

Arbeitsgemeinschaft zur Archäologie der Sachsen  
und ihrer Nachbarvölker in Nordwesteuropa

– IVoE

**73<sup>rd</sup> International  
Sachsensymposion**  
„Terra fertilis, terra deserta –  
Exploitation of marginal zones”  
Cracow, 17<sup>th</sup>–21<sup>st</sup> September 2022



### **ORGANISING COMMITTEE**

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### **FINANCIAL SUPPORT**

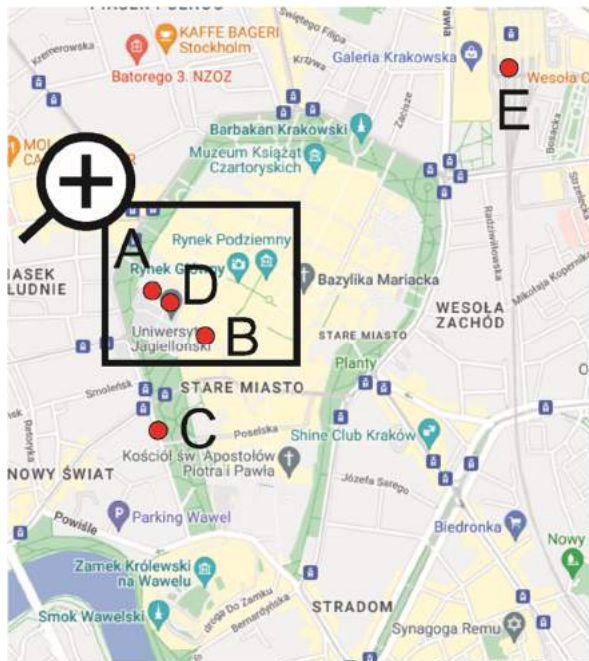
Excellence Initiative of the Jagiellonian University

### **CONFERENCE LOGO**

Bronze belt strap-end, decorated in the Sösdala-Untersiebenbrunn style, from Ciemna Cave,

Ojców (first half of the 5<sup>th</sup> century AD)

73<sup>rd</sup> International Sachsensymposium, Cracow, 17<sup>th</sup>-21<sup>st</sup> September 2022



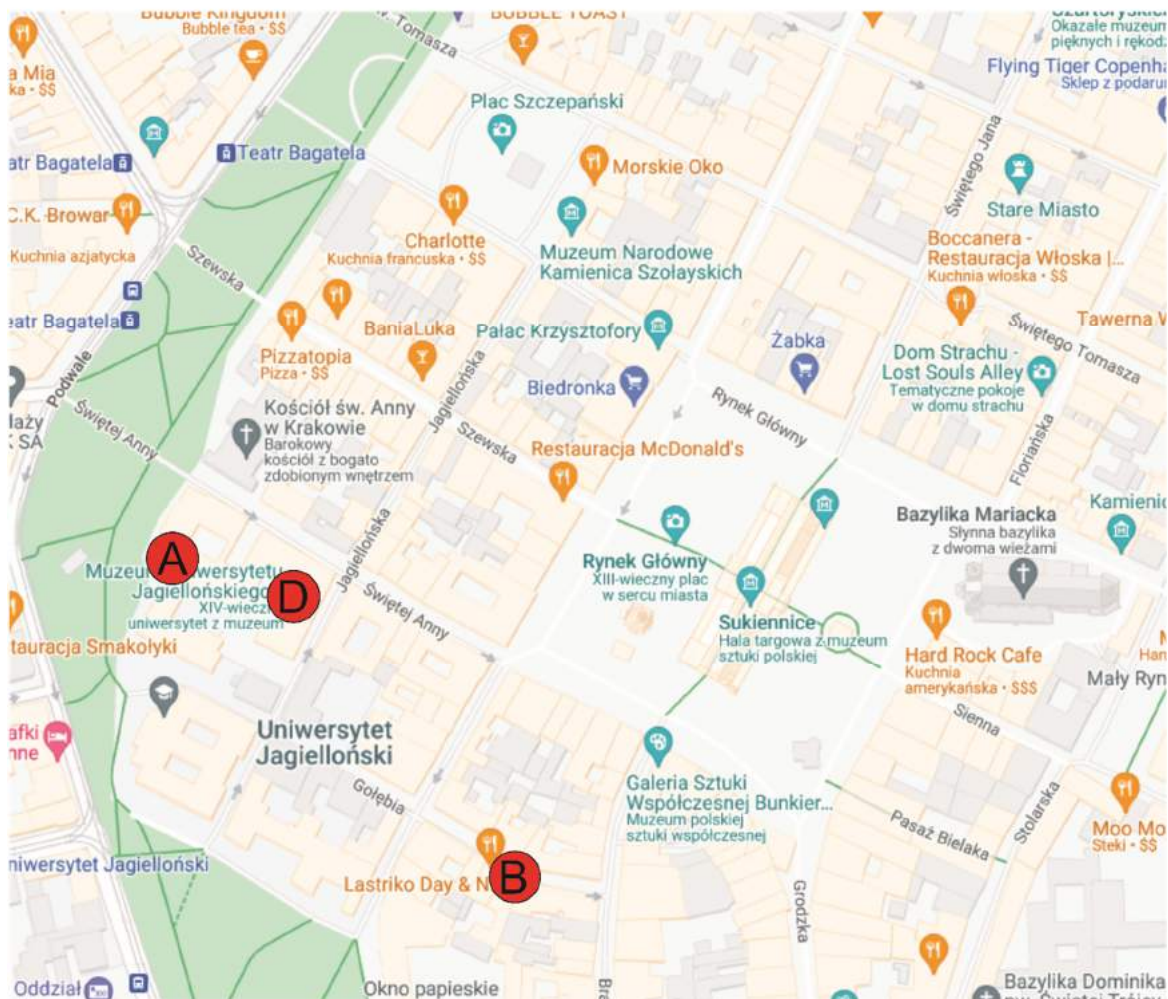
A - Collegium Witkowskiego - Congress venue (13 Gołębia Street)

B - Kawaleria restaurant - Conference Dinner (4 Gołębia Street)

C - Excursion on September 19th - Meeting point: 14 Straszewskiego Street

D - Guided city tour - Meeting point: Courtyard of the Collegium Maius, 15 Jagiellońska Street

E - Central Railway Station (train to the airport)



## PROGRAMME

All lectures will take place in the auditorium of the Collegium Witkowski, 13 Gołębia Street. Here you will also find the conference office.

### **Saturday 17th September 2022**

14:00 – 18:00 Arrival and registration at the conference office

15:00 – 17:00 Guided city tour

(Meeting point: Courtyard of the Collegium Maius, 15 Jagiellońska Street)

16:00 – 18:00 Workshop: Application of forensic anthropological methods in archaeology

Anita Szczepanek (Cracow)

(Room 17 of the Collegium Witkowski, 13 Gołębia Street)

18:30 Welcoming speech by Judyta Rodzińska-Nowak (Vice-dean of the Faculty of History of the Jagiellonian University in Cracow)

Welcoming speech by Paweł Valde-Nowak (Director of the Institute of Archaeology of the Jagiellonian University in Cracow)

Welcoming speech by Claus von Carnap-Bornheim (Chair of the Sachsensymposion)

19:00 Keynote lecture: Paths to Nowhere. The Marginal Zones and the Power of Narrative

Dariusz Czaja (Jagiellonian University, Cracow)

20:00 Reception in the Collegium Witkowski

## **Sunday 18th September 2022**

8:30 Opening of the conference office

8:45 Welcome and introduction

In Memoriam

### **SESSION I**

Chair: Torun Zachrisson

9:00 The late prehistoric landscape of the Cracow Upland.

Michał Wojenka (Cracow)

9:30 Exploiting the Generous Wild. The use of high mountain areas in Norway in the Early Medieval Period.

Asbjørn Engevik (Bergen)

10:00 What is marginal to one, maybe is central to the other – Vendel period hunting ground graves in the central Scandinavian periphery.

Martin Gollwitzer (Malmö)

10:30 – 11:00 COFFEE BREAK

### **SESSION II**

Chair: Håkon Reiersen

11:00 Different landscapes of the area between the Nemunas and Daugava rivers - different settlement patterns and demographic changes in the 5-6th centuries.

Audronė Bliujienė (Klaipėda)

11:30 Living and acting on water and surrounding wetlands? Traces of prehistoric activity in the Nemunas/Memel/Niemen Delta.

Rasa Banytė-Rowell (Vilnius)

12:00 Mind the Gap: Patterns of exploitation, settlement, and abandonment in the southern Weald of Kent and Sussex, from prehistory to the Early Middle Ages.

Andrew Richardson (Cantenbury)

12:30 – 14:30 LUNCH

### SESSION III

Chair: Jan Schuster

14:30 Outland exploitation and resource colonisation in early Medieval Scandinavia.

Andreas Henniuss (Uppsala)

15:00 Farming, peat cutting and other activities on peat and clay-on-peat soils in Frisia during the Pre-Roman Iron Age and Roman Iron Age

Marco Bakker (Groningen), Mans Schepers (Groningen)

15:30 Iron extraction in 2nd–6th-century Scandinavia: An industry for commodity production organised by lords.

Dagfinn Skre (Oslo)

16:00 Die Mikroregion um Zaborów im Kontext der kaiserzeitlichen Eisenverhüttung: eine Siedlungskammer westlich von Warschau und ihre natürlichen Ressourcen an der Grenze zweier Landschaften.

Adam Cieśliński (Warsaw), Marcin Woźniak (Pruszków)

16:30 – 17:00 COFFEE BREAK

17:00 – 17:30 Sacrificial place at the fringes of culture? Lake Lubanowo (NW Poland) in the Roman Period.

Bartosz Kontny (Warsaw), Dawid Rembecki (Warsaw)

18:00 Meeting of the Coordinating Committee (Room 2, Collegium Witkowski, 13 Gołębia Street)

## **Monday 19th September 2022**

8:30 – ca. 19:00 Excursion (Meeting point: 14 Straszewskiego Street).

## **Tuesday 20th September 2022**

8:30 Opening of the conference office

### **SESSION IV**

Chair: John Hines

9:00 Sorte Muld, Bornholm. Recent excavations and prestige object.

Ulla Lund Hansen (Copenhagen), Anne Nørgård Jørgensen (Copenhagen), Margrethe Watt (Rønne)

9:30 Home of the Gods – How Gudme developed and manifested itself in the landscape physically, socioeconomically and sacrally.

Mads Densgø Jessen (Copenhagen), Laurine Albris (Copenhagen)

10:00 Havsmarken – a port of trade in the borderland between Carolingian Europe and Viking Scandinavia.

Sigurd Arve Baslund Bohr (Rudkøbing), Mogens Bo Henriksen (Odense), Jesper Hansen (Odense)

10:30 – 11:00 COFFEE BREAK

## SESSION V

Chair: Adam Cieśliński

11:00 At the edge of the island: Iron Age settlement remains on Amrum (North Frisia, Germany).

Ruth Blankenfeldt, Stephanie Klooß, Christoph Unglaub (Schleswig)

11:30 Amber objects of the Iron Age as indicators of value and exchange in Scandinavia.

Karl Johann Offermann (Schleswig)

12:00 “Five Foolish Virgins”. A persistent landmark at the gateway to Avaldsnes.

Håkon Reiersen (Stavanger)

12:30 – 14:30 LUNCH

## SESSION VI

Chair: Audronė Bliujienė

14:30 The Leuna-Hassleben-Zakrzów and Dancheny-Brangstrup Horizons and new archaeological and numismatic materials from Ukraine.

Kyrylo Myzgin (Warsaw/Schleswig)

15:00 The First Pandemic of the mid-6th century in Europe: new archaeological data on diffusion and impact.

John Hines (Cardiff)

15:30 Galindian merchants or distant relatives? Wide-ranging contacts of inhabitants of the Mrągowo Lake District (Warmia-Masurian Voivodeship) in the Late Roman Period and the Migration Period based on finds from the latest archaeological research (in Bronikowo and Łabędziewo).

Aleksandra Barejko (Warsaw)



16:00 – 16:30 COFFEE BREAK

16:30 – 17:30 “Große Wildnis” – a borderland between the Germans and the west Balts in the Roman Period and Migration Period.

Wojciech Nowakowski (Warsaw)

19:00 Conference Dinner in Kawaleria restaurant (4 Gołębia Street)

### **Wednesday 21st September 2022**

8:30 Opening of the conference office

#### **SESSION VII**

Chair: Aleksander Bursche

9:00 The Vindelev hoard and the world's largest bracteate.

Mads Ravn (Vejle)

9:30 Jewellery and women in Vendel-period Old Uppsala, Sweden, c. AD 550-750/800.

Ingunn Marit Røstad (Oslo), Torun Zachrisson (Stockholm)

10:00 Husby in Glanshammar: cloisonné production, Viking silver deposition and memorialisation.

Martin Rundkvist (Łódź), Florent Audy (Stockholm)

10:30 – 11:00 COFFEE BREAK

## SESSION VIII

Chair: Claus von Carnap-Bornheim

11:00 The Gotlandic picture stones as an expression of cultural contacts with remote areas of Western Europe – Two PhD dissertations presented in the frame of the *Ancient Images 2.0*-project.

Sigmund Oehrl (Stavanger/Stockholm), Hannah Strehlau (Schleswig/Kiel), Lukas Albrecht (Munich), Alexandra Pesch (Schleswig)

11:30 The military chief from? – A grave assemblage of unknown provenance and the question of late antique „entangled identities“.

Dieter Quast (Mainz), Andreas Rau (Schleswig)

12:00 The chambergrave of Poprad-Matejovce in the light of new research on the North-Carpathian Group.

Nina Lau (Schleswig), Karol Pieta (Nitra), Judyta Rodzińska-Nowak (Cracow)

12:30 Sherds as symbols – a review of the Danish finds of *terra sigillata*.

Mogens Bo Henriksen (Odense)

13:00 On the edge of facts and faith. The case of the guelder rose from Jartypory, eastern Poland.

Jacek Andrzejowski, Anna Bitner-Wróblewska, Wojciech Wróblewski (Warsaw)

13:30 Ein bemerkenswertes völkerwanderungszeitliches Grab von Dąbie bei Bytów in Pommern.

Jan Schuster (Łódź), Paweł Szczepanik (Toruń)

13:45 Summary and invitation to the 74th International Sachsensymposion in Stavanger.

## POSTERS

Feeding Anglo-Saxon England: The bioarchaeology of an 'agricultural revolution'.

Helena Hamerow (PI), Amy Bogaard, Michael Charles, Emily Forster, Matilda Holmes, Mark McKerracher, Christopher Ramsey, Elizabeth Stroud, Richard Thomas (Oxford & Leicester)

Beads, necklaces and female networks.

