalová, Zora Bielichová, Jana Mihályiová, Karol Pieta, Peter Barta, Eva Jamrichová, Libor Petr, Tibor Lieskovský, Jakub Tamaškovič – Settlement dynamics in the northern part of the Western Carpathians from the Late Hallstatt to the Migration Period on the example of Lazisko site (distr. Liptovský Mikuláš/SK)

10.30 – 11.00 – Aurel Rustoiu – The middle Mureş valley during the Early Iron Age. Communities and landscape transformations

11.00 – 11.20 – Coffee break

11.20 – 11.50 – Andrei Georgescu, Adrian C. Ardelean, Adriana Sărăşan – A tale of four sites. Reconstructing the early and middle La Tène habitat in the lowlands of south-western Romania

11.50 – 12.20 – Gertrúda Březinová – Settlement of south-western Slovakia in the La Tène period on the basis of eco-parameters

12.20 – 12.50 – Károly Tankó, András Kovács – Farms, villages and economic centres... What can we know about Late Iron Age cultural landscape use from the archaeological evidence in the Carpathian Basin?

13.00 – 15.00 – Lunch break

### Session 2 – chair Peter C. Ramsi

15.00 – 15.30 – Branislav Kovár, Karol Pieta, Tibor Lieskovský

- Preconditions of landscape research around the hillfort at Trenčianske Bohuslavice

15.30 – 16.00 – Zsófia Sörös – Late Iron Age sites in the vicinity of Arnót (north-eastern Hungary)

16.00 – 16.30 – Marko Dizdar, Boris Kratofil – Late La Tène settlement network in the Vinkovci area (Eastern Croatia). Organization and use of landscape by the Scordisci

16.30 – 16.50 – Coffee break

16.50 – 17.20 – Zoltán Czajlik – Aerial archaeological investigation of Late Iron Age fortified settlements in Hungary

17.20 – 17.50 – Petra Dragonidesová – Settlement of surroundings of lower part of Morava River at the beginning of the Roman period

17.50 – 18.20 – Anca Timofan, Andrei Iosif Buta – Public and private space in urban areas of Apulum. Case study: *Domus-Thermae* Sector (ArcheoDanube Project – Archaeological Parks in urban areas as a tool for Local Sustainable Development)

18.20 – 18.50 – Zdravko Dimitrov, Vladislav Zhivkov – Rome and the “Moesians”. The end of the Iron Age south of Danube (1<sup>st</sup> century AD)

19.30 – Dinner

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**Session 3 – chair Aurel Rustoiu**

9.00 – 9.30 – Iosif Vasile Ferencz – Aristocratic residences in south-western Transylvania. Reflections on the functionality of the so-called Dacian fortresses

9.30 – 10.00 – Paul Pupeză – The hill behind the hillfort. Reverse engineering the construction of the Dacian hillfort from Covasna – Cetatea Zânelor

10.00 – 10.30 – Andreea Drăgan – Tower houses of Late Iron Age Dacia in the relational conceptualization of space

10.30 – 11.00 – Adrian Căsălean – Late Iron Age “downtowns”: Some perspectives regarding the organization and functionalities of public squares within the Dacian habitats from the eastern Carpathian Basin

11.00 – 11.20 – Coffee break

11.20 – 11.50 – Roxana Grindean – Pollen-based quantitative reconstructions of Holocene land cover in the Romanian Carpathians and adjacent lowlands

11.50 – 12.20 – Beatrice Ciută – Ancient diet reconstruction of the communities from the *villa rustica* at Oarda-Bulza

12.20 – 12.50 – Georgeta El Susi – Animal management in *villa rustica* from Oarda-Bulza (Alba County) and its impact on the environment

13.00 – 15.00 – Lunch break

**Session 4 – chair Lucia Benediková**

15.00 – 15.30 – Malvinka Urák – Animals. Shaping landscapes and modelling human minds. A case study of the Late Iron Age settlement from Giarmata

15.30 – 16.00 – Mariana Egri, Georgeta El Susi, Iosif Vasile Ferencz – Meat

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consumption between body nourishment and social statement.  
The case of pre-Roman Dacia

16.00 – 16.30 – Saša Kovačević – Monumental burial mounds in Jalžabet and Martijanec as parts of the Early Iron Age landscape in the Pltivica – Bednja Rivers Basin (NW Croatia)

16.30 – 16.50 – Coffee break

16.50 – 17.20 – Peter C. Ramsel – Sacred spaces and communication lines: Case studies in Eastern Austria and Alpine areas

17.20 – 17.50 – Sándor Berecki – Celtic period ritual landscapes in the eastern part of the Carpathian Basin

17.50 – 18.20 – Boris Kavur – The mind is a safe place to be... Landscapes in memory and perception of past societies

18.20 – 18.50 – Concluding discussions

19.30 – Dinner

## **22 OCTOBER 2022**

8.30 – 18.00 – Field trip to the Dacian fortresses in the Sarmizegetusa Regia area

### **Settlement dynamics in the northern part of the Western Carpathians from the Late Hallstatt to the Migration Period on the example of Lazisko site (distr. Liptovský Mikuláš/SK)**