Katie Haworth (Cambridge)

Finding the Fish Event Horizon – The ArchaeoFINS project.

Sam Leggett (Edinburgh)

Center's life in the margin. Hilltop settlement in Pasym (NE Poland) at the dawn of the Early Middle Ages.

Sławomir Wadył (Warsaw), Piotr Kittel (Łódź), Mateusz Krupski (Wrocław)

The Gudme-Lundeborg complex 2.0.

Katrine Balsgaard Juul (Svendborg)

The Nidajno sacrificial site in the Lake District of Mrągowo and its far-reaching connections.

Aleksandra Rzeszotarska-Nowakiewicz (Warsaw)

On Land and under the (Wadden) Sea: Settlement and land-use patterns from the Roman Iron Age through the Late Middle Ages in North Frisia (Germany) investigated through Geophysics and Remote Sensing.

Bente Sven Majchczack (Kiel), Ruth Blankenfeldt (Schleswig), Dennis Wilken (Schleswig), Hanna Hadler (Schleswig), Stefanie Klooß (Schleswig)

On the fringes of the Dollkeim-Kovrovo culture – the cemetery at Perdollen/Petino.

Agata Chilińska-Früboes (Cracow)

Yatvings from the Szczeberka river region: 'wealth and power of the noble Sudovians' and the milestone of early medieval archaeology in Poland.

Iwona Lewoc (Warsaw), Sławomir Miłek, Tomasz Nowakiewicz (Warsaw), Dawid Rembecki (Warsaw)

Pomeranian type shield-headed bracelets in Central European Barbaricum: Preliminary Results

Ewa Rydzewska (Cracow)

## ABSTRACTS

### **KEYNOTE LECTURE: Paths to Nowhere. The Marginal Zones and the Power of Narrative.**

Dariusz Czaja (Cracow)

### **The late prehistoric landscape of the Cracow Upland.**

Michał Wojenka (Cracow)

The natural environment of the Cracow Upland, rich in karstic forms such as caves or rocks, is commonly regarded in Poland as inseparable from archaeology. The area owes this assessment mostly to significant paleolithic finds, which have been revealed in the caves around since the 1870s. After decades of archaeological prospecting, there is no doubt that if for the paleolithic hunters the area played a role of a primary settlement area, for the agricultural communities of later stages of prehistory it was rather a peripheral zone of activity. This was mainly due to its geographical and geomorphological factors that form what could be described as a sort of ecological barrier, with poor hydrological regime, a slightly harsher climate and soil conditions less favorable for farming than outside the area. This resulted in lack or scarcity of settlement of the Cracow Upland during most of the late prehistory (here understood as a time span from the Neolithic to the Migration Period). However, there were some moments in the past when the area range increased despite natural deficiencies. During the Neolithic and early Bronze Age, the Cracow Upland attracted interest mostly as a raw material base, providing a high-quality flint for toolmaking (the so-called Cracow Jurassic flint). The raw material in question served both for the communities dwelling in neighboring areas and – as a means of indirect exchange – for the inhabitants of such distant regions as the Carpathian basin. However, the evidence for permanent settlement during the aforementioned periods is poor. The settlement situation changed as late as in the Late Bronze Age and the early Iron Age, when the area of the Cracow Upland was colonized by the societies representing the so-called Lusatian culture, possibly due to the demographic boom in the adjacent areas. There are strong indications that in the pre-Roman and early Roman Ages the Cracow Upland became an area of minor importance for settlement again. This probably changed during the younger or late Roman Age and during the early phase of Migration Period, when archaeological records go hand in hand with the internal expansion of Przeworsk culture demonstrated by a growing settlement density in southern Poland starting

from phase C1. Of particular value are the numerous cave finds from this period and the evidence of cave burial practices documented in some of the caves in this area.

The paper provides a brief overview on how the natural environment of the Cracow Upland affected the late prehistoric landscape and attempts to answer the question of which factors were crucial for the animation of settlement processes in this area, a region that would obviously not be the first choice for farming newcomers.

The idea of the paper is to introduce the audience to the archaeology of the Cracow Upland in perspective of the excursion planned for September 19.

### **Exploiting The Generous Wild. The use of high mountain areas in Norway in the Early Medieval Period.**

Asbjørn Engevik (Bergen)

The high mountains of Norway (800-1500 MASL) represent the outer edge of where it is possible to live. In this area weather conditions may change within seconds, and often ensures inhospitable and even dangerous living conditions. Evidence of prehistoric settlement is sparse and ordinary agriculture and permanent settlement are not possible. The high mountain area has therefore traditionally been defined as a *marginal zone*.

However, using the term “marginal zone” also implies that there has also been a “central zone”. This kind of archaeological dichotomy is complex and must always be carefully contextualized. Our interpretation of marginality today is unlikely to have been shared by the inhabitants of prehistoric communities. Most likely there has been different kinds of marginal zones (e.g., economic, political, and cultural), all having different values in different times and places. Based on this, several interesting questions arises. What is actual a *marginal zone*? Is there an inherent opposition between a marginal zone and a central zone? And how do you distinguish between a marginal zone and a non-marginal zone?

Recent years climate change and the following melting of snow patches and mountain ice in the high mountains in Norway, has resulted in a significant increase of artifacts found dating to the Early Medieval Period. These finds includes both organic and inorganic elements, indicating that this area have been economically important. What does this mean? We may all agree upon the fact that the high mountains represent inhospitable conditions. But was the area of little interest

for the inhabitants? Did they perceive the high mountain area as *marginal zone*? Or were the high mountains representing a generous wild with favourable economic conditions?

**What is marginal to one, maybe is central to the other – Vendel period hunting ground graves in the central Scandinavian periphery.**

Martin Gollwitzer (Malmö)

In the inland areas of the central Scandinavian peninsula areas that can because of the favourable natural conditions considered as central for cultures with an agrarian economy and marginal areas are often situated quite near to each other. The inland areas of central Scandinavia are characterised by mountains and forested taiga. Arable lands are often restricted to areas with slightly milder natural conditions, like the valleys. Under the iron age and especially under the younger Iron age a settlement expansion starts to areas of the Scandinavian peninsula that under earlier periods only sporadically were exploited. But the marginal areas of the high mountains and the vast forested ranges were rich in certain natural resources like bog ore and animals that could be hunted as food or supplier for food, fur, bone and antler products. Because of these rich resources even the marginal zones were visited by people settling in the more favourable arable lands. In the beginning of the younger iron age Vendel period there appears a new group of burials in the mountainous and forested areas of central Scandinavian which are characterised by a location long away from the central areas up in the mountains or deep in the forest taiga. The burials in those marginal zones are often characterised by a rich inventory of metal artefacts and even high status objects are quite frequent. The similarities in the burial customs of those graves are so obvious that the author defined them to form an own group of burials called *hunting ground graves*. The question is discussed if those graves represent people that temporary came from the central areas in connection with the exploitation of the natural resources or if they are the graves of a population settling in the marginal zones. The author develops a model that favours the second interpretation.

**Different landscapes of the area between the Nemunas and Daugava rivers – different settlement patterns and demographic changes in the 5-6th centuries.**

Audronė Bliujienė (Klaipėda)

The main idea of this presentation is to provide an overview of five small territories (microregions) that are distinguished by their settlement structure, demography, contacts, including exchanges, accessible livelihoods and material features. The small areas of Eastern Lithuania (Žeimena river basin), the confluence of the Nemunas and Neris rivers in Central Lithuania, the lower Nemunas river basin in Western Lithuania and the north-western Lithuania (the Mūša - Lielupe river interfluvium) are distinguished by the following features, listed in the 5th- 6th centuries. Although the cultural affiliation of these territories was reflected differently in the Roman period, so was their fate during the transformation into the times of the Migration period. However, in the 5th and 6th centuries, the people living in these regions were able to take advantage of their good geographical location and the cultural and economic links (exchanges) that led to their rise.

**Living and acting on water and surrounding wetlands? Traces of prehistoric activity in the Nemunas/Memel/Niemen Delta.**

Rasa Banytė-Rowell (Vilnius)

The Nemunas Delta is the lowest area of the Baltic Sea Coastland irrigating Western Lithuania and partly the Kaliningradskaja Oblast' of the Russian Federation. Years ago scholars considered that this region full of marshy places and comprising a maze of rivers and rivulets was not suitable for dwelling in prehistory. This stereotype was broken by the work of Paul Lemke on archaeological finds from Kr. Niederung in Eastern Prussia (1928). Nevertheless, a narrative claiming that the main flow of the River Nemunas broke through moraine ridge of Vilkyskiai (former Wilkischken) only around 1000 years ago still prevails in archaeological discussions. The latter point of view (namely, that the routes of Nemunas Delta similar to what they are nowadays did not exist in prehistory until approximately the Viking Age) was supported by a thesis that prehistoric finds are absent in this region. The aim of this paper is to look through the archaeological database of the region and argue why rough living or working conditions in the marshy delta might have been an advantage in prehistory. Damp surroundings were not a luxury in regards of the dwelling conditions but gave close access to the “fruits of water” such as a



plenteous supply of fish and water birds. Hiding in marsh surroundings provided considerable safety and a chance to control water routes leading into the mainland.

**Mind the Gap: Patterns of exploitation, settlement, and abandonment in the southern Weald of Kent and Sussex, from prehistory to the Early Middle Ages.**

Andrew Richardson (Cantenbury)

This paper presents research on an area of the southern Weald, straddling the border between the former Anglo-Saxon kingdoms of Kent and Sussex. Since prehistory, the Weald has formed a marginal zone between the more settled lands around it. This research forms part of The Lossenham Project, a community project which integrates archaeological, historical and landscape perspectives to investigate the river system of the Rother (formerly the *Limen*) and its tributaries, and the surrounding hinterland. This area, with heavy clay soils, as well as large areas of former peat bog and river levels susceptible to marine inundation, remains a challenge to farm, manage and exploit to the present day.

In contrast to Romney Marsh, immediately to the east and into which the Rother feeds sediment, the Rother Valley has seen little systematic study. The Lossenham Project aims to change that. Comprehensive survey of the archaeological record is combining with new fieldwork to provide fresh insights into human activity and settlement (or the lack of it) over millennia. Low level activity during prehistory, compared to neighbouring landscape zones, is followed by evidence of more intense activity and settlement during the first to third centuries AD, mainly due to large-scale iron production in the area. This appears to be followed, from the fourth to seventh centuries, by very a low-level activity, and possibly complete abandonment, before evidence of a renewed human presence from the late seventh century onwards, leading towards permanent settlement of the area during subsequent centuries.

Consideration will be given to whether this apparent gap in activity is real, and if so, what factors might lie behind it. Implications of our understanding for the Weald as a whole, and comparisons with similar contemporary landscapes (such as low-lying coastal regions of the Netherlands) will also be explored and discussed.

### **Outland exploitation and resource colonisation in early Medieval Scandinavia.**

Andreas Henniuss (Uppsala)

Only about 10–15% of Sweden consists of arable land. The rest comprises extensive forests, lakes, bogs, archipelagos and mountains, which are mainly situated in the northern part of the country. Such types of land, sometimes referred to as *Utmark* – *Outlands*– are less suitable for cultivation but hold a number of other valuable resources. Despite this, it is the agrarian narrative that is considered to be of primary significance to societal developments during the Iron Age. The traditional view has been that when cultivation slowly spread north during the Viking Age and Medieval period, forests products became important commodities on far reaching trade networks.

This paper is based on the author's PhD thesis *Outlanders? Resource colonisation, raw material exploitation and networks in Middle Iron Age Sweden* which challenged such agrarian explanations. Through empirically based studies of a rich and varied source material, it shows that the outland resources played an important role in societal development as early as the Migration period. By studying the evidence for hunting, including terrestrial and marine mammals, large-scale tar production, changes in grazing systems and the emergence of seasonal production sites in both forests and the archipelago it is possible to argue that the fundamental societal changes in the arable landscape during the 4<sup>th</sup>-7<sup>th</sup> centuries also implied new ways of regulating and utilizing non-agrarian outland resources.

The study suggests that another explanation for the colonisation process can be put forward. People did not primarily venture into the boreal inlands looking for new land to cultivate. Rather, they went there to exploit different natural resources as part of a process that could be explained as resource colonisation.

### **Farming, peat cutting and other activities on peat and clay-on-peat soils in Frisia during the Pre-Roman Iron Age and Roman Iron Age**

Marco Bakker (Groningen), Mans Schepers (Groningen)

The peat area of the northern Netherlands has long been seen as an inhospitable place that was hardly exploited until the Middle Ages. Although traces of habitation dating back to the pre-Roman Iron Age and the Roman Iron Age were known from the fringes of the peat area that

bordered the salt marsh area, this habitation was considered to have been sparse and of seasonal nature. However, new research has proven that these lands were actually reclaimed on a large scale and that they were much denser settled than previously thought. In contrast to previously held beliefs, it is argued here that the initial motive behind these reclamations was agricultural self-sustainability. This is based on a number of recent settlements excavations were not only the settlement, but also off-site phenomena were examined. Extensive botanical and zoological research, as well as isotope analysis, allowed for a sound understanding of both the subsistence economy and the natural conditions in the area. It also became clear, however, that the reclamations were not a durable activity. Settlements were often only occupied for three to four generations. The most likely cause for their abandonment was land subsidence and 'drowning' of the land caused by the drainage of the peat. Following abandonment, settlements were occasionally re-used for semi-industrial activities, including pottery production and fuel extraction. The early peat reclamations were abandoned in the late Roman Iron Age like most of the adjacent salt marsh area, to be reclaimed again in the early Middle Ages.

### **Iron extraction in 2nd–6th-century Scandinavia: An industry for commodity production organised by lords.**

Dagfinn Skre (Oslo)

Iron extraction directed at trade happened on a large scale in Scandinavian from the 2nd century onwards. Production appears to have happened in the woodlands of the Central and southern Scandinavian Peninsula and in Jutland. Output was likely sufficient to satisfy potential demands in the whole of Scandinavia, which from the distribution of iron billets appears to have been the main market.

This commodity production and long-distance trade was probably initiated and organised by lords settled in the fertile districts in the vicinity of extraction sites, and their warriors appear to have been posted by the sites to oversee and protect production and transport. Trade probably happened in established networks of trade between lords across Scandinavia. Contrary to what has been assumed by some scholars, iron was likely not among the commodities that were traded with merchants from the Roman Empire in exchange for gold, glass beads, silver items, bronze and glass vessels, and other items that found their way to northernmost Barbaricum.

**Die Mikroregion um Zaborów im Kontext der kaiserzeitlichen Eisenverhüttung: eine Siedlungskammer westlich von Warschau und ihre natürlichen Ressourcen an der Grenze zweier Landschaften.**

Adam Cieśliński (Warsaw), Marcin Woźniak (Pruszków)

Die Mikroregion um Zaborów bildet eine Siedlungskammer der Przeworsk-Kultur, einige Kilometer westlich von Warschau. Sie besteht aus einem Gräberfeld und mindestens drei Siedlungen mit Spuren einer intensiven Eisenproduktion, die seit dem Frühjahr 2021 im Rahmen eines neuen wissenschaftlichen Projekts der Universität Warschau und des Museums für die altertümliche Eisenverhüttung Masowiens in Pruszków untersucht werden. Das Gräberfeld ist am besten erforscht, wo mehrere zerstörte Brandbestattungen sowie zahlreiche Einzelfunde registriert wurden. Sie datieren hauptsächlich in die ältere Kaiserzeit, aber auch in die jüngere vorrömische Eisenzeit und die jüngere Kaiserzeit. Eine der herausragenden Entdeckungen aus der Nekropole ist ein römischer Glasbecher mit gemalten Gladiatorendarstellungen, der in einem zerstörten Urnengrab gefunden wurde. Andere Fundstellen der Mikroregion wurden durch Feldbegehungen und geophysikalische Prospektionen (Geomagnetik und Bodenradar-GPR) ermittelt. Im August 2022 sind Ausgrabungen an der größten Siedlung der Mikroregion geplant, über deren Ergebnisse wir im Rahmen des Vortrags hoffentlich ausführlich berichten können.

Die Mikroregion Zaborów liegt an der Grenze zweier Landschaften (sogenannter Mesoregionen) innerhalb der Makroregion Zentralmasowisches Tiefland: der Łowicko-Błońska-Ebene und dem Warschauer Becken. Bei der ersten dieser Landschaften handelt es sich um eine Denudationsebene, ein flaches Gebiet, das durch hochwertige Böden, einschließlich Schwarzerden, gekennzeichnet ist. Die Ergebnisse zahlreicher, leider unveröffentlichter geologischer Bohrungen weisen darauf hin, dass es sich um ein Gebiet handelt, das reich an Raseneisenerz ist, einem wichtigen Rohstoff für die Eisenverhüttung. Diese Region, von Archäologen als Masowisches Metallurgiezentrum bezeichnet, ist archäologisch relativ gut erforscht: Etwa 240 Fundstellen der Przeworsk-Kultur wurden dort erfasst, die meisten davon mit Spuren intensiver Eisenproduktion. Ihr Ausmaß wird auf 120.000-150.000 Rennöfen geschätzt.

Das Warschauer Becken ist ein breites Urstromtal der Weichsel, das aus einem längs verlaufenden Dünen- und Sumpfgürtel besteht, wobei letztere die Überreste der früheren Urweichsel-Ströme sind. Bis zum 18. Jahrhundert war dieses teils sandige, teils sumpfige Gebiet von einem ausgedehnten Wald bedeckt, der später großflächig abgeholzt wurde. Nach dem 2. Weltkrieg wurde dieses landwirtschaftlich wenig attraktive Gebiet weitgehend aufgeforstet und in den Kampinos-Nationalpark umgewandelt. Dieses Gebiet ist archäologisch deutlich weniger bekannt, obwohl in einigen Teilen vor der Aufforstung auch Feldbegehungen durchgeführt wurden.

Die Mikroregion Zaborów befindet sich genau an der Grenze zwischen beiden Landschaften. Der nördliche Streifen der Łowicko-Błońska-Ebene fällt zum Warschauer Becken hin deutlich ab; in Zaborów beträgt der relative Höhenunterschied 10 m auf einer Länge von etwa 400 m. Die Nekropole und zwei Verhüttungssiedlungen liegen am äußersten Rand der Łowicko-Błońska-Ebene. Die oberflächliche Verteilung der Schlacke deutet darauf hin, dass die metallurgische Tätigkeit eine größere Ausdehnung hatte und bis an den südlichen Rand des Warschauer Beckens reichte.

Das Projekt in Zaborów zielt unter anderem darauf ab, die Auswirkung der Umweltfaktoren auf die Entwicklung der antiken Metallurgie besser zu verstehen. Unter anderem sind palynologische Untersuchungen geplant, die Hinweise auf den Zeitpunkt und die Intensität der Holzgewinnung für die Holzkohleproduktion geben können. Zusammen mit dem Raseneisenerz und dem Ton für den Ofenbau war Holz ein wesentlicher Rohstoff für die Eisenverhüttung. Es scheint, dass die Lage des örtlichen Produktionszentrums an der Grenze zwischen zwei ökologischen Zonen mit unterschiedlichem wirtschaftlichem Potenzial nicht zufällig war. Die Łowicko-Błońska-Ebene war ein Gebiet, in dem Mooreisenerz und Ton gefunden werden konnten und das aufgrund der hervorragenden Böden auch ein großes landwirtschaftliches Potenzial hatte. Andererseits könnte das Warschauer Becken, bzw. sein südlicher Rand, eine wichtige Region für die Holzgewinnung gewesen sein, wie es auch in der Neuzeit der Fall war. Es bleibt zu hoffen, dass die künftigen interdisziplinären Forschungen Antworten auf diese Fragen liefern werden.

### **“Große Wildnis” – a borderland between the Germans and the west Balts in the Roman Period and Migration Period.**

Wojciech Nowakowski (Warsaw)

Late medieval descriptions of the Teutonic state in Prussia mention the term “große Wildnis”, used to denote an uninhabited strip of land along the borders with Mazovia. While the existence of such a void at that time was connected with a planned policy aimed at maintaining a border “buffer zone”, it owed its formation to natural geological and geomorphological conditions—it was an area of post-glacial marshes separated by sand dunes, unattractive for settlement and difficult to traverse. South of this line, there was the flat plain of Mazovia, while to the north stretched the hilly Masurian Lakeland with its many elevations and valleys, often filled with lake waters. This borderland was not, however, an impenetrable barrier—it was intersected by travel and transport routes; there had also been attempts at permanent settlement in the area. In the Early Iron Age, the range of the so-called West Balt Barrow culture, whose main centres were

located in Samland, Warmia and western Masuria, reached the northern parts of Mazovia. The situation changed in the Late Pre-Roman Period, when the Przeworsk culture population took over Mazovia, prompting the West Balts to retreat back north, into Masuria. The expansion of the Przeworsk culture temporarily reached as far as the areas by the Upper Łyna (Alle) River. The situation stabilised at the beginning of the Early Roman Period, when the above-described geographical boundary once again became a clear cultural as well as ethnic border, separating the Germans in the south from the West Balts in the north. Despite intensive contacts between the areas, the southern part of Masuria remained unsettled, forming a “buffer zone”. The sense of threat, however, subsided over time, as already in the late phase of the Early Roman Period, West Balt settlement started to move back south. This trend continued in the Late Roman Period, with the West Balts once again reaching the northern fringes of Mazovia in the following centuries—in the Late Migration Period.

#### **Sorte Muld, Bornholm. Recent excavations and prestige object.**

Ulla Lund Hansen (Copenhagen), Anne Nørgård Jørgensen (Copenhagen), Margrethe Watt (Rønne)

The cult assembly site Sorte Muld on the Baltic island of Bornholm continues to deliver prestige finds, especially from the period 500-750 AD. The 2021 excavation campaign at the chieftain residence and cult site included prestige objects belonging to a sword scabbard to what was probably a magnificent sword from the 6th century AD. This presentation is a preliminary status for the finds in relation to other cloisonné objects at Sorte Muld and Bornholm in general. Bornholm has well-preserved grave finds from most of prehistory, especially significant are the graves from the time 500-900 AD - graves types which are rarely preserved in the rest of Denmark. Among the finds are a number of cloisonné objects. Cloisonné also occurs among the depositions at Smørringe on south Bornholm. This material is included in the analysis of cloisonné on the island.

Sorte Muld has been recognized since the 16th century, and contains finds from 200 BC- 800 AD. Based on the latest excavations, Sorte Muld now includes documentation for multi-phase temple building, weapons deposits and continued growth of gold foil figurines (guldgubber). Sorte Muld seems to be the cultic, administrative and economic centre of the island in the period 500-750/800 AD. The guldgubber material (more than 3200), exclusive treasure finds, imported glass

and weapons equipment shows that Sorte Muld can now be paralleled to contemporary elite residences and gathering places in Scandinavia and the northern Continent.

There have been several major excavation campaigns. The largest in the mid-1980s and again in 2019 and 2021. A larger excavation field has so far been opened in the cult area and smaller test fields surrounding the cult building. The most important observations have been made in Field 4 in the cult building itself by locating the in situ-position of the gold foil figurines. The cloisonné objects were discovered very close east of the cult building in Field 3. The weapons have been located northwest of the cult building in Field 8. At present, approx. 50 spears and lances on Sorte Muld, but this is the first time they are found in situ. Field 8 is also characterized by a large zoological material of cattle, indicating large meal feasts probably associated with the cult assembly on the site. Extensive post-processing of material and data from the 2021 excavation season is still ongoing. The excavations continue in 2022.

Seen in relation to the theme of the symposium, Sorte Muld may in some ways be considered a peripheral border zone due to the island's special position in the Baltic Sea. However, many finds indicate far reaching contacts. Among them is the imagery on some of the gold foil figures, found in both Sorte Muld and several other localities in Southern and Eastern Sweden. A group of both male and female gold foil figures appear to be dressed in prestigious fur, indicating a possible source of wealth for Sorte Muld, namely fur trade along the coast of the Baltic Sea. The settlement complex had specialised craftsmen and traders and was a central port where seafarers had the opportunity to trade and obtain supplies for voyages across the Baltic Sea.

### **Home of the Gods – How Gudme developed and manifested itself in the landscape physically, socioeconomically and sacrally.**

Mads Dengsø Jessen (Copenhagen), Laurine Albris (Copenhagen)

The Danish place name Gudme means 'the home of the Gods', but why did this place get this name? In order to elucidate this question, we combine the Gudme (Funen, Denmark) area's place names with the area's landscape development (based on palynological data) and settlement history (based on archaeological data) during the first millennium AD. All archaeological find locations and relevant place names are collated in a data base and a recent pollen analysis from Lake Gudme shows the history of the landscape development. In the paper we argue that in order to obtain a deeper understanding of the sacral landscape, a settlement-historical perspective must be established. In combining evidence of land-use, settlement history and place names, and with a special focus on the possible conflict between centre and hinterland, the paper discusses

the background for the coining of the name Gudme. Together, the evidence provides important insights into the long-term development of Gudme and its transformation from a marginal area to central place and, eventually, decline.

**Havsmarken – a port of trade in the borderland between Carolingian Europe and Viking Scandinavia.**

Sigurd Arve Baslund Bohr (Rudkøbing), Mogens Bo Henriksen (Odense), Jesper Hansen (Odense).

The small island of Ærø makes up one of the southernmost points in the archipelago to the south of Funen, Denmark. Since 2008 detectorists have found more than 4000 metal objects at Havsmarken near the southern tip of the island, mainly dating to the early Viking Period (9-10<sup>th</sup> century AD). The finds indicate intensive metal crafts and trade activities. The number of Carolingian and Cufic coins can be counted in hundreds, and including several insular and Carolingian objects, the international character of the site is emphasized.

Geomagnetic surveys have been carried out in 2019, revealing massive concentration of structures. Small-scale excavations in 2020-21 have uncovered extensive cultural layers with thousands of iron nails and rivets, undoubtedly from maintenance of long ships.

Havsmarken has a peripheral location in relation to the general settlement pattern of the Viking Age. Located at a bay protected from winds by hills in three directions, the site makes up a splendid landing site / natural harbor. Facing the western part of the Baltic Sea, Havsmarken is strategically placed near the trade routes connecting the Eastern Baltic region, Norway in the north, and Hedeby/Central Europe to the southwest. We suggest that Havsmarken was a port of trade and a site of provisioning, and not least maintenance of ships.

**At the edge of the island: Iron Age settlement remains on Amrum (North Frisia, Germany).**

Ruth Blankenfeldt, Stephanie Klooß, Christoph Unglaub (Schleswig)

Island communities are often seen as special and peripheral social structures. But were ancient settlements on today's islands in fact always marginal communities as well?

The large North Frisian islands have been more densely populated since the beginning of the Roman Empire. Special preservation conditions found here often provide archaeologists good



evidence of prehistoric features. On the west side of Amrum, the wide dune belt formed only in recent times and has excellently preserved former settlement features by covering them with sand. A small excavation project has recently documented blown out stone pavements from the period around the turn of the era, and the results have been supplemented by scientific analyses.

### **Amber objects of the Iron Age as indicators of value and exchange in Scandinavia.**

Karl Johann Offermann (Schleswig)

In archaeological research, amber is a popular material for explaining trans-regional contacts at different times. In this context, the "Amber Road" is an established term in archaeology, which underlines the importance of the fossilized resin between the south-eastern Baltic Sea coast and the Mediterranean Sea, which reached its peak especially in the Roman Iron Age. However, amber finds from northern Europe have rarely been examined so far and only a few studies have focused on the artefacts away from the described distribution areas. Especially for the period from the Roman Iron Age to the beginning of the Viking Age a large survey of amber finds in the Scandinavian countries and Northern Germany has been missing so far.

For this reason, an overview of amber finds in this area and time frame, which has now been carried out, gives a first cross-regional picture of the different amber objects and forms as well as the contexts in which amber occurred. Besides a large number of grave finds, there are also finds from settlements, offering bogs or hoards, which must be evaluated differently. The wide range of documented objects also makes this clear, like a huge amount of (jewellery) beads, game utensils or gender-specific objects such as sword beads or spindle whorls.

Therefore, the large data collection allows analyses to study different concepts of value and exchange mechanisms at that time. In combination with the knowledge of the natural distribution of amber in Northern Europe, conclusions can be drawn as well on the source of the raw material of the archaeological finds. The theory of a single source from the southern/south-eastern coast of the Baltic Sea is now facing alternatives due to the results that have been achieved.