LUCIA BENEDIKOVÁ, MÁRIA HAJNALOVÁ, ZORA BIELICHOVÁ,  
JANA MIHÁLYIOVÁ, KAROL PIETA, PETER BART, A, EVA JAM-  
RICHOVÁ, LIBOR PETR, TIBOR LIESKOVSKÝ, JAKUB TAMAŠKOVIČ

Lazisko (distr. Liptovský Mikuláš, Slovakia) is the hill top site situated on the northern promontories of the Low Tatra Mountains belonging to Inner Western Carpathians. Excavations and surveys in late 1980s, early 1990s and 2000s reveal the fortification rampart as well as habitation areas within the enclosed area represented by the houses with a log construction on the stone foundation wall. Settlement terraces were detected on the slopes inside and outside the fortification wall. The ground plan of the site with human activity marking features can be clearly recognized also on the recent visualisations based on the LIDAR data. The artefactual assemblage is represented by pottery and metal (mostly iron) items. Based on the archaeological artefactual sources the use of site was set within three time horizons – Late Hallstatt to Early La Tène period, La Tène period, Late Roman to Migration Period.

The ecofacts – archaeobotanical as well as archaeozoological materials – were retrieved during excavations, too. Archaeobotanical material was recently floated and analysed. It yielded the information about the spectrum as well as about the distribution and way of use of the plants on the site. The archaeobotanical assemblage was sampled for the radiocarbon dating. Absolute data mediate slightly different picture from the relative archaeological dating of the first stage of the site occupation. Archaeozoological sources were also evaluated and discussed from the point of view of spectrum and ways of use of animals by local inhabitants. Ecofactual assemblage was evaluated in the context of other known facts about the use of plants and animals in the time from the Late Hallstatt to the Migration Period.

Site database of the region was created and is presented on the maps for each of on-site represented occupation horizons. Currently, new series of the site hinterland surveys is being carried out in its vicinity.

The picture about the settlement dynamics in the region is completed by palynological data from nearby Demänovská slatina mire.



This work was supported by the Slovak Research and Development Agency under the Contract no. APVV-20-0044, by the grant VEGA No. 2/0035/22, and by the Mobility / SAV-RA project no. RA-SAS-22-03.

## **The middle Mureş valley during the Early Iron Age. Communities and landscape transformations**

AUREL RUSTOIU

This paper is going to discuss the manner in which different communities living on the middle Mureş valley contributed to the transformation of the landscape throughout the Early Iron Age, as well as the nature of these transformations from one chronological phase to another, based on the analysis of their economic, social and ritual practices. This analysis demonstrates that during the mentioned period there were two different models of transforming the landscape on the middle Mureş valley, each primarily based on the control and distribution of natural resources. The first model is defined by the existence of a “central place” located at Teleac, which controlled a wider hinterland along the river. The second model belongs to the Scythian horizon, being characterized by a decentralized and more competitive manner of gaining power and exerting control at both the community and the inter-community level, which can be described as heterarchic.

## **A tale of four sites. Reconstructing the early and middle La Tène habitat in the lowlands of south-western Romania**

ANDREI GEORGESCU, ADRIAN C. ARDELEAN, ADRIANA SĂRĂŞAN

The aim of this paper is to present the results and goals of an ongoing project aimed at reconstructing the habitat of the early and middle La Tène period in the lowlands of south-eastern Romania. For this endeavour four sites have been chosen for different types of investigation, both invasive and non-invasive. The aim is to try to reconstruct the internal organisation of the communities, sketch out some of the agricultural and land use strategies as well as attempt to identify the main cultural and commercial connections of this area. For this purpose we will make use of geophysical measurements, high-resolution DEMs,

test-trenches and recently excavated settlements. The importance of this project is underlined by the sheer lack of data concerning the habitat of 4<sup>th</sup> to 2<sup>nd</sup> centuries BC in this borderline region between Central and Eastern Europe and the Balkan Peninsula.

### **Settlement of south-western Slovakia in the La Tène period on the basis of eco-parameters**

GERTRÚDA BŘEZINOVÁ

The region of interest consists of the geographical area of the central Danube Region, which defines the lower and intermediate flows of the Morava, Váh, Nitra, Hron, Žitava and Ipel rivers. For this area, the flat terrain of the Danube Lowland and the near north-south orientation of the mountains are decisive. The term natural environment must be understood as the sum of all natural conditions in a certain territory, which means both landscape conditions such as relief, geological bedrock, soil, vegetation and fauna, as well as the climatic environment. Settlements were concentrated in this territory mainly in fertile lowlands. It followed well-defined criteria well captured on graphs representing the output of individual eco-parameters monitored in housing estate locations, or rather only at selected sites that have been shortlisted. Out of a total of 425 sites, 103 made it into this selection.

### **Farms, villages and economic centres... What can we know about Late Iron Age cultural landscape use from the archaeological evidence in the Carpathian Basin?**

KÁROLY TANKÓ, ANDRÁS KOVÁCS

Archaeological research over the past two decades has significantly increased our knowledge of Late Iron Age settlements in the middle of the Carpathian Basin. The large-scale excavations and the uncovered finds open up a new dimension to a broader understanding of everyday life in the La Tène culture. The location of farms, villages and larger fortified settlements with buildings, ditches and pits inside them, can indirectly indicate the type of subsistence strategies and the level the surrounding landscape was being used on. The types of landscape

usage may also be determined by the finds recovered, of which the various iron tools deserve particular attention. In this presentation, we are going to focus on iron tool finds and, in the light of the possibilities and on the basis of some representative archaeological sites and examples, we will try to outline – on the basis of the tool finds found there – the type and extent of landscape use that can be specified of the La Tène culture in the Carpathian Basin.