**“Five Foolish Virgins”. A persistent landmark at the gateway to Avaldsnes.**

Håkon Reiersen (Stavanger)

"For millennia, Avaldsnes in southwest Norway was a centre of power due to its strategic placement along the main sea way through the protected strait of Karmsund. In the late Roman Period, an extraordinary monument was raised at a highly visible point where the strait was at its narrowest and the tidal currents so strong that passage was often a struggle. The monument consisted of five tall stones situated in a large triangular cairn. A Roman brass vessel found at the centre of the cairn identifies it as one of the earliest monuments of this type. In the Viking Period, the monument might have gained a function as a thing site. In Grimnismal, the god Thor wades across the Karmsund strait to the thing site at Yggdrasil's roots. In the medieval period, the name "Five Foolish Virgins" were attributed to the monument, mirroring both a well-known Biblical parable and a legend linked to the national saint St. Olafr. The monument might also have been depicted on the two 16th century maps of Olaus Magnus. Surviving as a well-known seamark, in the late 18th and early 19th century, the monument was rediscovered by antiquarians. The persistent nature of the five raised stones as a highly appreciated heritage site is underlined by the more recent story of how, just after the Second World War, the path of the massive Karmsund bridge had to be redrawn in order to avoid the "Five Foolish Virgins".

**The Leuna-Hassleben-Zakrzów and Dancheny-Brangstrup Horizons and new archaeological and numismatic materials from Ukraine.**

Kyrylo Myzgin (Warsaw/Schleswig)

The analysis of the latest numismatic and archaeological sources from the Late Roman period in Eastern Europe allows us to take a new look at the place of this region in the system of interregional relations in the Barbaricum. Foremost, it can be attributed to the period of the mid-3rd century to the mid-4th c. AD. Finds of Roman aurei of the middle and second half of the 3rd c. in Ukraine, as well as revealing a significant group of burials with Roman Bronze vessels, give ground to include this region into the horizon of the Germanic elite of the second half of the 3rd c. as a separate area. There are features common to this horizon as well as unique. New finds of gold or gold-plated barbarian imitations of Roman coins, jewellery and clothing elements also enable us to take a new look at the definition and content of the Dancheny-Brangstrup horizon. In particular, new finds allow us to present more clearly the character, intensity, and directions

of contact between the population of the North Black Sea region and Southern Scandinavia at the end of the 3rd - mid-4th cc.

**The First Pandemic of the mid-6th century in Europe: new archaeological data on diffusion and impact.**

John Hines (Cardiff)

Even before 2020, when the emergence and spread of Covid-19 made the term familiar, the 'First Pandemic' was an established historical term for a wave of bubonic plague (also known as the Justinianic Plague) which is recorded as reaching Constantinople in AD 541 and apparently then diffusing rapidly across Europe to Britain and Ireland in the far north-west. The pathogenic bacterium responsible is *Yersinia pestis*, and this has now been identified and genetically sequenced from human skeletal remains of the 6th and 7th centuries from various sites in western Europe, including one in England. An especially interesting aspect was that positive identifications at Edix Hill (Cambridgeshire) and Unterthürheim (Bavaria) appeared to belong earlier than a conventional historical *terminus post quem* of AD 541 would imply. High-precision radiocarbon dating of relevant samples from Edix Hill, however, has (unexpectedly) confirmed that conventional historical chronology, although at the same time the results underline the rapidity with which the plague must have spread across Europe, and provide new opportunities for particularly detailed tracking of its impact on a single rural community in mid-6th-century England — which was also, of course, adapting to the consequences of the climatic deterioration from AD 536 onwards. This presentation will introduce the data, and report on ongoing collaborative discussions and research which aim to enhance our understanding of this internationally significant and exceptionally relevant phenomenon.

**Galindian merchants or distant relatives? Wide-ranging contacts of inhabitants of the Mrągowo Lake District (Warmia-Masurian Voivodeship) in the Late Roman Period and the Migration Period based on finds from the latest archaeological research (in Bronikowo and Łabędziewo).**  
Aleksandra Barejko (Warsaw)

The Mrągowo Lake District mesoregion, north-eastern Poland, is located in the center of Galindia, wilderness land first mentioned by ancient historian Claudius Ptolemy. Despite the unfavorable conditions for habitation - numerous postglacial lakes, marshes and peat bogs, combined with poor soil quality not suitable for sustained farming activities- peoples from the Baltic tribes

intensively settled there. Evidence of such “colonization” could be found in over 70 recorded cemeteries associated with the Bogaczewo Culture. Following a period of crisis and its disappearance in the Late Roman Period, the cemeteries were eventually taken over by communities associated with the Olsztyn Group. Most of the burial areas were excavated by Prussian archaeologists in the 19th and early 20th centuries. Unfortunately, the vast majority of the recovered artifacts and their documentation were lost or destroyed during World War II. Recently, this gap is filled by the field verification of archival archaeological sites, which are systematically reintroduced to the scientific discourse.

The presentation will include findings from two necropoleis - in Bronikowo (former *Bronikowen*) and Łabędziewo (former *Labendzewen*) known only from scarce and enigmatic literary references or archives, being again “rediscovered” in 2021. The presented artefacts - including equal-armed brooches and elements of ornaments with zoomorphic motifs - belong to a group of unique objects, rarely found in Warmia and Masuria, but exhibit connections with the areas of the Suwałki Region, western Lithuania and the Sambian Peninsula, as well as distant areas under the influence of the Przeworsk Culture.

#### **Sacrificial place at the fringes of culture? Lake Lubanowo (NW Poland) in the Roman Period.**

Bartosz Kontny (Warsaw), Dawid Rembecki (Warsaw)

Since 2014 a team of scholars and students from the University of Warsaw has been conducting underwater survey in Lake Lubanowo (former Herrn-See) in Lubanowo (former Liebenow), comm. Banie in Western Pomerania. During the underwater research weapons, potsherds, tools, and horse harness elements were found. The earliest finds date to the Bronze Age but most of them come from the Roman Period and the Middle Ages; some modern finds were also recovered. The site should be attributed to Roman-period sacrificial military deposits, known generally from northern Europe. Its peculiarity is manifested by the fact that so far it is the only site of that type which is not a marsh or bog, into which ancient lakes have evolved due to the process of eutrophication. Here it stands still in its ‘lake stage’. Roman Period finds make up the majority of finds. Most numerous were spearheads, but there are also two axes, a shield boss’ apex, horse harness elements (chain-rein links, Kehlberge), adzes, knives, and a bucket bow. Some of the weapons were ritually damaged. They have been attributed to Roman Period war-booty offerings, known generally from northern Europe and only recently identified to the south of the Baltic Sea. So far this is the only site of that type which is not a marsh or bog, into which most ancient lakes have evolved. After surveying ca 60% of the littoral zone it is possible to draw certain conclusions referring to rules according to which artefacts were distributed, an identification of their origin and their chronology.

### **The Vindelev hoard and the world's largest bracteate.**

Mads Ravn (Vejle)

In 2021 one of the largest and richest gold treasures in Danish history was found at Vindelev, just 8 km from the royal seat of Jelling. The enormous find of almost a kg of gold, consists also of four Roman medallions, and A and C bracteates. One bracteate measures 138 mm and is thus considered the largest known bracteate to date. The hoard was buried in a longhouse. The motifs on and date of the bracteates reveal elements about the Iron Age people's mysterious religious universe and society and perhaps the reason why the gold was deposited. Here the find and its context is presented and some of the implications for the find in the region is considered.

### **Jewellery and women in Vendel-period Old Uppsala, Sweden, c. AD 550-750/800.**

Ingunn Marit Røstad (Oslo), Torun Zachrisson (Stockholm)

With its monumental burial mounds and large halls attributed to mythical Norse kings, it is perhaps not surprising that it has often been focused on mighty kings, great men, and warriors in studies around Old Uppsala. The women, on the other hand, have been less highlighted. In this paper, we want to focus on women's presence at the Royal Centre in Old Uppsala and study their participation and significance for the centre's environment, functions, and development. Our gateway to the women is jewellery from the Vendel period (c. AD 550–750/800) found in Old Uppsala and the surrounding parishes. A relatively large proportion represents recent discoveries that have emerged through archaeological excavations, and metal detector surveys in Gamla Uppsala. This material provides an opportunity to gain new knowledge regarding women's presence and active roles at and around this important centre.

The jewellery has been part of the women's attire or costume. As a costume element, fastened visibly, used, and worn in various contexts, the jewellery will have been well suited to convey various aspects of the wearer's identity, such as social status and religious affiliation, as well as regional or local identity. This gives us the opportunity to examine these women near the centre of power. We will discuss the types of jewellery the women in this area used, the physical qualities and expressions of the jewellery, geographical distribution patterns, as well as the environment and contexts in which the jewellery appears. This will enable us to discuss which identities were conveyed and negotiated.

**Husby in Glanshammar: cloisonné production, Viking silver deposition and memorialisation.**

Martin Rundkvist (Łódź), Florent Audy (Stockholm)

This presentation returns to Husby in Glanshammar, Sweden, where an important manorial settlement of the mid-to-late 1st millennium AD was excavated in the 1990s for a highway project. A recent intensive and comprehensive metal detector survey of the site's surviving parts has secured additional finds that cast a new light on the manor and its afterlife.

Fine copper alloy casting was amply demonstrated by the 1990s excavations. Now a die for the making of waffled gold foil has been added to this assemblage. Waffled foils formed part of gold-and-garnet cloisonné work, one of the most exclusive decorative techniques of the era.

Hack silver and coins were found scattered over the old foundation of the torn-down mead hall around AD 900, apparently forming a first phase of memorialisation that continued from about AD 1100 onward with a small Christian cemetery next to the foundation. These single coins go back at least half a century before the start of silver hoarding in the region. The silver found at Husby shows clear signs of having been used as bullion in economic transactions, with a high degree of fragmentation and many test marks.

**The Gotlandic picture stones as an expression of cultural contacts with remote areas of Western Europe – Two PhD dissertations presented in the frame of the *Ancient Images 2.0*-project.**

Sigmund Oehrl (Stavanger/Stockholm), Hannah Strehlau (Schleswig/Kiel), Lukas Albrecht (Munich), Alexandra Pesch (Schleswig)

The Gotlandic picture stones (AD 400-1100) are a unique find group that is limited to the Swedish island of Gotland. Shape and decoration serve as basis for a separation in five different typochronological groups. While the oldest picture stones of the Migration Period show predominantly geometric and ornamenting motifs, there is a shift towards scenic and figurative decorations during the Vendel and Viking Periods. Within the *Ancient Images 2.0*-project, two PhD dissertations analyse the rich ornamentation that shows evidence of cultural contacts to peripheral areas of Western Europe.

In the case of the Migration Period picture stones, we can see parallels to the pictorial language of the Late Roman Empire. Specifically on the Iberian Peninsula, Imperial tombstones resemble the early Gotlandic monuments both in the choice of motifs as well as in the composition of such. While a potential Mediterranean influence was assumed earlier, the location of these parallels in

the north-west of the peninsula emphasizes relations to the Roman provinces in the west as well as a potential Atlantic exchange route.

The more recent picture stones, especially of the Viking Age, on the other hand, seem to suggest contacts in the Far West, especially with the British Isles. Parallels can be found in Anglo-Saxon and Irish stone sculpture as well as in continental and insular book illumination of the early Middle Ages. The data speaks for an intense artistic exchange and mutual inspiration.

Despite indications of cultural contact and influence on artistic style, there are no identical copies in both presented cases. This is a testimony to the independence of the Gotlandic culture, but also to its hybridity.

### **The military chief from? – A grave assemblage of unknown provenance and the question of late antique „entangled identities“.**

Dieter Quast (Mainz), Andreas Rau (Schleswig)

In 2007, the Museum für Vor- und Frühgeschichte Berlin purchased a collection of objects from private ownership, mediated through an art dealer. The items had only partially undergone conservation and reassembling. Existing photographic documentation, the state of restoration, and the materials and techniques used for it allow the collection to be traced back to the 1970s at the least. Detailed conservational treatment and metallurgical and archaeological analyses indicate that the collection most probably consists of objects from one single burial context of the first half of the 5<sup>th</sup> century (continental D2). Among the large number of objects, which makes the collection one of the most comprehensive funerary assemblages of the Late Antique West, some specific objects stand out in particular: such as a solid gold sword hilt, a silver-gilt shield boss, a silver mouth plate inscribed with runes, the deposition of horse snaffles and an almost complete set of tableware. Even though no origin could be determined, a provenance from the Rhine-Main region is probable based on the distribution of individual components and the entire custom of burial of weapons and the structure of comparable grave finds. The lecture deals with the different levels of late antique identities that could be reflected in this grave equipment. It asks about the emergence of the late antique chamber tombs with the furnishing of weapons and touches on several questions: old and new elites in the first half of the 5<sup>th</sup> century, military and social function, the ostentatious display of social group identity, and the importance of elite knowledge. The collection was presented and discussed in a monograph in 2020.

**The chambergrave of Poprad-Matejovce in the light of new research on the North-Carpathian Group.**

Nina Lau (Schleswig), Karol Pieta (Nitra), Judyta Rodzińska-Nowak (Cracow)

In the Carpathian region of northern Slovakia and southern Poland, an archaeologically defined cultural group appears in the late 4th and 5th centuries AD: the northern Carpathian Group. After a period of lack of settlement traces in this region lasting up to 200 years after the disappearance of the Púchov culture, numerous sites now appear in the form of settlements, often hilltop settlements on earlier Bronze and Iron Age hill forts, but also in the form of caves used in different ways. In their find material, the settlements show clear indications of iron production and iron processing as well as trade and cultural contacts with the Black Sea and Mediterranean regions. Some of the settlements seem to have represented economic centres of power. The find material shows parallels to the late Przeworsk culture, whose representatives probably migrated to the region from the north in the last quarter of the 4th century AD where they formed the archaeological, northern Carpathian group.

Grave finds, on the other hand, are surprisingly rare. The chamber grave of Poprad-Matejovce, which was discovered in the Spiš region in 2005 and investigated in an international research project, closes this gap. Detailed scientific studies on the dating of the burial, the age and origin of the deceased, as well as archaeological analyses of the pottery, now raise more questions than they provide answers for the settlement history of the region. Against this background, new research has been carried out on the settlement history of the northern Carpathian group in this region. The Poprad grave is discussed with regard to questions of migration, settlement and cultural contexts in the context of these new investigations.