### **Preconditions of landscape research around the hillfort at Trenčianske Bohuslavice**

BRANISLAV KOVÁR, KAROL PIETA, TIBOR LIESKOVSKÝ

The hillfort site of “Malovecké” (also Hájnica), at Trenčianske Bohuslavice in western Slovakia, has been famous since the end of the last century when a depot of Celtic coins was found there. Subsequently, the location was significantly disrupted by treasure hunters with metal detectors. The extensive collection of finds is being processed and evaluated.

The site is on the hill with a big plateau on the top. It is on the old communication route along the river Váh, from which the road then branches off to Bošácka basin and then to Morava. The flat summit of the hill with steep slopes was fortified with two lines of ramparts with visible gates. The fortification has probably 9 hectares.

Sporadic finds from the Late Bronze Age, late Roman period and the migration period were found there. The settlement from the La Tène period is dominant on the site. Also found there were burnt, destroyed features and hundreds of metal finds. The processing of metals is confirmed by craft tools, iron wreck, silver, bronze bullions and ingots, and manufacturing waste. The origin of the hillfort on the basis of archaeological finds can be dated to the period from level LTC2 to beginning LTD1. The end of the hillfort is dated to the end level LTD1. The hillfort has characteristics of an oppidum. Young artefacts are very sporadic. The tiny copper or bronze statuette of the ancient Egyptian god Osiris was found on the hillfort. It is proof of long-distance contact on the site.

The preliminary analyses of coins and abundant collection of jewels and utility goods showed that site had extensive contacts mainly with Trenčianske Bohuslavice mainly Czech-Moravia, south Germany (of the Velem and Kapos types), Pannonia area and Roman empire (a

republican aes was found there). We do not have a lot of imports from the Puchov culture, which is strange because the area of the Puchov culture is just 20 km away.

The hillfort from Trenčianske Bohuslavice was part of landscape in the La Tène period, and we identified new archaeological sites around it. These new locations can help to us understand of development landscape around hillforts. Before regular archaeological excavation, we did analyses of landscape around hillfort with LIDAR technology.

### **Late Iron Age sites in the vicinity of Arnót (north-eastern Hungary)**

ZSÓFIA F. SÖRÖS

In the last few decades in Hungary, the Sajó-Hernád Plain became one of the most studied areas of the Late Iron Age research. The sites at the border of the North-eastern Mountains and the Great Hungarian Plain provide an important contribution not only to the relationship between the settlements and the cemeteries but also to the land use. Through the analysis of the location of the sites, it is possible to examine how the different communities used their environment, and how the different environments formed the communities themselves. The observable site concentration in the micro-region can be explained by its location. Because of the Sajó and Hernád river valleys, their confluence zone, and the proximity of the Tisza River, we have to deal with a region where important communication routes met.

The talk aims to present two non-published sites in the micro-region: a settlement at Arnót – Arnót oldal I, with a partly excavated building and pits, and a cemetery at Arnót – Arnóti oldal Dél, with five graves excavated in 2014 by the colleagues of the Herman Ottó Museum (Miskolc). The sites were 250 m far from each other, and it cannot be excluded that they were contemporaneous. The name of Arnót is not unknown in the research, as in 1969, Tibor Kemenczei led excavations in the vicinity of the village after sand mining destroyed Late Iron Age graves. A *pars pro toto* chariot burial also came to light during the earthworks. The relation between the two cemeteries is hard to determine, as there is no exact data on the location of the latter. Based on the grave inventories, the cemetery or cemeteries at Arnót were in use during the LT C1 period. The find assemblage (Hungarian-type, astragaloi

12 | belt fragments, Ringe mit schnurartiger Verzierung) allows the mapping of long-distance links between different communities that confirms the aforementioned existence of communication routes in the region.

### **Late La Tène settlement network in the Vinkovci area (Eastern Croatia). Organization and use of landscape by the Scordisci**

MARKO DIZDAR, BORIS KRATOFIL

Present understanding of the Late La Tène material legacy of the Scordisci in the western area of their territory in Eastern Croatia, i.e. in the Western Syrmia and Eastern Slavonia, for now is mostly based on the numerous researches undertaken in the area of Vinkovci and its surroundings. Because of that, this area represents the best known Late La Tène settlement network in Eastern Croatia. This network includes fortified settlements, most often formed at positions of multi-phase prehistoric settlements located along the Bosut River (i.e. Dirov Brijeg in Vinkovci, Orolik, Privlaka) which were dated to the later phase of the Middle and Late La Tène according results of trial and rescue excavations. These settlements were considered to be the economic and administrative centres of the communities organized around them. In the last twenty years numerous new lowland settlements were discovered during field surveys, generally dated to the Late La Tène. The analysis of the collected finds, and especially their number and categories at some settlements, shows that these are also centres that were included in the complex networks of contacts, often with remote areas. Therefore, the Late La Tène settlement network seems to have been extremely complex and more extensive research will be needed to better understand it, especially research on contemporaneous cemeteries.

### **Aerial archaeological investigation of Late Iron Age fortified settlements in Hungary**

ZOLTÁN CZAJLIK

The aim of our presentation is to discuss the aerial archaeological survey of the Late Celtic fortified settlements prospected in Hungary.

During the collection of the topographic data for the aerial archaeological investigations, we relied mainly on the earlier works of Éva Petres, Miklós Szabó and Gyula Nováki, but in the course of our research, we carried out our own field surveys as well, and in two cases – specifically at Velem-Szent Vid-hegy and at the Gellért Hill – we participated in the latest excavations in the framework of the French-Hungarian research program, while at Bába-Öreghegy we conducted our own fieldwork.

The basis of our presentation are the aerial photographs taken between 2000 and 2017 that in many cases allowed us to refine and complete the initial conclusions drawn on the basis of the previous researches. In several instances, we identified previously unknown fortification traces and collected archaeological finds outside the central, fortified areas, which transformed our knowledge on the size and intensity of the settlements and helped us in distinguishing between *oppida* and smaller Late Celtic fortified settlements.

### **Settlement of surroundings of lower part of Morava River at the beginning of the Roman period**

PETRA DRAGONIDESOVÁ

Since the beginning of Roman period was the surrounding area of lower part of Morava River a place of encounter of two different worlds. First one was a Roman Empire, with its borders on the Danube River – *Ripa Pannonica*. The second one was barbarian world, which settled the northern area of a Danube river. Barbarians – Marcomanni and Quadi – were living in settlements in this area during the whole Roman period (1<sup>st</sup> – 4<sup>th</sup> century AD). Their settlements were open, without fortification, usually founded in the lowlands near a water source. They lived associated in clan and generic groupings, forming larger or smaller tribal groupings. Graveyards were located nearby the settlements. Typical burial rite was cremation but we can find also few richly furnished inhumation graves from the Roman period. These graves were of the ruling elite of Germanic people. Due to the proximity of Roman Empire got the Romans and barbarians in touch in different kinds of interest: trade, power and military. Evidence of these encounters are the archaeological finds of Roman pottery, bronze vessels, jewellery made out of precious metals and various small finds found at Germanic settlements and in Germanic graves.

## Public and private space in urban areas of Apulum. Case study: *Domus-Thermae* Sector (ArcheoDanube Project – Archaeological Parks in urban areas as a tool for Local Sustainable Development)

ANCA TIMOFAN, ANDREI IOSIF BUTA

Apulum was a great cosmopolitan centre of Roman Dacia, the largest Roman conurbation in this province founded by Emperor Trajan after the conquest of the Dacian kingdom in 106 AD. Apulum is the generic name of a complex that includes: the fortress of the Legio XIII Gemina, the seat of the governors of Dacia (*praetorium consularis*), two urban centres, and two large necropolises. Together with the construction of the Roman fortress, a civilian settlement called *canabae* emerged. The settlement developed fast around the fortress, reaching to fulfill in 197 AD the conditions for access to the first urban status. Thus, Emperor Septimius Severus, due to the fidelity of the legion, expressed gratitude and accepted *canabae* to become a city with the name of *Municipium Septimium Apulense*.

The presentation focuses on the discoveries made during the preventive archaeological research carried out in Apulum, in 2009 and 2019, which led to the uncovering of a part of the urban area near the fortress (*canabae legionis/municipium Septimium Apulense*). The researched area is located approx. 400 m SE of the camp of the Legio XIII Gemina, in a possible residential area intended for the Roman army and administration. Based on the most important discoveries made here, the investigated sector was named *Domus-Thermae*. Here were discovered: a Roman house – *domus* type, a part of the Roman baths (*thermae*), a road, and a small building consisting of two rooms.

The most important discovery is the Roman house (*domus* type), which occupies a large area and probably belonged to the family of a local authority. It was built after the second half of the 2<sup>nd</sup> century AD. The building has at least two phases of construction, with a typical planimetry, the rooms being arranged around a *peristylum* courtyard. It was discovered one side of the colonnade with four column bases that flanked an ancient monument (altar or statue base). The family had set up a place of worship (*lararium*) for the protective gods of the house, in which there was a small bronze statuette representing Venus, the goddess of beauty and love. Inside the house were identified numerous

fragments of painted plaster collapsed on the floor depicted figurative scenes.

The thermal building in the *Domus-Thermae* area was discovered during preventive archaeological research in 2009, near Miron Costin Street in Alba Iulia. Several spaces of the E-W oriented thermal complex could be investigated: an apsidal structure, strongly heated (*laconicum*), then another heated space – *caldarium* – intended for hot water baths, and *tepidarium* – a larger room, heated underground by the floor and vertically by the walls in which the bricks with four protuberances (*tegulae mammatae*) were mounted. Three furnaces have been installed to provide hot air in the specific *hypocaustum* heating installations in these rooms.

The preventive archaeological research carried out in this area of the Roman site Apulum, brings important information regarding the Roman urban organization, a vast area being uncovered, public and private buildings built in this part of the Roman city being discovered. Also, the identification of a Roman road brings important information regarding the street plots and the living in the city during 2<sup>nd</sup> and 3<sup>rd</sup> centuries AD.