**Sherds as symbols – a review of the Danish finds of *terra sigillata*.**

Mogens Bo Henriksen (Odense)

In 1982 Ulla Lund Hansen published an analysis of the Scandinavian *terra sigillata* finds. Compared to other groups of Roman imports, the number was limited and consisted of vessels and sherds from only nine sites in Denmark. Of these, seven were grave finds and two came from settlement contexts, totally representing c. 15 vessels. During the last 40 years the number of sites with TS-finds has more than doubled, but only three additional grave finds have been recorded; the



remaining finds are from settlements – and one from the North Sea off Jylland. The new finds are all from the southern part of the country as the ones presented by Lund Hansen. Except for the jar from the North Sea, all finds represent single sherds or small samples of sherds. Several of these are pierced and have been used as pendants or spindle whorls. The total number of pots represented is limited compared to the abundant finds from the areas just outside Limes. In 2020 Anett Nieuwhof (Groningen) published a study of the TS-finds from the Northern Netherlands, suggesting that most of the TS reached this region close to Limes as sherds, and that they had a symbolic function more likely than being fragments of luxury tableware. This seems also to be the case for most of the Scandinavia specimen. The use of TS-sherds as symbolic objects corresponds to the symbolic use of fragments of other categories of Roman imports. For example, glass sherds were deposited in graves as single sherds or as “windows” in locally made ceramic pots. Moreover, characteristic and often zoomorphic or anthropomorphic mountings and fragments of Roman bronzes (from wagons, furniture, cauldrons, statues etc.) circulated and were used as valuable, symbolic objects in a local interpretation and context. Some of these objects might have circulated for longer periods than the grave contexts indicate. This might have implications for the overall interpretation of Roman import in Scandinavian contexts.

#### **On the edge of facts and faith. The case of the guelder rose from Jartypory, eastern Poland.**

Jacek Andrzejowski, Anna Bitner-Wróblewska, Wojciech Wróblewski (Warsaw)

A cemetery of the Wielbark Culture (in general identified with the Goths) at Jartypory in eastern Poland produced a number of interesting graves and artefacts. One of them was female burial 269. Its non-standard size – the length of grave pit reached 430 cm – turned archaeologists' attention since its outline was unearthed during excavations. The grave has been ritually opened (or robbed?) in antiquity, however its survived furniture is still fascinated and unique. Two small enamelled pedestal beakers in tin-lead bronze were discovered at the level of the thigh. They functioned as a container – one vessel was covered by an inverted bowl of identical beaker. The twin beakers were originally manufactured in Roman Britain in 2<sup>nd</sup> century AD and were recycled as a container and placed in a grave dated to phase C1b, broadly speaking mid-3<sup>rd</sup> century. This dating is confirmed by the belt ending of type Raddatz O.15. Among other elements of furniture survived in grave there are tri-layer antler comb, Roman handle of unknown purpose made of solid silver and decorated in *niello*, three glass beads, a small fragment of extremely thin glass

(probably from a vessel), small remains of silver ornaments, copper alloy needle, and two clay spindle whorls.

This interesting assemblage has been already published with detailed analysis of enamelled vessels, but we would like to discuss the grave 269 again because of the content of this special container. The botanical analysis revealed that there were placed hazelnuts and fruits of guelder rose (*Viburnum opulus* L., in Polish kalina koralowa, in German Schneeball). Hazelnuts are known from the cemeteries in Wielbark Culture and in other areas of European *Barbaricum*, but the guelder rose fruits remain an unique discovery. In many regions the guelder rose is well known in the folk, traditional medicine. It functions as a medicine (particularly dried bark), but it could be also a poison and a drug using to stupefy. Fascinating aspect appears a magic function of the guelder rose described in the Celtic, Balts, Slavs (but not Scandinavian!) mythology. A question arises who was the lady buried in grave 269 at Jartytory – a healer woman? a soothsayer? Whether she came from the local community or was an outsider, however her outstanding position in the local social structure remains undoubtedly.

#### **Ein bemerkenswertes völkerwanderungszeitliches Grab von Dąbie bei Bytów in Pommern.**

Jan Schuster (Łódź), Paweł Szczepanik (Toruń)

Auf dem mehrperiodigen Fundplatz Dąbie 28 mit Befunden von der ältere Eisenzeit bis zum Frühmittelalter wurde ein bemerkenswertes völkerwanderungszeitliches Grab freigelegt. Knochen waren in dem Nord– Süd orientierten Befund mit Steinauskleidung der Seitenwände leider nicht erhalten. Mutmaßlich neben dem Körper der verstorbenen Person lag der interessanteste Gegenstand des Inventars: ein längliches Eisenobjekt mit einer ursprünglichen Länge von 60 cm. Sein langer Schaft schloss mit einer Ringöse ab, das andere Ende ist spatelförmig gestaltet. Auf dem Schaft befinden sich ankorrodierte Textilreste, die von einem Futteral herrühren könnten. Neben dem Eisenobjekt lagen Glas- und Bernsteinperlen sowie drei Fibeln. Äußerst wichtig für die kulturelle Einordnung des Grabes ist eine Agraffe aus Kupferlegierung. Es dürfte sich um das Grab einer sozial exponierten Frau aus Südsandinavien gehandelt haben, die möglicherweise Kultpraktiken ausübte.

## POSTERS

### **Feeding Anglo-Saxon England: The bioarchaeology of an ‘agricultural revolution’.**

Helena Hamerow (PI), Amy Bogaard, Michael Charles, Emily Forster, Matilda Holmes, Mark McKerracher, Christopher Ramsey, Elizabeth Stroud, Richard Thomas (Oxford & Leicester)

The so-called medieval ‘agricultural revolution’ saw the emergence in Europe of new forms of cereal farming that fueled the exceptionally rapid growth of towns, markets and populations. In England the period from c 700-1200 saw the introduction of systematic crop rotation, widespread use of the mouldboard plough, and the adoption of increasingly low-input/low-fertility (in terms of manure and human labour) cultivation regimes. These changes led in many regions to open-field farming, one of the transformative changes of the Middle Ages and one that has left a clear mark on the landscape today. Historians and archaeologists studying these developments in the UK have had to rely on a small number of pre-Conquest texts, post-medieval maps and scatters of potsherds associated with manuring to investigate the ‘cerealisation’ of the early medieval countryside. The ERC-funded project ‘Feeding Anglo-Saxon England’ (FeedSax) addresses an ongoing debate surrounding the origins and spread of new forms of cereal farming from the perspective of bioarchaeology (the study of plant macrofossils, animal bones, and pollen). The poster will present an overview of FeedSax’s main results, which provide new and, crucially, direct evidence for the conditions in which early medieval crops were grown.

### **Beads, necklaces and female networks.**

Katie Haworth (Cambridge)

Undoubtedly the most numerous object from early medieval female burials are beads, made from glass, amber or more unusual or esoteric materials. Typically, excavated early medieval cemeteries will produce hundreds of beads. In recent years the significant typo-chronological significance of glass beads in particular has been realised, with bead types playing a foundational role in the construction of robust chronological frameworks for fifth- to seventh-century female burials in England. Yet, as composite objects, bead strings and necklaces also have huge untapped potential as a means to explore social questions, including how bead strings are assembled, social and economic networks of exchange, the construction of female identity and relationships within communities. Building on established chronological frameworks, this research combines osteological evidence and close applied analysis of the objects themselves, including an examination of their manufacture, provenance, biographies (for example, through evidence of

wear) and symbolism. The results presented will draw both on my recently completed doctoral research, which focused on bead and pendant necklaces from seventh-century female graves and revealed the importance of inter-generational gift-exchange as a mechanism underpinning necklace composition, and a new project, which explores the beads and bead strings from a large sample of fifth- and sixth century graves from eastern parts of early medieval England.

### **Finding the Fish Event Horizon – The ArchaeoFINS project.**

Sam Leggett (Edinburgh)

The ArchaeoFINS project is centred around an old and still unresolved archaeological question of when, why and where people began to eat fish again after the introduction of farming to Europe, which brought about a decline in fish consumption c. 5-10,000 years ago in favour of cereal crops and dairying. Tackling this question of aquatic consumption is timely and pertinent given recent debate over European fisheries and the important role fish have in modern foodways and economies in our region. Scotland and its islands have been identified as a watershed region for the re-introduction of fish consumption during the Middle Ages in western Europe, so it is the perfect place to investigate the mechanisms for its re-introduction and spread utilising state-of-the-art biomolecular techniques combined with traditional archaeo-historical data.

By combining multiple lines of evidence (isotopes, pottery residues, traditional archaeo-historical data) for the first time at scale (Shetland to Southern Britain and Ireland, with comparisons to continental Europe; from the Mesolithic to Late Medieval) in the region ArchaeoFINS will be able to show the nature and speed of change in fish consumption around the Irish and North Seas. It will demonstrate the cultural mechanisms behind these shifts, re-centring Scotland in the narrative of Christianisation, migration and changing foodways in the Middle Ages. ArchaeoFINS will scientifically confirm debates over the Fish Event Horizon in Europe and challenge perceptions of its catalyst, which can now be achieved due to the advances in biomolecular archaeology.

The core research questions of the project are:

- When do fish disappear from and re-enter diets in Scotland at a scale detectable by biomolecular techniques?
- Does this differ regionally within Scotland and how does this compare with Ireland, Wales and England?
- Does the uptake of freshwater and marine fish differ chronologically and spatially? And if so, do these events correlate with Christianisation or large-scale migration events (e.g. Scandinavian settlement)?

- How do the diet and mobility signatures in Scotland and Ireland fit within the broader context of Western Europe?

This poster introduces the project, its aims, objectives and methodology (including data analysis workflow) and welcomes feedback on the project in its initial stages.

### **Center's life in the margin. Hilltop settlement in Pasym (NE Poland) at the dawn of the Early Middle Ages.**

Sławomir Wadył (Warsaw), Piotr Kittel (Łódź), Mateusz Krupski (Wrocław)

The Pasym hilltop settlement is among the most interesting archaeological sites in the Masurian Lakeland. In the late 7<sup>th</sup> c. 'Olsztyn group' cemeteries and settlements were abandoned. It is the time when stronghold in Pasym was established. It was located in the symbolic center of the western zone of the Olsztyn group influence. However starting from late 7<sup>th</sup> c. this area was rather marginal. Nevertheless, it seems that Pasym was likely of great social importance for people inhabiting the south-western region of the Masurian Lakeland, and the local communities might have recognized it as their *axis mundi*.

There is one key question – why then and there? The location on the water divide between the Vistula and the Pregolya rivers could be major factor. Stronghold was erected on a strongly exposed hill that stands out from the surrounding area. It can be presumed that such a localization gave significance to the place through its dominance over the land settled by a given community.

Currently a research project is carried out aiming to investigate significance and human-environment relations of Pasym hilltop settlement. Results provide insight into how and when the stronghold was established, and into paleoenvironmental background.

### **The Gudme-Lundeborg complex 2.0.**

Katrine Balsgaard Juul (Svendborg)

The famous excavations of the Gudme and Lundeborg sites located at southeastern Funen more than 30 years ago led to numerous unique finds. Based on the extremely large settlement with magnate farm and halls at Gudme, several large gold hoards, the large burial sites of for instance

Møllegårdsmarken and Brudager, and the port of trade in Lundeborg, there is no doubt that southeastern Funen played an important role in the first Millennium AD in current Denmark. However, there is still no unifying synthesis of this important area in the first Millennium AD. The archaeological department of Svendborg Museum wish to return to a new investigation of the Gudme-Lundeborg complex 2.0.

Our aim is to investigate as many aspects of the Gudme-Lundeborg complex as possible. In order to do so, we call for researchers and institutions to join us in this large research project. We want to create a unifying synthesis of the Gudme-Lundeborg complex through various research perspectives, new scientific analyses and methods, new theoretical perspectives, and hopefully new excavations in the future at Lundeborg. With this paper we wish to address the preliminary thoughts and ideas for the upcoming research project and invite fellow scholars to join us.

#### **The Nidajno sacrificial site in the Lake District of Mrągowo and its far-reaching connections.**

Aleksandra Rzeszotarska-Nowakiewicz (Warsaw)

The aim of this paper is to present an attempt to more closely define a significant component of a new phenomenon that was registered during an excavation of a site in NE Poland. This site in the Nidajno Swamp in the Lake District of Mrągowo (Czaszkowo 1 site, Piecki commune) is the first place in Poland where were found, and examined using modern archaeological methods, traces of cult practices from the period of Roman influences involving the sinking of weapons and other prestigious elements of personal equipment in a swamp. The basis of the studies carried out is a series of unique, silver and gilded ornaments, which are an emblematic component of the assemblage of finds. Their provenance, workshop and stylistic features, in combination with the place of their deposition in antiquity, indicate a new type of relationship linking the area of the classical culture of the Mediterranean with areas of the of the North European Barbaricum, far distant from even the Empire's northern limes.

**On Land and under the (Wadden) Sea: Settlement and land-use patterns from the Roman Iron Age through the Late Middle Ages in North Frisia (Germany) investigated through Geophysics and Remote Sensing.**

Bente Sven Majchczack (Kiel), Ruth Blankenfeldt (Schleswig), Dennis Wilken (Schleswig), Hanna Hadler (Schleswig), Stefanie Klooß (Schleswig)

The Wadden Sea area of North Frisia (Germany) conceals the remains of a medieval cultural landscape, which was extensively transformed through human activity since the Roman Iron Age and was partly destroyed in major storm surges of the Late Middle Ages and Early Modern Period. Settlement in the regularly inundated, yet fertile, coastal salt marshes is first recorded for the 2<sup>nd</sup>-6<sup>th</sup> century CE, but was limited to a few favourable spots on riverbanks and high marsh ridges. This pattern was kept by the first wave of Frisian immigrants in the 7<sup>th</sup>-11<sup>th</sup> century. From the 11<sup>th</sup> century, a second wave of Frisian settlers extensively transformed the marsh area from a natural into a cultural landscape. By constructing dykes, quarrying peat and the layout of systematic drainage systems and terp settlements, not only the outer salt marshes, but also the so far marginal and uninhabitable fenlands and peat bogs further inland were colonized. Parts of this medieval cultural landscape are preserved in the Eiderstedt peninsula; other parts have been lost since the Late Middle Ages. Storm surges and setbacks in coastal protection, induced by subsidence of land surface through drainage and peat extraction, led to severe land losses. Former cultural lands turned into tidal flats of the Wadden Sea, concealing the remains of settlements and land-use.

With a combination of geophysical, geomorphological, remote sensing and archaeological survey methods it becomes possible to investigate the remains of settlements, dikes, drainage and field systems underneath the Wadden Sea sediment to reconstruct the former cultural landscape. In addition, high-resolution LiDAR scans of the Eiderstedt area provide valuable data about the systematic medieval dike, drainage and terp systems as a direct comparison to the lost settlements in the Wadden Sea and will help to establish an upscaling approach to landscape reconstruction.