Currently, the Roman buildings discovered in the *Domus – Thermae* area are the subject of a future project regarding the construction of an urban archaeological park in this area of Alba Iulia.

## **Rome and the “Moesians”. The end of the Iron Age south of Danube (1<sup>st</sup> century AD)**

ZDRAVKO DIMITROV, VLADISLAV ZHIVKOV

The report examines the settlement system in the Northwest Bulgaria. Different finds show intensive contacts with the Romans, who integrated the locals in the supply system of the Roman limes. Recent excavations and revaluation of old materials testify for emergence of many new settlements in the modern region of Northwest Bulgaria at the end of LT D2 period and the beginning of 1<sup>st</sup> century AD. It seems likely that at least some of them emerged by the time when some of the “Getae” were resettled south of Danube by Aelius Catus. The excavations at Sinagovtzi site revealed the first and currently the only one native necropolis after the end of the so called “Padea-Spahii” group.



16 | Some jewellery finds from the graves seems typical for pre-Roman Dacia and support the northern origin of this new (?) population.

It seems that at the end of the 1<sup>st</sup> century AD those “new” settlements ceased to exist. Although it is difficult to establish a narrow date for this decline, it is possible that at least some of them were destroyed. A hoard of bronze vessels and the destroyed Roman camp at Almus testify for a cataclysm in the 80s of the 1<sup>st</sup> century AD – the wars between the Dacians and Emperor Domitian.

### **Aristocratic residences in south-western Transylvania. Reflections on the functionality of the so-called Dacian fortresses**

IOSIF VASILE FERENCZ

Perhaps the structures with the highest visibility, among those that appeared in the landscape of the time of Burebista, or shortly before his reign, were the so-called “fortresses on heights”. They still attract attention today and are considered to be true “emblems” of Dacian civilization. They were designated as “fortresses”, taking into account only the defensive potential of these ensembles. However, some older and newer research has shown that the so-called Dacian fortresses were in fact fortified noble residences.

Inside the fortified enclosures with stone or earth walls and palisade there is always a large building. Its architecture is always different from the others and it is placed in a dominant position. The most numerous such buildings have the shape of the so-called “tower-dwellings”.

Inside the precinct, buildings have often been identified, sometimes interpreted as barracks, workshops or simply houses belonging to members of the nobleman’s suite. Some constructions were discovered near the fortified space, which were interpreted as temples. It should also be noted that settlements developed at the foot of the hills on which they were located. They carried out economic activities, operated workshops and a whole community developed in association with the noble residence.

From an overall perspective, the way in which the landscape was shaped by the Dacian communities in south-western Transylvania, we can see that the social organization of the time is also reflected. The dominant position was occupied by the nobleman, followed by

members of the suite, and at the base of the hill are found the ordinary people.

The vertical organization of the space is observed on the surface of each site in this category. This is the case of the “Cetățuie” hill from Ardeu, systematically researched in the last two decades. A thorough investigation of such a site can provide a model, on the basis of which the particularities of larger objectives can be more clearly understood.

### **The hill behind the hillfort. Reverse engineering the construction of the Dacian hillfort from Covasna – Cetatea Zânelor**

PAUL PUPEZĂ

The Dacian site of *Cetatea Zânelor* (*Fairies Fortress*) is placed on a high hill (930 m) nearby the city of Covasna. The surface reshaped by the Dacians is nearly 30,000 m<sup>2</sup>; the useful space that could be built on covers 8,000 m<sup>2</sup>. Using LiDAR scans, 3D terrain modelling, aerial photos, topographic plans and stratigraphic drawings we can get an accurate picture of the intervention scale made on the hill during the Dacian Kingdom. How the Dacian changed the landscape to construct the hillfort and why this particular hill was chosen are the main topics of this presentation.

### **Tower houses of Late Iron Age Dacia in the relational conceptualization of space**

ANDREEA DRĂGAN

One of the key features of the Late Iron Age in Dacia is the emergence of settlements which use natural or man-made structures to delimit and organise their core areas. In most cases, these settlements impress by their location on an elevated landscape, such as hill-tops or mountainous plateaus, which are difficult to access owing to natural slopes. The defensive purpose of the particular choice of landscape and respectively of the man-made delimitations has often been highlighted in the past. However, in line with more recent approaches in the archaeology of the European Late Iron Age that explore the symbolic

18 | use of space as means of conveying social or cultural messages, more recent perspectives focus on complementary functions of the Dacian fortified settlements that integrate the particular use of landscape.

Starting from the theories of relational space, this presentation will only deal with one emblematic construction in the architecture of fortified settlements, the tower, generally described as a tower house/dwelling. From the point of view of the relational space, choice of location and organisation of space mirror social relations within the narrow and broader community. The relational space, as the product of a negotiated interaction between physical and cultural elements, is viewed as an artefact of competing actors with variable capacities to transform the landscape and thus manipulate the interaction of an individual with the physical environment. By using both the objective elements of human experience, by directing the movement through the physical space, and subjective elements, which encompass the emotional perception of the individual triggered by sensorial experience and imagination, these actors manipulate a speech about the land.

The presentation will explore the possible functions of the tower as part of a manipulated speech about the land, starting from its location within the narrower and broader landscape and its relation to the internal organisation of settlements. The goal is thus to understand the actors behind the relational space and the relationship between them.

### **Late Iron Age “downtowns”: Some perspectives regarding the organization and functionalities of public squares within the Dacian habitats from the eastern Carpathian Basin**

ADRIAN CĂTĂLIN CĂSĂLEAN

From ancient times until the present most habitats were provided with at least one space, more or less central, free of households or structures with practical functions. Today, several anthropological studies view these areas of the habitats as multipurpose establishments animated by actions of their respective individuals, groups and communities. The latter, most likely predetermined the placement of public spaces and consequently changed the landscape, as well as the organization of the habitat. Accordingly, the layout and materials used in building public squares, as well as the roles intended for the

surrounding structures reflects several cultural, political, spiritual and economic views and practices of their users. At the same time, they suggest the needs and values of their users, as well as their perception upon themselves and the relation with different types of authority. Some researchers stress that the way in which public areas were organised and maintained influenced the lifestyle of individuals and groups, as well as their mental health, opinions and behaviours.

Based on the archaeological data published from sites belonging to the Dacian horizon in the eastern Carpathian Basin and on the concepts developed within anthropological studies, this paper aims to analyse the structure, functions and symbolic meaning of several public squares, as well as the nearest structures associated with them. Consequently, the relation between the squares and nearby structures is one of the main topics that will be further discussed in the attempt to recreate ones view upon the Late Iron Age “downtown”. Mainly, the discovered public spaces within Dacian habitats consist of arranged or paved areas, clearly delimited, covered by thin soil levels, poor in archaeological material, situated in different parts of the habitats. In spite of this, the surrounding structures suggest diverse functions and ways in which the public spaces may have been used, while some indicate the agents most likely involved in their proceedings. Finally, this study aims to compare the analysed data provided by the same chronological framework, in order to observe similar or different characteristics of the habitats and of the communities who build them.

## **Pollen-based quantitative reconstructions of Holocene land cover in the Romanian Carpathians and adjacent lowlands**

ROXANA GRINDEAN

Palynology is considered the best-suited ecological technique to interpret and reconstruct past vegetation patterns, and can be effective in attempting to understand the possible future implications of environmental change. However, reconstructions of past vegetation patterns and distribution based on pollen analysis have proved ambiguous due to some limitations in palynological data interpretations. Consequently, interpretation of pollen diagrams remains rather subjective and based on intuition. Models that estimate broad patterns of pollen and vegetation characteristics, such as pollen dispersal and deposition, have been

20 | developed with the aim to improve our understanding of the pollen-vegetation relationship, and moreover, our interpretation of long-term paleoecological records.

This research focused on four fossil palynological records, including modern pollen and vegetation data extracted from the low- to mid-altitudes of the Romanian Carpathians. The aim was to apply the Regional Estimates of Vegetation Abundance from Large Sites model (REVEALS) to both modern and fossil pollen spectra in order to obtain a more accurate representation of vegetation composition and distribution throughout the Holocene. Data regarding vegetation patterns extracted from recent land-cover maps of the study area (CORINE Land Cover inventory 2000) have been used to ensure robustness of the link between pollen and vegetation resulting from our long-term records.

### **Ancient diet reconstruction of the communities from the *villa rustica* at Oarda-Bulza**

BEATRICE CIUȚĂ

In this paper we present the archaeobotanical results of soil samples recovered from site Oarda-Bulza (Alba County, Romania) during 2021 campaign. We describe and interpret the possible utilization of macrobotanical remains which have been identified in soil samples taken from different archaeological contexts associated with the Roman *villa rustica* at Oarda-Bulza. Based on these species, we will try to reconstruct the ancient diet of the communities which inhabited the *villa rustica* from Oarda-Bulza and their connection with the city of Roman Apulum located nearby.

### **Animal management in *villa rustica* from Oarda-Bulza (Alba County) and its impact on the environment**

GEORGETA EL SUSI

During the 2020-2021 archaeological excavations in a very large Roman *villa rustica* at Oarda-Bulza (Alba County), a consistent faunal assemblage was collected. Of the 955 remains, 27 rodent fragments (mice, rats) and one from a frog do not belong to the animals involved

in the site's economy; in addition, four snails (*Helix* sp) as a natural layer deposition were found. We also mention two fragments of eggshell from poultry, also documented by animal remains. Basically, mammals, poultry, and shells were of nutritional and utilitarian importance. The sample collected from the three sectors includes 955 animal remains, of which 622 (65.13%) are indeterminate flakes, usually less than one cm in length. Domestic mammals account for 98.48%, compared to 1.52% of wild debris. These are two bone fragments from hare and two from fox, most likely caught for fur and meat (hare). The large amount of small splinters (most of them burnt) suggests the periodically cleaning of the space; the deposition of bones was characterized by small, stray debris, most of them coming from small-sized specimens as sheep, goat, pig. In the case of cattle, ribs, vertebrae and phalanges also predominated. Among domesticates animals, small ruminants prevail with 39.16%, cattle rank the second with 37.64% and domestic pigs with only 19.39%. Among small ruminants, sheep bones predominate. According to the slaughter profiles, the wool exploitation was obviously targeted. Goats were raised for dairy products and meat. Pig was a meat source throughout the year and cattle was predominantly managed for derivate products. Among mammals, dog and fox are excluded from consumption. In the case of the horse, its occasional using is notable. Hunting was probably practiced occasionally for furs, recreation; it was not an indispensable source of meat. Some 13 red deer antler flakes were recovered from the main building; most likely, they came from the processing of this raw material. Poultry was a significant component, higher than the percentages obtained (1.26%). Thus, 11 chicken and one goose remains were identified. As a last interesting aspect, the most numerous rodent remains were gathered from the annex B and from the barn, probably in connection with the grain stored there.