**On the fringes of the Dollkeim-Kovrovo culture – the cemetery at Perdollen/Petino.**

Agata Chilińska-Früboes (Cracow)

In the 1930s, near the village of Perdollen, in East Prussia (now Petino), an interesting cemetery of the Dollkeim-Kovrovo culture was investigated. Materials dating back to the Roman period, and probably also to the Early Migration period were discovered there. This site is located on the eastern fringes of the aforementioned culture, which are extremely poorly explored from the

archaeological point of view. Apart from one brooch, all discovered artefacts were lost. The sources of knowledge about the state of research are almost exclusively archival materials and some daily newspapers. Working with the Perdollen material is like trying to put together a puzzle that has fallen apart and many pieces have been lost. The analysis of the funeral rite showed that it is slightly different than in the sites of the Dollkeim-Kovrovo culture, located further from its outskirts, and closer to the places of denser settlement. However, even on such a distance site from the limes Roman imports reached the target, a disc fibula or glass beads. Thus, this marginal area was not entirely forgotten in antiquity.

**Yatvings from the Szczeberka river region: 'wealth and power of the noble Sudovians' and the milestone of early medieval archaeology in Poland.**

Iwona Lewoc (Warsaw), Sławomir Miłek, Tomasz Nowakiewicz (Warsaw), Dawid Rembecki (Warsaw)

Yatvings are a Balt people known from historical sources to inhabit the area of present-day NE Poland. Known to Ruthenian, Polish and Teutonic chroniclers (in the latter case under the name of Sudovians), they went down in history as fierce and dangerous warriors, constantly threatening their neighbours. After losing the war with the Teutonic Knights (in the 1280s), they left their homeland, moving to the territories of Prussia, Lithuania and Poland which made Yatvingia/Sudovia an uninhabited area. The Teutonic chronicler Peter of Dusburg wrote they were distinguished among the Prussians by their 'nobility of manners' and 'wealth and power'. While the first element remains beyond the possibility of archaeological verification, the best confirmation of their 'wealth and power' is provided by the results of research conducted since 2020 on the region of Szczeberka River in the Augustów Primeval Forest.

In a hard-to-reach area in the heart of former tribal land Yatvingia, a group of closely located early medieval cremation cemeteries with above-standard rich equipment was registered. They form a distinct burial zone that functioned there in the last phase of tribal Yatvingia (12-13th century). Its recognition is a huge challenge in a few various research areas: methodological (a stratified cemetery with features similar to Aschenplätze but far from typical examples of that kind of necropolis), material (the largest collection of early medieval Balt artifacts in Polish archaeology!) and interpretative (related to the settlement topography, forms of the burial rite, Yatvingian-Prussian and Yatvingian-Lithuanian relations, etc.).

The poster presents the characteristics of this phenomenon, the current state of research, the first conclusions, and a list of the questions and research postulates.



**Pomeranian type shield-headed bracelets in Central European Barbaricum: Preliminary Results.**

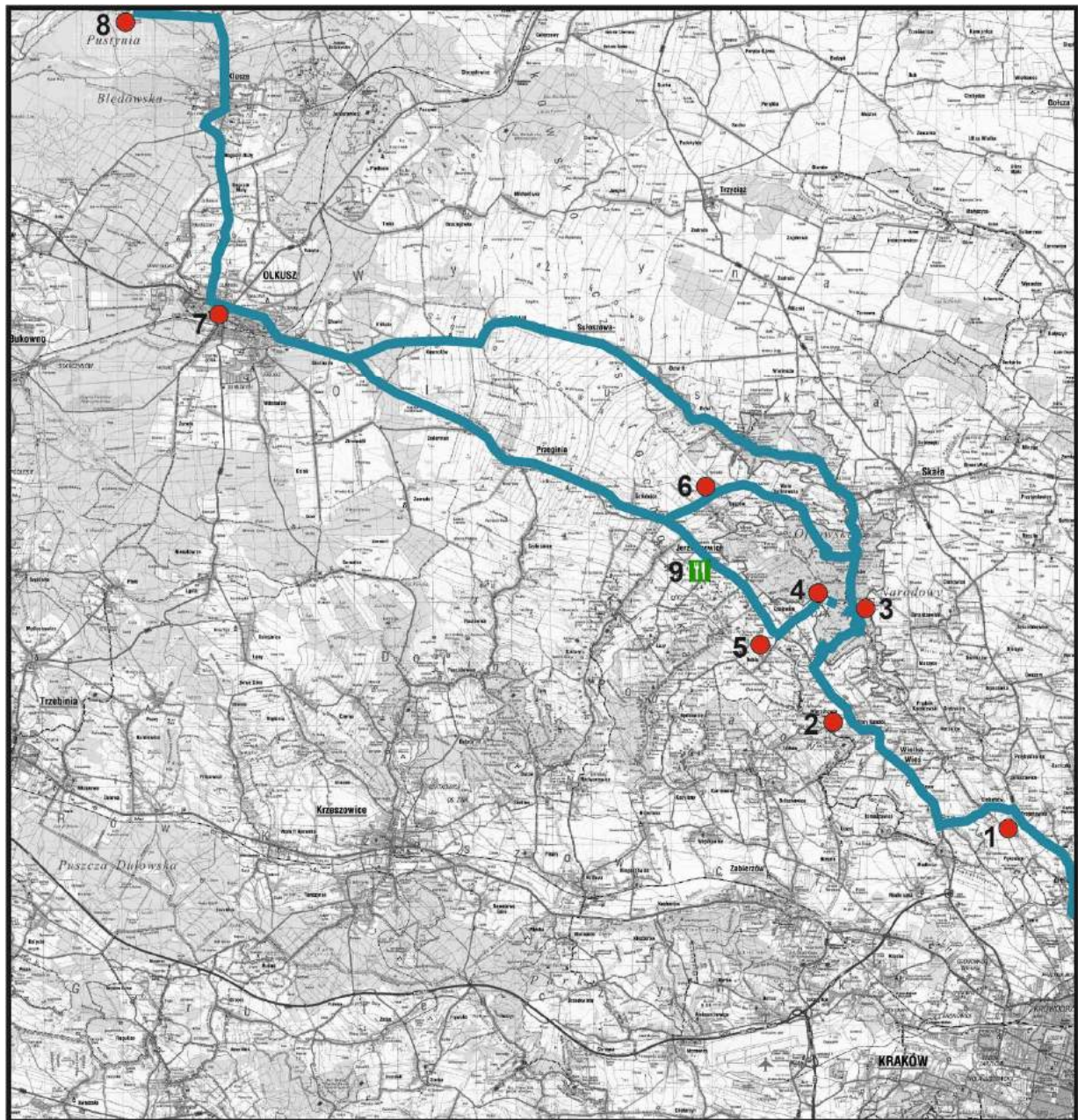
Ewa Rydzewska (Cracow)

A unique attribute of women's outfits in the Wielbark culture is various forms of armrings, found in great numbers in grave inventories, made of copper alloys, less often silver. Among this strongly diversified category of ornaments, a large group of Pomeranian type shield-headed bracelets can be distinguished, characterized by an abundance of forms and ornamentation. About forty years have passed since the appearance of the last comprehensive work on these ornaments. During this time, the source base has increased significantly, and we have better techniques for statistical and spatial analysis, which allow us to look at this group of ornaments in a new way. Re-examining their diversity may provide insight into topics such as the ways and range of functioning of the craftsmen who produce them or the ways and range of distribution of products manufactured by individual workshops. Then, the analysis of these bracelets will allow us to determine their meaning in the context of social diversity. As these ornaments occasionally appear in other areas, among others, in the forefield of the Central Danube Limes, they are associated with a whole range of questions related to the dynamics and nature of long-term cultural contacts during the Marcomannic Wars.

## EXCURSION

Monday 19<sup>th</sup> September 2022

- |             |  |
|-------------|--|
| 8:30        | Meeting at the parking lot by Radisson Blu Hotel, 14 Straszewskiego Street, Cracow.  |
| 8:45        | Departure to the Cracow Upland.  |
| 9:30        | The karstic landscape of the Prądnik River Valley and the journey to the Łokietek's Cave.  |
| 10:00-11:00 | A visit to the Łokietek's Cave – an important Roman Age/Migrations Period cave site. Toilets available near the cave.  |
| 11:00-11:30 | Coffee break by the Łokietek's Cave.   |
| 12:00       | Olkusz. A walking tour through the town square and a visit to the <i>Underground Olkusz</i> exhibition. Toilets available at the <i>Underground Olkusz</i> Museum. |
| 14:00       | Departure to the Błędowska Desert (Dąbrówka-Chechło looking point).  |
| 14:30-15:00 | Błędów Desert.   |
| 15:30       | Departure to Cracow (via Prądnik River Valley).  |
| 16:30       | Dinner in <i>Chochotowy Dwór Restaurant</i> in Jerzmanowice.   |
| 19:00       | Arrival in Cracow, parking lot by Radisson Blu Hotel, 14 Straszewskiego Street, Cracow.  |



**Excursion route of the Sachsensymposium 2022 – Cracow Upland tour.**

Excursion stops: Ojców – Prądnik Valley (3), Łokietek's Cave (4), Olkusz (7), Dąbrowka near Chechło – Błędów Desert (8), Jerzmanowice (dinner) (9).

Other points of interest discussed in the excursion guide: Giebułtów (1), Wielka Wieś (2), Bębło (5) and Jerzmanowice (6).

## “Princely” burial from Giebułtów

The Early Roman cremation cemetery at Giebułtów is located on the eastern edge of a small settlement cluster and, so far, it is the only burial ground associated with it. In 1922, a so-called "princely" burial was discovered at the cemetery; the grave is counted among the richest burials from the Roman Period in Central Europe.

The grave contained nine fragmentarily preserved bronze Roman vessels – a cauldron designed to be hung over a fire, two buckets – one profiled, the other of type E 24, a bowl of type E 91, two bowls of type E 97, two jugs of type E 125 and another jug of undetermined typology. The items were crafted in workshops located in Italy or Gaul. A glass vessel, melted during cremation, should also undoubtedly be associated with a workshop operating within the borders of the Roman Empire, just like two earthenware vessels, one of which was a *terra sigillata* bowl decorated with two applied double spirals and a stamp in *planta pedis*, manufactured in the third quarter of the 1st century AD in Tralles in Asia Minor (pres. Aydın in Turkey). It found its way to the Upper Vistula River basin probably via the northern Black Sea coast, where such bowls are known in vast quantities. The other imported earthenware vessel in the Giebułtów inventory is a large (capacity of about 22 litres) table amphora for wine, which incidentally, was used as a cinerary urn. The vessel is characterised by a smooth texture and yellow colour and is decorated with a wide band painted in pink. The origin of the amphora is not entirely clear. On the one hand, it is similar in form to amphorae of type *Gauloise 7*, however, the way it is made resembles ceramics produced in the Bosporan Kingdom, in the Crimean Kherson. It is possible that this artefact reflects Hellenistic traditions.

Other clay vessels discovered in the princely grave, namely two bowls with legs, a jug and a miniature vessel, representing grey pottery, also appear to have been imported. The legged bowls, interpreted as censers, are associated with the Sarmatian environment. Also of eastern origin is the jug, which, although modelled on forms popular, for example, in Gaul and Britain, has direct analogies in the 1st–3rd century AD in the areas controlled by the Sarmatians. The miniature vessel with a duct, probably used for infant feeding, is also an imported artefact. As it turns out, the only specimen of local origin among the ceramic grave goods was a hand-made clay bowl of the Przeworsk Culture.

The grave also contained a gold necklace, preserved fragmentarily as a piece of a chain braided from eight wires, representing a Roman form. Moreover, the burial yielded lumps of melted silver (remains of an ornament, part of a costume or a vessel), as well as a single-layer bone comb, scissors and two iron knives (one of which may have served as a razor) and three keys (indirectly attesting to the presence of three caskets, at least one of which came from Pannonia, as evidenced by the remains of bronze fittings on one of the keys). Among the aforementioned artefacts, the richly decorated comb is particularly noteworthy. This specimen represents Thomas type D, characteristic of phase B<sub>2</sub>. It is also the latest dating artefact found among the grave goods.

The results of the analysis of the above-characterised inventory place the chronology of the princely burial from Giebułtów at the beginning of phase B<sub>2</sub>, no later than the last quarter of the 1st century.

As the cremated human remains were lost, we unfortunately do not have anthropological data to determine the sex of the deceased. However, taking into account the fact that the preserved grave goods include both male- (bronze cauldron, presumed razor) and female-related (caskets and the gold necklace) items, it is fair to think that the princely grave from Giebułtów is in fact a mass burial, most likely a double one, containing the remains of a man and a woman. It can be suspected that the man buried therein was a chieftain of a local community, while the woman probably came from another cultural area, as indicated by the gold necklace, foreign to Central European *Barbaricum*.

In 1961, rescue excavations carried out at Giebułtów uncovered two more cremation burials, also characterised by rich furnishings. Grave no. 1 yielded a melted metal sheet fragment from an unspecified bronze vessel, as well as iron objects: a one-piece belt buckle with a semi-circular frame, a ring to mount on a belt, a fire striker and a javelin head. Although the dating of this burial has been established as phase B<sub>2</sub>, the grave goods are of later chronology than those from the princely burial.

A fragment of a bronze bucket (type E 21–22?), a fragment of an iron knife (?) and over a dozen potsherds were discovered in grave 2. It seems that the burial in question is a tad older than the princely grave from the beginning of phase B<sub>2</sub>.

In conclusion, it should be stated that the Giebułtów cremation cemetery, although known from only three graves, is one of the most intriguing burial grounds of the Early Roman Period in Małopolska.

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Fig. 1. Giebułtów. Selected grave goods from the princely burial. *After: Dobrzańska 2006; 2018.*

## Jurassic flint

There is no doubt that flint deposits were one of the most important natural resources for the prehistoric communities that either inhabited or just penetrated the southern part of the Kraków-Częstochowa Upland. This is because the so-called Jurassic flint found in this area is characterised by excellent flaking qualities, therefore, it was a desirable raw material for making tools all the way from the Palaeolithic to the Bronze Age.

As for the availability of Jurassic flint, it should be noted that in the Kraków-Częstochowa Upland siliceous rocks occur in three types of clusters: in solid rock, in Tertiary clays and in Quaternary formations. However, as far as the possibility of exploiting flint deposits is concerned, it is the natural exposures of clusters of siliceous rocks, usually a result of natural factors, including rainwater and broadly understood erosion, that are of import. These factors determined that many deposits of this valuable raw material were relatively easy to access.

During the Neolithic, when flint deposits were close to the surface, they were extracted from shallow pits. In some cases, when the deposit was found to be abundant, while the loess cover over it was characterised by significant thickness, flint was mined by sinking shafts. Traces of flint mining are known from several sites along the tour route – from Bębło, Jerzmanowice-Dąbrówka and Saspów. The remains of the best-explored flint mine can be found in that last village, where they are located in the initial section of the Saspowska Valley.