### **Animals. Shaping landscapes and modelling human minds. A case study of the Late Iron Age settlement from Giarmata**

MALVINKA URÁK

When understanding and explaining the changes that intervene in a landscape, we broadly assume that it is the result of manmade activities, climate or other environmental factors. There is an agent whose impact is widely neglected in this equation, and that is the animals.

The analysis of the faunal remains often promotes their interpretation regarding consumption and labour exploitation. But we must consider farm animals as living entities that shape the space they inhabit. Although the archaeozoological remains from a settlement are not a direct testimony of the size or dimension of the livestock, the diversity of the species can hold valuable information regarding the territorial features, land exploitation and division.

The landscape is usually understood for agricultural use and as a source of raw materials. Analysing the topography, geomorphology and soil types, exposure to sunlight, annual rainfall and water drainage, we can observe that all these attributes favour the spread of a specific flora or the disappearance of certain plants, defining the type of grazing or the crops that can be cultivated. Some plants assist fertility by fixing nitrogen or concentrating minerals in the soil, whilst others are invasive species that kill the plants suitable for fodder. Acid soils and wetland, for example, favours nutritionally poor grass species. All these attributes combined define the livestock dimensions, the location where they can be kept, or the frequency with which they need to be moved.

Animals need food, water, and shelter, the latter implying the establishment of fencing. Their pasturing and fodder differ from species to species. For instance, cattle consume taller grass and have a more significant need for daily water input. Ovicaprines prefer shorter vegetation species and obtain most of the water from the plants they consume. Goats, in addition to these plants, chew on shrubs and bushes.

On the other hand, omnivorous pigs have a more diverse food palette and are more accessible to fodder. They take advantage of the resources the forests provide and can be fed with kitchen waste. They graze and seek nutrients by rummaging the soil, which can alter the quality of the pasture. Besides grazing, domestic animals require fodder for the period of calving, lambing, and winter; not all species can scratch for vegetation under the snow with their hooves, like the horse doe.

Adding the animal factor, we can understand different choices and decisions within the life of the particular community, like the placement and inner structure of a settlement or the possible exploitation modalities of the surrounding lands. Learning each species' needs can help us understand the flora and, in general, the paleoenvironment of a region and the transformation that occurred in the landscape.

There is another aspect which is advisable not to lose sight of. Having animals dictates the community's seasonal and daily rhythm and

implies a responsibility; the animal's needs influence the decision a community takes, but most of all, living entities constitute livestock. Therefore, the interaction of humans and animals cannot be perceived as emotionally neutral but more as a symbiosis, where not only do humans affect animals' life, but animals do shape the landscape and model the human mind.

### **Meat consumption between body nourishment and social statement. The case of pre-Roman Dacia**

MARIANA EGRI, GEORGETA EL SUSI, IOSIF VASILE FERENCZ

A number of recent anthropological studies have shown that throughout the entire human history various collective convivial practices were used to maintain social cohesion by sharing life-supporting, multi-sensorial and even emotional experiences. These were also highly effective social-political and economic instruments through which identity, power and authority were gained and reiterated. Therefore, specific norms and beliefs guided each stage, from sourcing to organization, to consumption, to discarding.

In this context, recent archaeological studies focusing on collective feasting in temperate Europe during the Late Iron Age primarily discussed the impact of Mediterranean wine and drinking-related implements on the dining styles of different communities and social groups. Though this has been a fruitful avenue of research, allowing a better understanding of particular aspects which influenced the local social dynamics, it had also overemphasized, perhaps unintentionally, the importance of alcohol consumption within these feasts, while other important elements were left in the background. However, within these carefully staged events in which each detail played a both practical and symbolic role, foreign wine was often just one, though perhaps enhancing, element alongside many others which were mainly sourced locally.

One of the locally sourced elements was meat – a type of foodstuff whose sourcing, preparation and consumption was, according to several anthropological and ethnographic studies, frequently associated with the male, warlike identity. For example, literary and archaeological evidence underline the central role played by meat roasting within the feasts of Bronze Age Aegean or those ending the royal Macedonian hunts. Meat was also considered a suitable means of communicating



24 | with the supernatural world among many ancient communities, so animals were sacrificed, cooked, and shared for/with the divinity.

Thus the central questions of our investigation are whether meat consumption was also an integral part of the collective feasts from Late Iron Age Dacia, and then which were its practical and symbolic functions, and what this practice can tell us about the local social dynamics. Our investigation is based on the contextual analysis of some categories of archaeological evidence coming from different Late Iron Age Transylvanian sites. These include certain categories of metal artefacts which are commonly used to prepare and serve meat – forks, flesh-hooks, firedogs, gridirons and skewers – as well as osteological remains.