The Jurassic flint mine in Saspów was investigated primarily in the 1960s and 1970s, during the excavations of Jacek Lech and Anna Dzieduszycka-Machnikowa. The uncovered remains of the mine consisted not only of the remnants of mine shafts but also of storage pits for raw material, either prepared for processing or already pre-processed, i.e., flint nodules, pre-core forms and flint cores in varying stages of reduction. As the pits also contained copious quantities of charcoal, it was concluded that they may have originally had wooden walls, which were later burned.

The mining shafts were in the form of very deep pits (up to 5 m in depth), whose dimensions at the discovery level averaged 8 x 5.5 x 6 m. No corridors or more numerous side shafts were observed within their area. A total of nine undisputed and seven presumed mine shafts have been recorded.

The Jurassic flint mine discovered in Saspów, covering an area of about 4–5 hectares, was in use during the Neolithic. The beginnings of its exploitation coincide with the development of first agricultural cultures, represented by the communities of the Linear Pottery Culture. The period of the greatest prosperity of the Saspów mine falls on the later Neolithic phases, corresponding to the development of the cultures of the so-called Lengyel-Polgár complex (circle), primarily in the 5th millennium cal. BC.

During the Neolithic, it is likely that groups probably consisting of several miners would be present at the site of the Saspów mine. They were engaged in the extraction of flint raw material and its initial, preliminary processing in the mine's workshops, preparing pre-core forms, roughouts and blade blanks.

As indicated by the excavation results, miners – whose work cycle in the mining field probably lasted from a few to more than a dozen days – used nearby caves and rock shelters as temporary camps.

The flint extracted from the Sączów mine was then distributed to people living in rural settlements. One may suspect that it also served as a means of indirect exchange – after all, in the Early and Middle Neolithic, Jurassic flint from around the Kraków region reached the territory of today's Czechia, Slovakia and Hungary.

The history of flint mining in the immediate area by no means ends at the Neolithic. The deposits were also exploited later, including in the modern period, when flint was used as part of the flintlock mechanism in firearms. Numerous traces of so-called gun-flint workshops are known from villages along the tour route, including Wielka Wieś. Considering written sources, it should be assumed that gun-flint workshops experienced their most intensive development in the first half of the 19th century, while the large-scale manufacture of gun-flints ceased around 1880–1890.

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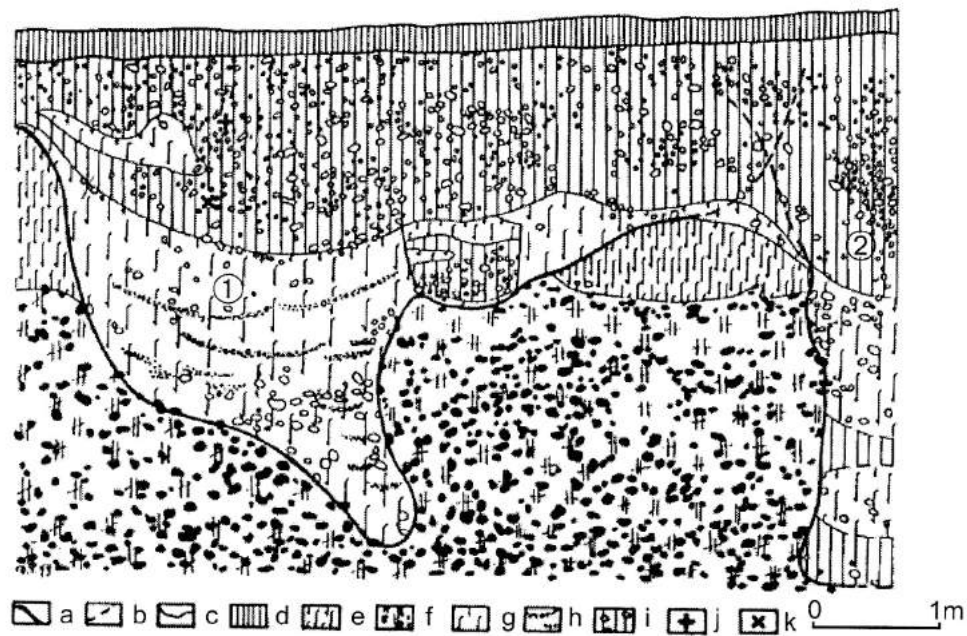


Fig. 1. Saspów – mining shafts 1 and 2. *After: Lech 2006*



Fig. 2. Vicinity of Jerzmanowice. Jurassic upland with traces of a flint workshop

## The Prądnik Valley and Ojców National Park

The middle part of the Prądnik Valley, enveloped in the karst landscape of the Ojców National Park, is considered the most picturesque corner of the entire Kraków-Częstochowa Upland. Its axis are the fast-flowing waters of the 34-kilometre-long Prądnik River (whose name is derived from the Polish word “prędko” – rapid), which runs along the bottom of a deep ravine with vertical, rocky slopes. Imposing calciferous rocks (Upper Jurassic in age) are often situated at the mouth of smaller side valleys or karst ravines branching of the main valley.

In particular, one special peculiarity of the immediate area are the numerous caves and rock shelters attributed to the karst activity of underground waters. As many as 757 such places have been recorded in the entire Prądnik River basin. The longest caves in the Prądnik Valley include the Łokietek Cave (320 m), Ciemna Cave (230 m) and Zbójecka Cave (189 m)

The splendour of the local nature is matched by the cultural value of the Valley. The oldest archaeological materials in the Ojców National Park date back to the Middle Palaeolithic, when the caves were used by the Neanderthal man (the Micoquian-Prądnik cultural tradition). They are represented, among others, by the artefacts from the Ciemna Cave and Wylotne Rock Shelter, with the characteristic presence of asymmetric flint knives (of the so-called Prądnik type), side scrapers, bifaces and so-called *groszaki* (coin-like scrapers). Considering the most recent discoveries, the classic Prądnik assemblages, containing Prądnik-type knives, may be dated to 70–40 thousand years ago. However, the oldest assemblages with bifaces from the Ciemna Cave may be dated to before the last glaciation period, so they could be more than 120 thousand years old. Moreover, valuable finds associated with the modern, in anatomical sense, man (Upper Palaeolithic) may be encountered in other caves located in the Prądnik River basin. Of particular note is the Maszycka Cave, which yielded human remains and a unique assemblage attributed to the Magdalenian Culture. Dating back to 14 280–15 800 years ago, it is represented, among others, by objects made of bone. The Neolithic period, associated with the advent of agriculture, is represented in the Ojców National Park mainly by artefacts made of clay, flint and bone, which have been recovered from the caves. Most of these items are remnants of the communities of the so-called Lengyel-*Polgár* cycle (mainly the 5th millennium BC). The Jurassic flint mine at Sąspów is also of the same chronology. The only remains of Bronze Age and Early Iron Age settlement in the area of the Ojców National Park are the Lusatian Culture settlement on Castle Hill in Ojców and a few artefacts found in the caves.

The Roman Period and the Migration Period are represented mainly by numerous finds from the caves, such as sherds of pottery vessels (including tableware with smooth surfaces and storage vessels of the *Krausengefässe* type), ornaments and dress accessories (e.g., brooches, glass beads, amber pendants and belt fittings) as well as coins minted in the Roman Empire. Most, albeit not all, of the finds are related to the activity of the Przeworsk Culture community. The vast majority of the artefacts come from the Younger Roman or the Late Roman Period or an early phase of the Migration Period. Some can without a doubt be attributed exclusively to the Migration Period, for example, a silver-plated copper-alloy strap end, adorned with a stamp decoration in the *Untersiebenbrunn* style, which is dated to the first half of the

5th century AD. It was discovered in the Ciemna Cave (the artefact in question can be found in the logo of Kraków's *Sachsensymposion*).

What is extremely interesting is the fact that some of the human skeletal remains, found both during the older as well as the more recent excavations carried out in the caves, are also associated with the Younger Roman or the Late Roman Period and the early phase of the Migration Period, which points to the exceptional importance of the caves during the period in question.

The oldest medieval finds from around the Ojców area date back to the end of the 11th century. They are represented by a coin deposit (hoard) containing, among others, coins issued by the palatine Sieciech, which was found in the Okopy Wielka Dolna Cave. Rich medieval finds were also yielded by other cave sites (Ciemna Cave, Łokietek's Cave, Górna Cave in Okopy), among which of particular note is the military equipment dating from the second half of the 13th century to the first half of the 14th century. The Middle Ages in the Ojców National Park are also represented by defensive sites. The oldest come from the 13th century (the hillfort of Duke Konrad of Masovia on Okopy Mountain and the hillfort at Sułoszowa). Moreover, a fortified Poor Clares monastery functioned in Grodzisko near Skała in the second half of the 13th century. The first masonry fortresses appear in the area (the Ojców castle and the fortress in Pieskowa Skała) after the mid-14th century, both built probably by King Casimir the Great. Both castles are open to tourists, and the remains of the Ojców fortress are under the care of the Ojców National Park.

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Fig. 1. Prądnik Valley. *Photo Jakub Baran (Ojców National Park)*



Fig. 2. Ciemna Cave in Ojców. *Photo Robert Cieślík (Ojców National Park)*

## Łokietek's Cave

The Łokietek's Cave, located in the massif of Chełmowa Mountain in the Sąspowska Valley, is one of the largest caves of the entire Kraków-Częstochowa Upland. Its total length is 320 meters, with a denivelation of only seven metres. The main passage of the cave consists of four consecutive chambers, the largest of which, known as the Bedroom (Polish: *Sypialnia*) and the Knights' Hall (Polish: *Sala Rycerska*), are located in the final parts of the grotto. These names (as well as the name of the cave itself) refer to the legend of Prince Ladislaus Łokietek, who – while battling the supporters of Wenceslas II, King of Bohemia and Poland (1300–1305) – supposedly found refuge in the cave in question. Łokietek eventually triumphed over his political opponents, his victory culminating in the conquest of Kraków in 1306 and his coronation as King of Poland in 1320. It should be added that the first recorded trace of the legend dates to 1691, when the Łokietek's Cave was mentioned under the name of *Spelunca Regia* (Royal Cave).

The cave in question is one of the most important archaeological sites in the immediate area. The first excavations were undertaken here back in 1871 through the efforts of the then owner of Ojców, Count Jan Zawisza, who came across numerous skeletal remains, both human and those belonging to a cave bear. The results of his work were quickly published, which solidified the belief in the cave's archaeological potential and encouraged its further exploration. Excavations were next carried out in the late 19th and early 20th century, initiated by the distinguished cave researcher Stanisław Jan Czarnowski (1896, 1899, 1910–1911), and a little later the cave was explored by Stefan Krukowski (1919). However, it was not until several decades later that archaeological research in the cave had resumed with the works of Krzysztof Sobczyk and Walery Sitlivy, conducted in 1998–2000. A total of four trenches were established during the aforementioned excavations. Trench 1 (T1) was placed in front of the entrance to the cave, in the so-called "Side Shelter". Trench 2 (T2) was established on the left side of the initial part of the Main Corridor, in front of the second gate leading to the interior of the cave. Trench 3 (T3) was placed in the first recess of the Main Corridor, while Trench 4 (T4) was established outside the cave, near its north-western part, at the site of the presumed second entrance to the Main Chamber. In 2015, a verification excavation saw an expansion of Trench T3. That last investigation, led by Michał Wojenka and Jarosław Wilczyński, focused on exploration and sampling of the youngest, Holocene-related, sediments.

For the assessment of the stratigraphy of the cave fill, it is necessary to refer only to the results of the most recent works (1998–2000 and 2015) and primarily to the observations made in Trench T3. The upper sediment sequence is a set of Holocene layers – very extensive for cave conditions – extending to a depth of about 70–80 cm. Its uppermost part is composed of mixed humus layers, containing numerous artefacts from the Early Bronze Age (mainly the Mierzanowice Culture), from the Younger Roman or the Late Roman Period to the early phase of the Migration Period (Przeworsk Culture, represented by pottery sherds and ornaments), from the Middle Ages (mainly the 13th–14th centuries) and from the modern period (mainly the 17th–18th and 19th centuries), as well as numerous animal and human skeletal remains and remnants of destroyed hearths. The lower layers, with well-preserved remains of campfires, contain traces of settlement from the Early Bronze Age and, above all, from the Eneolithic (the Baden Culture from the end of the 4th and beginning of the 3rd millennium BC). The lowermost Holocene strata are related to the settlement of the Neolithic population of the Lengyel-Polgár cycle (5th – early 4th millennium BC) and, like the previously characterised layers, contain traces of hearths and numerous animal skeletal remains.

Below the Neolithic settlement levels lie two rubble-filled loess deposits containing Palaeolithic flint inventories, including Levallois cores and flakes. In terms of cultural affiliation, the inventories are a mixture of Middle and Upper Palaeolithic elements, with a predominance of elements characteristic of the Middle Palaeolithic (the so-called Micoquian and Levallois-Mousterian complexes).

Michał Wojenka

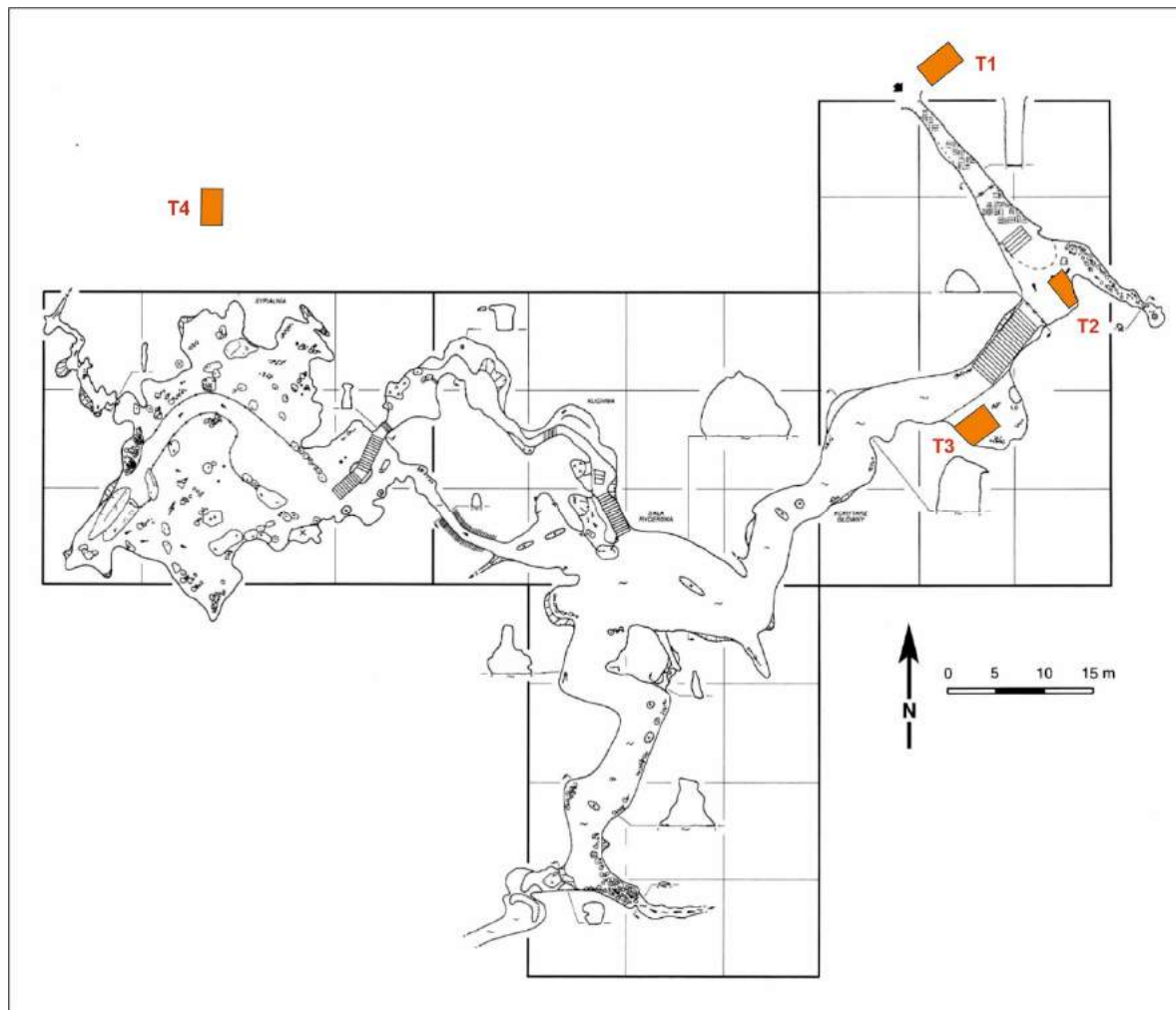


Fig. 1. Map of the Łokietek's Cave with the location of Trenches T1-T4



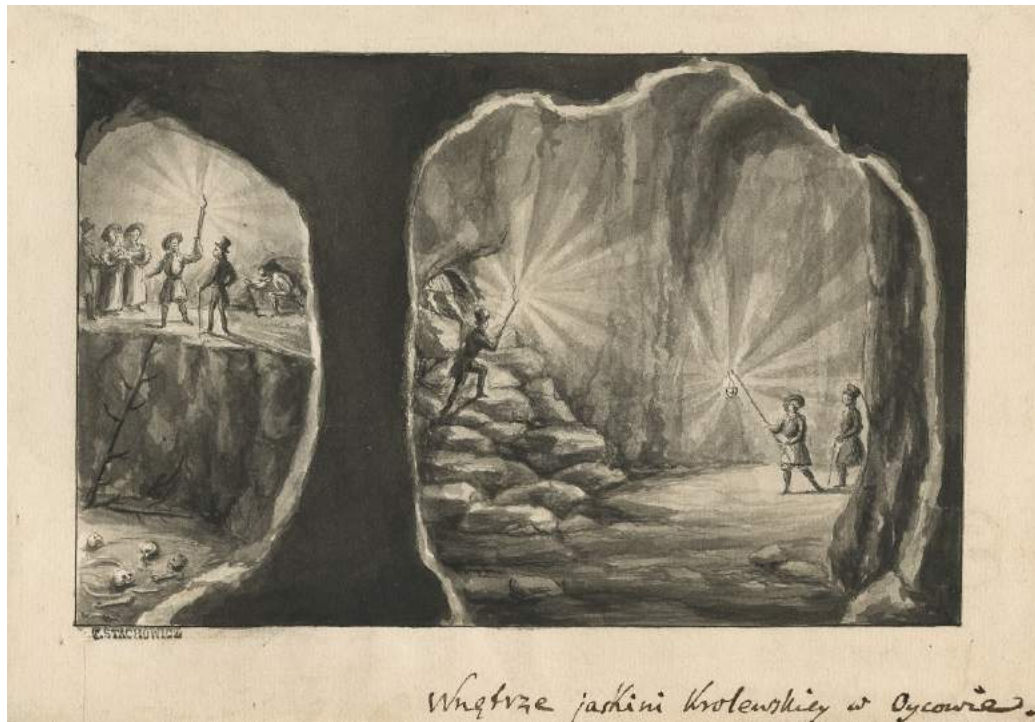


Fig. 2. Interior of the Królewska (Łokietek) Cave as drawn by Teodor Baltazar Stachowicz, prop. ca. 1835.  
Courtesy of the Museum of the Lubomirski Princes, The Ossolinski National Institute, Wrocław



Fig. 3. Southern profile of Trench T3 (upper part) with a set of Holocene sediments visible

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## Olkusz

The founding and later development of Olkusz, also known as the Silver City, are tied to the exploitation of the nearby deposits of lead and silver, dating back all the way to the Middle Ages. The first mentions of Olkusz lead come from 1257 and confirm the existence of an already-developed mining centre. It may be suspected that the earth-and-timber hillfort that functioned in Stary Olkusz from the second half of the 12th century to the early 14th century was also connected to the mining of lead and silver. It was located approx. 3 km to the west of the present-day city centre.

Olkusz received its urban charter before the end of the 13th century (as indicated by a mention of an Olkusz townsman named Henryk, recorded in 1299). The oldest municipal centre was surrounded with an earth-and-timber rampart and a moat. It was not until the mid-14th century, during the reign of King Casimir the Great, that Olkusz received masonry fortifications. They are first mentioned, albeit indirectly (a reference to a house located *intra muros*), in 1366. As a result of the fortification of the town, its plan formed a very regular shape of a rectangle measuring 320 × 225 m. The town wall, approx. 1,100 m in length, was dotted with towers (about 15 of them) erected on a rectangular plan. The city could most likely be entered through one of two gates – the Sławkowska Gate to the west, and the Krakowska Gate to the east.

Olkusz enjoyed its highest prosperity in the second half of the 16th century. In the 1570s, Olkusz adits delivered approx. 920–1,100 tonnes of lead and 300 kg of silver per year. The royal mint started its operation in the city in 1579 and functioned until the end of the 16th and the beginning of the 17th century. A systematic decline of the town begun in the 17th century, due to the exhaustion of ore deposits and the general economic situation of the Republic of Poland after the Swedish invasion in 1655–1657.

One of Olkusz tourist attractions, on top of numerous medieval monuments (e.g., St Andrew's Basilica, Augustinian monastery) as well as modern ones, is a recently opened exhibition *Underground Olkusz* in the basement of a 14th-century town hall, a visit to which is included in our tour.



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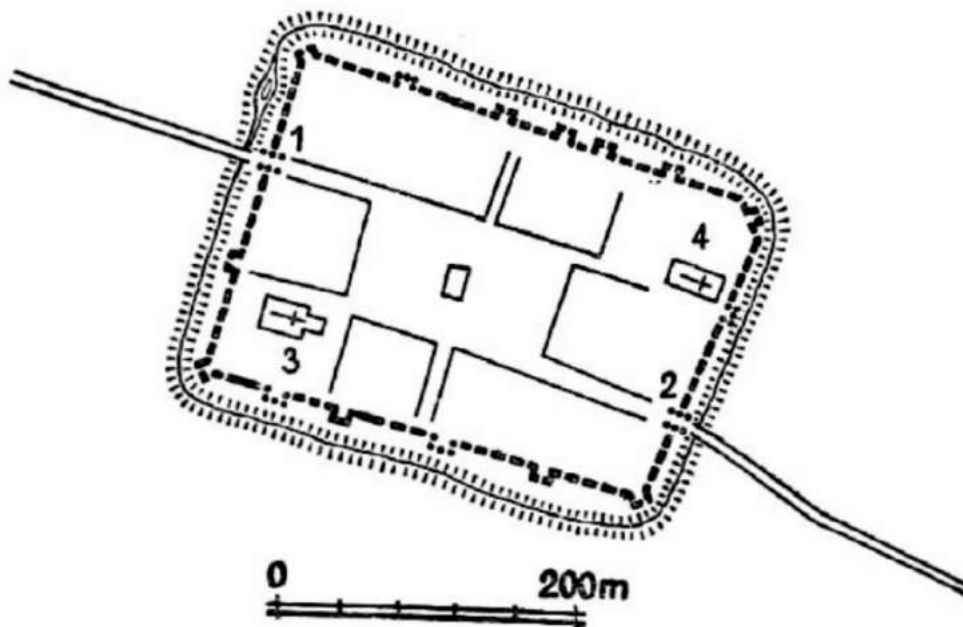


Fig. 1. Olkusz – medieval town plan. 1 – Sławkowska Gate; 2 – Krakowska Gate; 3 – St Andrew's parish church; 4 – Augustinian church. After: Widawski 1973



Fig. 2. The view of Olkusz from the south, Dominik Deutsch, 1761 r.

## The Błędów Desert

Situated at the border of the Olkusz Upland and the Silesian Upland, the Błędów Desert, currently approx. 7 km<sup>2</sup> in size, is the largest area of loose sands in Central Europe. The origin of the desert dates back to the Pleistocene, when a process of aeolian accumulation of sand and gravel deposits began in local valleys. Over time, the valleys – formed in dolomitic and calcareous Triassic rocks – were buried completely, forming an extensive area of post-glacial sand accumulation. The depth of the sand deposits is estimated at 40 metres on average, although there are places where it approaches 70 metres.

At the beginning of the Holocene (about 11–10,000 years ago), as the climate warmed, the desert area was overgrown with pine forests. Considering the state of research to date, it should be assumed that the deforestation of the area began around the 12th century, and later clearly intensified due to the growing demand for substantial amounts of timber needed for the development of mining and

metallurgical centres located near Olkusz, which exploited local lead and silver ores. It is believed that the desertification of the landscape intensified in the 16th and 17th centuries.

Although the Błędów Desert is not a typical natural desert, phenomena characteristic of deserts proper, i.e., mirages and sandstorms can still be encountered there. Moreover, intense winds cause the formation of dunes, which can reach up to 20 metres in height.

Archaeological excavations carried out in the Desert to date indicate that the beginnings of human activity in the area date back to the Old Stone Age. The greatest contribution came from the excavations conducted by Bolesław Ginter in 1962, which proved the presence of flint artefacts made both of local Jurassic flint and chocolate flint imported from the Świętokrzyskie Mountains, among others. These materials should be attributed to the Late Palaeolithic and Mesolithic (from 12–10,000 years BP to about 7,400 years BP). Further artefacts have been uncovered in the course of long-term surface surveys, which have also yielded information on dozens of potential archaeological sites located in the Desert, dating from the Late Palaeolithic to modern times.

In the 20th century – including the interwar period, German occupation as well as the post-war era – the Błędów Desert served as a military training ground.

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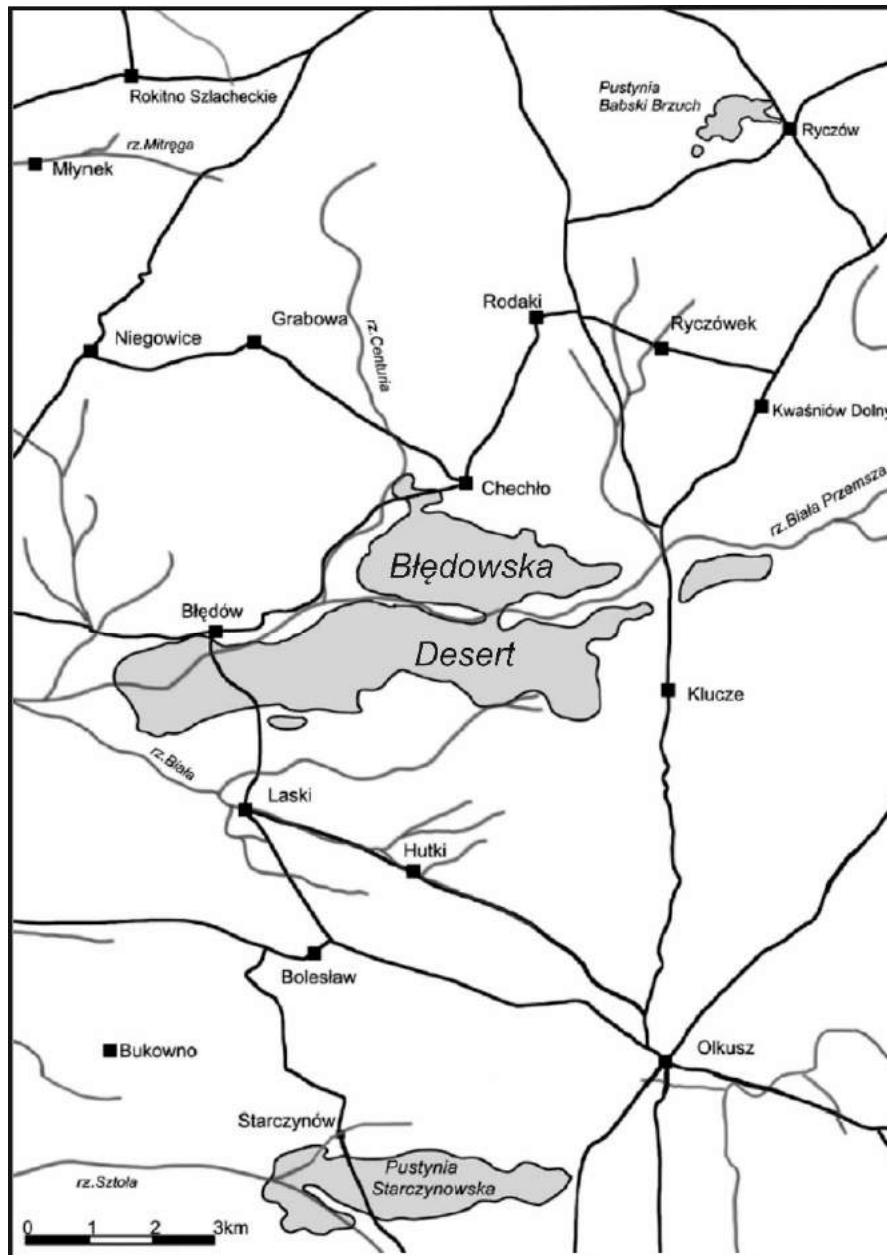


Fig. 1. Location of the Błędów Desert. After: Rozmus 2015 (modified)



Fig. 2. Pre-war view of the Błędów Desert. *After: Głowacka et al. 2017*

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