### **Monumental burial mounds in Jalžabet and Martijanec as parts of the Early Iron Age landscape in the Pltivica – Bednja Rivers Basin (NW Croatia)**

SAŠA KOVAČEVIĆ

Recent rescue excavation of the monumental burial mound Gomila in Jalžabet, in the Drava River valley east of Varaždin (NW Croatia) brought to life large amount of finds and a brand-new data about this particular monument. But, simultaneously, they instigate need to get to know better cultural and natural landscape with two Early Iron Age settlements and necropolis in Jalžabet and nearby Martijanec. Also, a huge number of samples and finds taken from the burial chamber of Gomila in Jalžabet requested a multidisciplinary approach. The results of the rescue excavation in Jalžabet, the first conducted interdisciplinary analysis as well as current data about broader cultural landscape in the Pltivica – Bednja Rivers Basin will be presented in the lecture.

### **Sacred spaces and communication lines: Case studies in Eastern Austria and Alpine areas**

PETER C. RAMSL

This paper begins by trying to identify how space was seen in prehistory: if you look at methodologies on “space”, there are, for example, cognitive maps based, among other things, on a collective memory of

societies. There are some examples from the Bronze Age, where the mental and physical appropriation of space by prehistoric people is discussed (Ballmer 2016).

In the case of collective memory, the question, how this was done in the Iron Age, arises. How, for example, ring costumes have been seen and evaluated? Are they indicators of social identities (also in contrast to fibula costume, which is more of a fashion trend)? How are such views or rules stored in collective memory? What about panoply? Are “old” weapon combinations present in memory? What role does the habitus play in this?

Space is not only huge and the “width”, it is also social space and in small places.

Here, we want to mention some case studies to present the view on the spatial dimensions:

a) Mannersdorf am Leithagebirge with the ford Wasenbrück (and general Leitha-fords): At this point, the view of things is to discuss, in our case, also the connections across the Leitha Mountains, old “Hohlwege” (sunken paths) (see Doneus 2013), which go from Mannersdorf to Donnerskirchen and Purbach. It is a “dynamic interaction between people and environment”.

b) Sanctuaries in cemeteries as Franzhausen and Walpersdorf (precursor of the “sanctuaries” as in Roseldorf). Here we can realise sacred landscapes and the different kind so see and show “memories”.

c) Südtirol, Trentino, Lombardia: view FROM and TO the Alps – landscape and communication:

On the one hand we can mention the Etschtal and Nonstalas “landscape of finds” and connection lines. On the other hand, there are mentally tangible boundaries that show themselves in the landscape. One example is the view from the mountains over Garda to the south (and vice versa). Another example is the “Kanaltal” (Val Canale, Val Cjanâl, Kanalska dolina) with the view into the plain and to the mountains, which seems like a wall or the view from the Isonzo to the Karst of Slovenia.

## **Celtic period ritual landscapes in the eastern part of the Carpathian Basin**

SÁNDOR BERECKI

Ritual actions can be reconstructed only partially, based on the archaeological data which deals only with the end product of the ritual. Yet, depending on their place of occurrence it can be presumed that some of them would have involved gatherings of people at special locations and certain periods or days of the year, other times the connection between human and supernatural was intermediated by initiated persons. The examples from our paper indicate that in the Celtic society from the eastern part of the Carpathian Basin these phenomena occurred generally.

If one looks at the map of the spread of the Celtic finds from the Transylvanian Late Iron Age, it can be noted that, except the settlements from the large river valleys and their immediate side valleys, mostly stray finds are known from the periphery. The character of some of these objects is outstanding, and also from a land use point of view some of these finds were identified in exceptional places.

In our presentation, we take into account the places and finds in Transylvania that, by their nature, can be associated with cult activities.

## **The mind is a safe place to be... Landscapes in memory and perception of past societies**

BORIS KAVUR

What do a prehistoric cemetery, a Roman military camp, a medieval church and three roads have in common?

They are all projections of power into the landscape. The power to ritualize in space the transition from the societies of the living to the communities of the dead; the power to demonstrate the appropriation of the landscape; the power to illustrate the internationalization of style and religion; the power to connect worlds.

In the landscapes are hidden reflections of habits and experiences of past populations – important coded information of common belonging to past societies. They are reflections of past perceptions of the landscape – of the symbolic and physical appropriation of the space and

placement of human (and animal) movements and life cycles into it. They do not have only a physical but also a social dimension – they are the entanglement of ideological, social, cultural and geographic contexts. In addition, through interpreting the archaeological record, we can identify the past societies that were actively assuming agency in the landscape, and that were physically shaping it. Yet, we also have to keep in mind the secondary agency, the societies that were observing and interpreting the visible performances.

All of these can be observed at the archaeological site of Zavrč in north-eastern Slovenia. Located on the terrace above the marshes surrounding channels of river Drava it forms the eastern foothills of Haloze hills. It is positioned on the trespass of Pannonia entering the corridor of alpine valleys, and it was for millennia *a lieu de memoir* for different societies, investing in it different meanings.

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